**Cisco Systems**

Cisco UCS B440 M1 (Intel Xeon L7555, 1.87 GHz)

| SPECint_rate2006 | 661 |
| SPECint_rate_base2006 | 617 |

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

Test date: Sep-2010
Hardware Availability: May-2010
Software Availability: Jan-2010

### Hardware

<table>
<thead>
<tr>
<th>Component</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU Name:</td>
<td>Intel Xeon L7555</td>
</tr>
<tr>
<td>CPU Characteristics:</td>
<td>Intel Turbo Boost Technology up to 2.53 GHz</td>
</tr>
<tr>
<td>CPU MHz:</td>
<td>1867</td>
</tr>
<tr>
<td>FPU:</td>
<td>Integrated</td>
</tr>
<tr>
<td>CPU(s) enabled:</td>
<td>32 cores, 4 chips, 8 cores/chip, 2 threads/core</td>
</tr>
<tr>
<td>CPU(s) orderable:</td>
<td>1,2,3,4 chips</td>
</tr>
<tr>
<td>Primary Cache:</td>
<td>32 KB I + 32 KB D on chip per core</td>
</tr>
<tr>
<td>Secondary Cache:</td>
<td>256 KB I+D on chip per core</td>
</tr>
<tr>
<td>L3 Cache:</td>
<td>24 MB I+D on chip per chip</td>
</tr>
<tr>
<td>Other Cache:</td>
<td>None</td>
</tr>
<tr>
<td>Memory:</td>
<td>512 GB (64 x 8 GB 4Rx4 PC3-8500R, ECC)</td>
</tr>
<tr>
<td>Disk Subsystem:</td>
<td>146 GB SAS, 15K RPM</td>
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<tr>
<td>Other Hardware:</td>
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</table>

### Software

<table>
<thead>
<tr>
<th>Component</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating System:</td>
<td>SuSe Linux Enterprise Server 11 (x86_64), Kernel 2.6.27-19-5-default</td>
</tr>
<tr>
<td>Compiler:</td>
<td>Intel C++ Professional Compiler for IA32 and Intel 64, Version 11.1 Build 20091130 Package ID: l_cproc_p_11.1.064</td>
</tr>
<tr>
<td>Auto Parallel:</td>
<td>No</td>
</tr>
<tr>
<td>File System:</td>
<td>ext3</td>
</tr>
<tr>
<td>System State:</td>
<td>Run level 3 (multi-user)</td>
</tr>
<tr>
<td>Base Pointers:</td>
<td>32-bit</td>
</tr>
<tr>
<td>Peak Pointers:</td>
<td>32/64-bit</td>
</tr>
<tr>
<td>Other Software:</td>
<td>MicroQuill SmartHeap Library V8.1</td>
</tr>
</tbody>
</table>
Cisco Systems
Cisco UCS B440 M1 (Intel Xeon L7555, 1.87 GHz)

**SPEC CINT2006 Result**

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## Cisco Systems

**Cisco UCS B440 M1 (Intel Xeon L7555, 1.87 GHz)**

<table>
<thead>
<tr>
<th>CPU2006 license:</th>
<th>9019</th>
</tr>
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<tbody>
<tr>
<td>Test sponsor:</td>
<td>Cisco Systems</td>
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<tr>
<td>Tested by:</td>
<td>Cisco Systems</td>
</tr>
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<td>May-2010</td>
</tr>
<tr>
<td>Software Availability:</td>
<td>Jan-2010</td>
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</table>

### Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
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<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
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<tbody>
<tr>
<td>400.perlbench</td>
<td>64</td>
<td>1202</td>
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<td>1199</td>
<td>522</td>
<td>1205</td>
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<td>1021</td>
<td>613</td>
<td>1024</td>
<td>611</td>
<td>1022</td>
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<td>401.bzip2</td>
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<td>1558</td>
<td>396</td>
<td>1555</td>
<td>397</td>
<td>1557</td>
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<td>64</td>
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<td>403.gcc</td>
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<td>1043</td>
<td>494</td>
<td>1040</td>
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<td>1045</td>
<td>493</td>
<td>64</td>
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<td>429.mcf</td>
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<td>779</td>
<td>750</td>
<td>777</td>
<td>751</td>
<td>784</td>
<td>745</td>
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<td>749</td>
<td>777</td>
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<td>445.gobmk</td>
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<td>1102</td>
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<td>1012</td>
<td>664</td>
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<td>665</td>
<td>1013</td>
<td>663</td>
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<tr>
<td>456.hmmer</td>
<td>64</td>
<td>704</td>
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<td>851</td>
<td>702</td>
<td>851</td>
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<td>1080</td>
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<td>458.sjeng</td>
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<td>462.libquantum</td>
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<td>864</td>
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<tr>
<td>464.h264ref</td>
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<td>804</td>
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<td>813</td>
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<tr>
<td>471.omnetpp</td>
<td>64</td>
<td>925</td>
<td>432</td>
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<td>471</td>
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<tr>
<td>473.astar</td>
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<td>1169</td>
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<tr>
<td>483.xalancbmk</td>
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<td>661</td>
<td>668</td>
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<td>663</td>
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<td>668</td>
<td>662</td>
<td>667</td>
<td>663</td>
<td>667</td>
</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

### General Notes

Binaries were compiled on SLES 10 with Binutils 2.18.50.0.7.20080502

### Base Compiler Invocation

**C benchmarks:**

```
icc -m32
```

**C++ benchmarks:**

```
icpc -m32
```

### Base Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_IA32

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Continued on next page

Standard Performance Evaluation Corporation

info@spec.org

http://www.spec.org/

Page 2
Cisco Systems
Cisco UCS B440 M1 (Intel Xeon L7555, 1.87 GHz)

<table>
<thead>
<tr>
<th>SPECint_rate2006 = 661</th>
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<tr>
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</tr>
</tbody>
</table>

**Base Portability Flags (Continued)**

<table>
<thead>
<tr>
<th>Base Portability Flags</th>
<th>462.libquantum: -DSPEC_CPU_LINUX</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>483.xalancbmk: -DSPEC_CPU_LINUX</td>
</tr>
</tbody>
</table>

**Base Optimization Flags**

C benchmarks:
- -xSSE4.2 -ipo -O3 -no-prec-div -static -opt-prefetch

C++ benchmarks:
- -xSSE4.2 -ipo -xSSE4.2 -no-prec-div -opt-prefetch -Wl,-z,muldefs

**Base Other Flags**

C benchmarks:
- 403.gcc: -Dalloca=_alloca

**Peak Compiler Invocation**

C benchmarks (except as noted below):
- icc -m32
  - 401.bzip2: icc -m64
  - 456.hmmer: icc -m64
  - 458.sjeng: icc -m64
  - 462.libquantum: icc -m64

C++ benchmarks (except as noted below):
- icpc -m32
  - 473.astar: icpc -m64

**Peak Portability Flags**

- 400.perlbench: -DSPEC_CPU_LINUX_IA32
- 401.bzip2: -DSPEC_CPU_LP64
- 456.hmmer: -DSPEC_CPU_LP64
Cisco Systems
Cisco UCS B440 M1 (Intel Xeon L7555, 1.87 GHz)

SPEC_int_rate2006 = 661
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CPU2006 license: 9019
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Test date: Sep-2010
Hardware Availability: May-2010
Software Availability: Jan-2010

Peak Portability Flags (Continued)

458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
473.astar: -DSPEC_CPU_LP64
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) -static(pass 2)
              -prof-use(pass 2) -ansi-alias

401.bzip2: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
            -O3(pass 2) -no-prec-div(pass 2) -static(pass 2)
            -prof-use(pass 2) -opt-prefetch -ansi-alias -auto-ilp32

403.gcc: -xSSE4.2 -ipo -O3 -no-prec-div -static

429.mcf: -xSSE4.2 -ipo -O3 -no-prec-div -static -opt-prefetch

445.gobmk: -xSSE4.2(pass 2) -prof-gen(pass 1) -prof-use(pass 2) -O2
           -ipo -no-prec-div -ansi-alias

456.hmmer: -xSSE4.2 -ipo -O3 -no-prec-div -static -unroll2
           -ansi-alias -auto-ilp32

458.sjeng: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
           -O3(pass 2) -no-prec-div(pass 2) -static(pass 2)
           -prof-use(pass 2) -unroll4 -auto-ilp32

462.libquantum: -xSSE4.2 -ipo -O3 -no-prec-div -static -auto-ilp32
                -opt-prefetch

464.h264ref: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
              -O3(pass 2) -no-prec-div(pass 2) -static(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

473.astar: -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=routine -Wl,-z,muldefs
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Peak Optimization Flags (Continued)

483.xalancbmk: basepeak = yes

Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

The flags file that was used to format this result can be browsed at http://www.spec.org/cpu2006/flags/Intel-ic11.1-linux64-revE.20100316.html
You can also download the XML flags source by saving the following link: http://www.spec.org/cpu2006/flags/Intel-ic11.1-linux64-revE.20100316.xml

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

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