Fujitsu

PRIMERGY RX300 S6, Intel Xeon E5606, 2.13 GHz

CPU2006 license: 19
Test sponsor: Fujitsu
Tested by: Fujitsu

Test date: Dec-2010
Hardware Availability: Feb-2011
Software Availability: Nov-2010

CPU Name: Intel Xeon E5606
CPU Characteristics:
CPU MHz: 2133
FPU: Integrated
CPU(s) enabled: 8 cores, 2 chips, 4 cores/chip
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: 8 MB I+D on chip per chip
Other Cache: None
Memory: 48 GB (12 x 4 GB 2Rx4 PC3-10600R-9, ECC, running at 1067 MHz and CL7)
Disk Subsystem: 1 x SAS, 300 GB, 10000 RPM
Other Hardware: --

Software
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 12.0.0.082 Build 20101006
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

SPECint®_rate2006 = 164
SPECint_rate_base2006 = 154
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Results Table

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<tr>
<td>483.xalancbmk</td>
<td>8</td>
<td>351</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
Hugepages were not configured on the system

Platform Notes
BIOS configuration:
Data Reuse Optimization = Disable

General Notes
This result was measured on the PRIMERGY RX300 S6. The PRIMERGY RX300 S6 and the PRIMERGY TX300 S6 are electronically equivalent.

For information about Fujitsu please visit: http://www.fujitsu.com
Binaries were compiled on SLES 10 SP1 with Binutils 2.18.50.0.7.20080502
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Base Compiler Invocation

C benchmarks:

```bash
icc -m32 -B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT
```

C++ benchmarks:

```bash
icpc -m32 -B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT
```

Base Portability Flags

- 400.perlbench: -DSPEC_CPU_LINUX_IA32
- 462.libquantum: -DSPEC_CPU_LINUX
- 483.xalancbmk: -DSPEC_CPU_LINUX

Base Optimization Flags

C benchmarks:

```bash
-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch
```

C++ benchmarks:

```bash
-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs
-1/smartheap -1smartheap
```

Base Other Flags

C benchmarks:

```bash
403.gcc: -Dalloca=_alloca
```

Peak Compiler Invocation

C benchmarks (except as noted below):

```bash
icc -m64

403.gcc: icc -m32
- B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

429.mcf: icc -m32
445.gobmk: icc -m32
456.hmmer: icc -m64
- B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT
```

Continued on next page
Peak Compiler Invocation (Continued)

462.libquantum: icc  -m32
       -B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

464.h264ref: icc  -m32

C++ benchmarks (except as noted below):
icpc  -m32  -B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

471.omnetpp: icpc  -m32

Peak Portability Flags

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

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

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

429.mcf: -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  -auto-ilp32

445.gobmk: -xSSE4.2(pass 2)  -prof-gen(pass 1)  -prof-use(pass 2)
       -ansi-alias  -auto-ilp32

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

458.sjeng: -xSSE4.2(pass 2)  -prof-gen(pass 1)  -ipo(pass 2)
       -O3(pass 2)  -no-prec-div(pass 2)  -prof-use(pass 2)
       -unroll4  -auto-ilp32
SPEC CINT2006 Result

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Peak Optimization Flags (Continued)

462.libquantum: basepeak = yes
464.h264ref: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
     -O3(pass 2) -no-prec-div(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
     -L/smartheap -lsmartheap
473.astar: basepeak = yes
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
You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Intel-ic12.0-linux64-revA.20110303.00.xml

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

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