Dell Inc.

PowerEdge T640 (Intel Xeon Gold 5215, 2.50GHz)

CPU2017 License: 55
Test Sponsor: Dell Inc.
Tested by: Dell Inc.

Dell Inc.

PowerEdge T640 (Intel Xeon Gold 5215, 2.50GHz)

SPECrate2017_int_base = 119
SPECrate2017_int_peak = 123

Test Date: Jun-2019
Hardware Availability: Jun-2019
Software Availability: May-2019

<table>
<thead>
<tr>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECrate2017_int_base</td>
<td>119</td>
</tr>
<tr>
<td>SPECrate2017_int_peak</td>
<td>123</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Copies</th>
<th>SPECrate2017_int_base</th>
<th>SPECrate2017_int_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>500.perlbench_r</td>
<td>89.3</td>
<td></td>
</tr>
<tr>
<td>502.gcc_r</td>
<td>102</td>
<td></td>
</tr>
<tr>
<td>505.mcf_r</td>
<td>108</td>
<td></td>
</tr>
<tr>
<td>520.omnetpp_r</td>
<td>77.6</td>
<td></td>
</tr>
<tr>
<td>523.xalancbmk_r</td>
<td>138</td>
<td></td>
</tr>
<tr>
<td>525.x264_r</td>
<td>78.0</td>
<td></td>
</tr>
<tr>
<td>531.deepsjeng_r</td>
<td>96.6</td>
<td></td>
</tr>
<tr>
<td>541.leela_r</td>
<td>92.0</td>
<td></td>
</tr>
<tr>
<td>548.exchange2_r</td>
<td>77.7</td>
<td></td>
</tr>
<tr>
<td>557.xz_r</td>
<td>78.1</td>
<td></td>
</tr>
</tbody>
</table>

Hardware

CPU Name: Intel Xeon Gold 5215
Max MHz.: 3400
Nominal: 2500
Enabled: 20 cores, 2 chips, 2 threads/core
Orderable: 1.2 chips
Cache L1: 32 KB I + 32 KB D on chip per core
L2: 1 MB I+D on chip per core
L3: 13.75 MB I+D on chip per chip
Other: None
Memory: 384 GB (12 x 32 GB 2Rx4 PC4-2933Y-R, running at 2666)
Storage: 1 x 960 GB SATA SSD
Other: None

Software

OS: Ubuntu 18.04.2 LTS
kernel 4.15.0-45-generic
Compiler: C/C++: Version 19.0.4.227 of Intel
C/C++ Compiler Build 20190416 for Linux;
Fortran: Version 19.0.4.227 of Intel Fortran
Compiler Build 20190416 for Linux
Parallel: No
Firmware: Version 2.2.9 released May-2019
File System: ext4
System State: Run level 5 (multi-user)
Base Pointers: 64-bit
Peak Pointers: 32/64-bit
Other: jemalloc memory allocator V5.0.1
Dell Inc.

PowerEdge T640 (Intel Xeon Gold 5215, 2.50GHz)

SPECrate2017_int_base = 119
SPECrate2017_int_peak = 123

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>500.perlbench_r</td>
<td>40</td>
<td>713</td>
<td>89.3</td>
<td>713</td>
<td>89.4</td>
<td>621</td>
<td>103</td>
<td>524</td>
<td>108</td>
<td>523</td>
<td>108</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>502.gcc_r</td>
<td>40</td>
<td>586</td>
<td>96.6</td>
<td>586</td>
<td>96.7</td>
<td>409</td>
<td>158</td>
<td>410</td>
<td>158</td>
<td>409</td>
<td>158</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>505.mcf_r</td>
<td>40</td>
<td>410</td>
<td>157</td>
<td>409</td>
<td>158</td>
<td>40</td>
<td>108</td>
<td>410</td>
<td>158</td>
<td>409</td>
<td>158</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>520.omnetpp_r</td>
<td>40</td>
<td>676</td>
<td>77.6</td>
<td>676</td>
<td>77.7</td>
<td>40</td>
<td>77.9</td>
<td>674</td>
<td>77.9</td>
<td>674</td>
<td>77.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>523.xalancbmk_r</td>
<td>40</td>
<td>307</td>
<td>138</td>
<td>306</td>
<td>138</td>
<td>40</td>
<td>144</td>
<td>293</td>
<td>144</td>
<td>293</td>
<td>144</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>525.x264_r</td>
<td>40</td>
<td>300</td>
<td>233</td>
<td>300</td>
<td>233</td>
<td>40</td>
<td>233</td>
<td>288</td>
<td>233</td>
<td>288</td>
<td>233</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>531.deepsjeng_r</td>
<td>40</td>
<td>475</td>
<td>96.6</td>
<td>468</td>
<td>97.9</td>
<td>40</td>
<td>97.0</td>
<td>463</td>
<td>98.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>541.leela_r</td>
<td>40</td>
<td>720</td>
<td>92.0</td>
<td>715</td>
<td>92.6</td>
<td>40</td>
<td>91.2</td>
<td>727</td>
<td>91.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>548.exchange2_r</td>
<td>40</td>
<td>437</td>
<td>240</td>
<td>438</td>
<td>239</td>
<td>40</td>
<td>240</td>
<td>437</td>
<td>240</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>557.xz_r</td>
<td>40</td>
<td>552</td>
<td>78.3</td>
<td>554</td>
<td>78.0</td>
<td>40</td>
<td>78.1</td>
<td>552</td>
<td>78.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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"

General Notes

Environment variables set by runcpu before the start of the run:
LD_LIBRARY_PATH = "/home/cpu2017/lib/intel64:/home/cpu2017/lib/ia32:/home/cpu2017/je5.0.1-32"
Binaries compiled on a system with 1x Intel Core i9-799X CPU + 32GB RAM
memory using Redhat Enterprise Linux 7.5
Transparent Huge Pages enabled by default
Prior to runcpu invocation
Filesystem page cache synced and cleared with:
sync; echo 3> /proc/sys/vm/drop_caches
runcpu command invoked through numactl i.e.:
numactl --interleave=all runcpu <etc>
NA: The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown) is mitigated in the system as tested and documented.
Yes: The test sponsor attests, as of date of publication, that CVE-2017-5753 (Spectre variant 1) is mitigated in the system as tested and documented.
Yes: The test sponsor attests, as of date of publication, that CVE-2017-5715 (Spectre variant 2) is mitigated in the system as tested and documented.

(Continued on next page)
Dell Inc.  
PowerEdge T640 (Intel Xeon Gold 5215, 2.50GHz)  

SPECrate2017_int_base = 119
SPECrate2017_int_peak = 123

CPU2017 License: 55  
Test Sponsor: Dell Inc.  
Test Date: Jun-2019  
Tested by: Dell Inc.  
Software Availability: May-2019  
Hardware Availability: Jun-2019

General Notes (Continued)
jemalloc, a general purpose malloc implementation  
built with the RedHat Enterprise 7.5, and the system compiler gcc 4.8.5  

Platform Notes

BIOS settings:
ADDDC setting disabled
Virtualization Technology disabled
System Profile set to Custom
CPU Performance set to Maximum Performance
C States set to Autonomous
C1E disabled
Uncore Frequency set to Dynamic
Energy Efficiency Policy set to Performance
Memory Patrol Scrub disabled
Logical Processor enabled
CPU Interconnect Bus Link Power Management disabled
PCI ASPM Ll Link Power Management disabled
Sysinfo program /home/cpu2017/bin/sysinfo
Rev: r5974 of 2018-05-19 9bcde8f2999c33d61f64985e45859ea9
running on intel-sut Fri Jun 14 15:58:48 2019

SUT (System Under Test) info as seen by some common utilities.  
For more information on this section, see  
https://www.spec.org/cpu2017/Docs/config.html#sysinfo

From /proc/cpuinfo
  model name : Intel(R) Xeon(R) Gold 5215 CPU @ 2.50GHz
    2  "physical id"s (chips)
    40 "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 : 10
    siblings : 20
    physical 0: cores 0 1 2 3 4 8 9 10 11 12
    physical 1: cores 0 1 2 3 4 8 9 10 11 12

From lscpu:
  Architecture: x86_64
  CPU op-mode(s): 32-bit, 64-bit
  Byte Order: Little Endian
  CPU(s): 40
  On-line CPU(s) list: 0-39
  Thread(s) per core: 2
  Core(s) per socket: 10

(Continued on next page)
# SPEC CPU2017 Integer Rate Result

**Dell Inc.**

**PowerEdge T640 (Intel Xeon Gold 5215, 2.50GHz)**

**SPECrate2017_int_base** = 119  
**SPECrate2017_int_peak** = 123

---

### Platform Notes (Continued)

<table>
<thead>
<tr>
<th>Socket(s):</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMA node(s):</td>
<td>2</td>
</tr>
<tr>
<td>Vendor ID:</td>
<td>GenuineIntel</td>
</tr>
<tr>
<td>CPU family:</td>
<td>6</td>
</tr>
<tr>
<td>Model:</td>
<td>85</td>
</tr>
<tr>
<td>Model name:</td>
<td><code>Intel(R) Xeon(R) Gold 5215 CPU @ 2.50GHz</code></td>
</tr>
<tr>
<td>Stepping:</td>
<td>6</td>
</tr>
<tr>
<td>CPU MHz:</td>
<td>1000.169</td>
</tr>
<tr>
<td>CPU max MHz:</td>
<td>3400.0000</td>
</tr>
<tr>
<td>CPU min MHz:</td>
<td>1000.0000</td>
</tr>
<tr>
<td>BogoMIPS:</td>
<td>5000.00</td>
</tr>
<tr>
<td>Virtualization:</td>
<td>VT-x</td>
</tr>
<tr>
<td>L1d cache:</td>
<td>32K</td>
</tr>
<tr>
<td>L1i cache:</td>
<td>32K</td>
</tr>
<tr>
<td>L2 cache:</td>
<td>1024K</td>
</tr>
<tr>
<td>L3 cache:</td>
<td>14080K</td>
</tr>
<tr>
<td>NUMA node0 CPU(s):</td>
<td>0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38</td>
</tr>
<tr>
<td>NUMA node1 CPU(s):</td>
<td>1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39</td>
</tr>
<tr>
<td>Flags:</td>
<td><code>fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx pdpe1gb rdtscp lm constant_tsc art arch_perfmon pebs bts rep_good nopl xtopology nonstop_tsc cpuid aperfmperf pni pclmulqdq dtes64 monitor ds_cpl vmx smx est tm2 ssse3 sdbg fma cx16 xtpr pdcm pcid dca sse4_1 sse4_2 x2apic movbe popcnt tsc_deadline_timer aes xsave avx f16c rdrand lahf_lm abm 3nowprefetch cpuid_fault epb cat_l3 cdp_l3 invpcid_single intel_ppin ssbd mba ibrs ibpb stibp ibrs_enhanced tpr_shadow vmi flexpriority ept vpid ept_ad fsgsbase tsc_adjust bmi1 hle avx2 smep bmi2  erms invpcid rtm cqm mpx rdt_a avx512f avx512dq rdseed adx smap clflushopt clwb intel_pt avx512cd avx512bw avx512v1 xsaveopt xsaves xsavec xgetbv1 xsaves cqm_llc cqm_occup_llc cqm_mbb_total cqm_mbb_local dtherm ida arat pln pts pku ospke avx512_vnni md_clear flush_lld arch_capabilities</code></td>
</tr>
</tbody>
</table>

/proc/cpuinfo cache data  
cache size : 14080 KB

From numactl --hardware WARNING: a numactl 'node' might or might not correspond to a physical chip.  
available: 2 nodes (0-1)  
node 0 cpus: 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38  
node 0 size: 191914 MB  
node 0 free: 191213 MB  
node 1 cpus: 1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39  
node 1 size: 193507 MB  
node 1 free: 193186 MB  
node distances:  
node 0 1  
0: 10 21  
1: 21 10

(Continued on next page)
SPEC CPU2017 Integer Rate Result
Copyright 2017-2019 Standard Performance Evaluation Corporation

Dell Inc.
PowerEdge T640 (Intel Xeon Gold 5215, 2.50GHz)

SPECrerate2017_int_base = 119
SPECrerate2017_int_peak = 123

CPU2017 License: 55
Test Sponsor: Dell Inc.
Test Date: Jun-2019
Hardware Availability: Jun-2019
Tested by: Dell Inc.
Software Availability: May-2019

Platform Notes (Continued)

From /proc/meminfo
MemTotal: 394672020 kB
HugePages_Total: 0
Hugepagesize: 2048 kB

/usr/bin/lsb_release -d
Ubuntu 18.04.2 LTS

From /etc/*release* /etc/*version*
debian_version: buster/sid
os-release:
NAME="Ubuntu"
VERSION="18.04.2 LTS (Bionic Beaver)"
ID=ubuntu
ID_LIKE=debian
PRETTY_NAME="Ubuntu 18.04.2 LTS"
VERSION_ID="18.04"
HOME_URL="https://www.ubuntu.com/"
SUPPORT_URL="https://help.ubuntu.com/"

uname -a:
Linux intel-sut 5.0.20-050020-generic #201905311031 SMP Fri May 31 14:33:53 UTC 2019
x86_64 x86_64 x86_64 GNU/Linux

Kernel self-reported vulnerability status:
CVE-2017-5754 (Meltdown): Not affected
CVE-2017-5753 (Spectre variant 1): Mitigation: __user pointer sanitization
CVE-2017-5715 (Spectre variant 2): Mitigation: Enhanced IBRS, IBPB: conditional, RSB filling
run-level 5 Jun 14 15:25

SPEC is set to: /home/cpu2017
Filesystem Type Size Used Avail Use% Mounted on
/dev/nvme0n1p2 ext4 439G 35G 383G 9% /

Additional information from dmidecode follows. WARNING: Use caution when you interpret this section. The 'dmidecode' program reads system data which is "intended to allow hardware to be accurately determined", but the intent may not be met, as there are frequent changes to hardware, firmware, and the "DMTF SMBIOS" standard.
BIOS Dell Inc. 2.2.9 05/08/2019
Memory:
12x 00AD063200AD HMA84GR7CJR4N-WM 32 GB 2 rank 2933, configured at 2666
12x Not Specified Not Specified

(Continued on next page)
SPEC CPU2017 Integer Rate Result

Dell Inc.
PowerEdge T640 (Intel Xeon Gold 5215, 2.50GHz)

SPECrate2017_int_base = 119
SPECrate2017_int_peak = 123

CPU2017 License: 55
Test Sponsor: Dell Inc.
Tested by: Dell Inc.

Test Date: Jun-2019
Hardware Availability: Jun-2019
Software Availability: May-2019

Platform Notes (Continued)
(End of data from sysinfo program)

Compiler Version Notes

=============================================
CC  502.gcc_r(peak)
---------------------------------------------
Intel(R) C Intel(R) 64 Compiler for applications running on IA-32, Version
19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.
---------------------------------------------

=============================================
CC  500.perlbench_r(base) 502.gcc_r(base) 505.mcf_r(base, peak)
      525.x264_r(base, peak) 557.xz_r(base, peak)
---------------------------------------------
Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,
Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.
---------------------------------------------

=============================================
CC  500.perlbench_r(peak)
---------------------------------------------
Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,
Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.
---------------------------------------------

=============================================
CXXC 523.xalancbmk_r(peak)
---------------------------------------------
Intel(R) C++ Intel(R) 64 Compiler for applications running on IA-32, Version
19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.
---------------------------------------------

=============================================
CXXC 520.omnetpp_r(base, peak) 523.xalancbmk_r(base) 531.deepsjeng_r(base,
      peak) 541.leela_r(base, peak)
---------------------------------------------
Intel(R) C++ Intel(R) 64 Compiler for applications running on Intel(R) 64,
Version 19.0.4.227 Build 20190416
Copyright (C) 1985-2019 Intel Corporation. All rights reserved.
---------------------------------------------

(Continued on next page)
## Dell Inc.

**PowerEdge T640 (Intel Xeon Gold 5215, 2.50GHz)**

<table>
<thead>
<tr>
<th>SPECrate2017_int_base</th>
<th>SPECrate2017_int_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>119</td>
<td>123</td>
</tr>
</tbody>
</table>

### Compiler Version Notes (Continued)

<table>
<thead>
<tr>
<th>FC 548.exchange2_r(base, peak)</th>
</tr>
</thead>
</table>

Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R) 64, Version 19.0.4.227 Build 20190416

Copyright (C) 1985-2019 Intel Corporation. All rights reserved.

### Base Compiler Invocation

- **C benchmarks:**
  ```
  icc -m64 -std=c11
  ```

- **C++ benchmarks:**
  ```
  icpc -m64
  ```

- **Fortran benchmarks:**
  ```
  ifort -m64
  ```

### Base Portability Flags

- **500.perlbench_r:**
  `-DSPEC_LP64 -DSPEC_LINUX_X64`

- **502.gcc_r:**
  `-DSPEC_LP64`

- **505.mcf_r:**
  `-DSPEC_LP64`

- **520.omnetpp_r:**
  `-DSPEC_LP64`

- **523.xalancbmk_r:**
  `-DSPEC_LP64 -DSPEC_LINUX`

- **525.x264_r:**
  `-DSPEC_LP64`

- **531.deepsjeng_r:**
  `-DSPEC_LP64`

- **541.leela_r:**
  `-DSPEC_LP64`

- **548.exchange2_r:**
  `-DSPEC_LP64`

- **557.xz_r:**
  `-DSPEC_LP64`

### Base Optimization Flags

- **C benchmarks:**
  ```
  -Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div 
  -qopt-mem-layout-trans=4 
  -L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64 
  -lqkmalloc
  ```

(Continued on next page)
SPEC CPU2017 Integer Rate Result

Dell Inc.
PowerEdge T640 (Intel Xeon Gold 5215, 2.50GHz)

Copyright 2017-2019 Standard Performance Evaluation Corporation

SPECrate2017_int_base = 119
SPECrate2017_int_peak = 123

CPU2017 License: 55
Test Sponsor: Dell Inc.
Tested by: Dell Inc.

Test Date: Jun-2019
Hardware Availability: Jun-2019
Software Availability: May-2019

**Base Optimization Flags (Continued)**

C++ benchmarks:
- Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div
- -qopt-mem-layout-trans=4
- -L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
- -lqkmalloc

Fortran benchmarks:
- Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div
- -qopt-mem-layout-trans=4 -nostandard-realloc-lhs -align array32byte
- -L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
- -lqkmalloc

**Peak Compiler Invocation**

C benchmarks (except as noted below):
icc -m64 -std=c11


C++ benchmarks (except as noted below):
icpc -m64

523.xalancbmk_r: icpc -m32 -L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/ia32_lin

Fortran benchmarks:
ifort -m64

**Peak Portability Flags**

500.perlbench_r: -DSPEC_LP64 -DSPEC_LINUX_X64
502.gcc_r: -D_FILE_OFFSET_BITS=64
505.mcf_r: -DSPEC_LP64
520.omnetpp_r: -DSPEC_LP64
523.xalancbmk_r: -D_FILE_OFFSET_BITS=64 -DSPEC_LINUX
525.x264_r: -DSPEC_LP64
531.deepsjeng_r: -DSPEC_LP64
541.leela_r: -DSPEC_LP64
548.exchange2_r: -DSPEC_LP64
557.xz_r: -DSPEC_LP64
SPEC CPU2017 Integer Rate Result

Dell Inc.

PowerEdge T640 (Intel Xeon Gold 5215, 2.50GHz)

SPECrate2017_int_base = 119
SPECrate2017_int_peak = 123

CPU2017 License: 55
Test Sponsor: Dell Inc.
Tested by: Dell Inc.

Test Date: Jun-2019
Hardware Availability: Jun-2019
Software Availability: May-2019

Peak Optimization Flags

C benchmarks:

500.perlbench_r: -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -ipo
-xCORE-AVX512 -O3 -no-prec-div -qopt-mem-layout-trans=4
-fno-strict-overflow
-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
-lqkmalloc

502.gcc_r: -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -ipo
-xCORE-AVX512 -O3 -no-prec-div -qopt-mem-layout-trans=4
-L/usr/local/intel/5.0.1-32/lib -ljemalloc

505.mcf_r: -Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=4
-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
-lqkmalloc

525.x264_r: -Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=4 -fno-alias
-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
-lqkmalloc

557.xz_r: Same as 505.mcf_r

C++ benchmarks:

520.omnetpp_r: -Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=4
-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
-lqkmalloc

523.xalancbmk_r: -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -ipo
-xCORE-AVX512 -O3 -no-prec-div -qopt-mem-layout-trans=4
-L/usr/local/intel/5.0.1-32/lib -ljemalloc

531.deepsjeng_r: Same as 520.omnetpp_r

541.leela_r: Same as 520.omnetpp_r

Fortran benchmarks:

-Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=4 -nostandard-realloc-lhs -align array32byte
-L/usr/local/IntelCompiler19/compilers_and_libraries_2019.4.227/linux/compiler/lib/intel64
-lqkmalloc
## SPEC CPU2017 Integer Rate Result

### Dell Inc.

**PowerEdge T640 (Intel Xeon Gold 5215, 2.50GHz)**

<table>
<thead>
<tr>
<th>CPU2017 License</th>
<th>Test Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>55</td>
<td>Jun-2019</td>
</tr>
<tr>
<td>Dell Inc.</td>
<td></td>
</tr>
<tr>
<td>Dell Inc.</td>
<td>Hardware Availability: Jun-2019</td>
</tr>
<tr>
<td>Dell Inc.</td>
<td>Software Availability: May-2019</td>
</tr>
</tbody>
</table>

**SPECrade2017_int_base = 119**

**SPECrade2017_int_peak = 123**

The flags files that were used to format this result can be browsed at:


You can also download the XML flags sources by saving the following links:


---

SPEC is a registered trademark of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

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

Tested with SPEC CPU2017 v1.0.5 on 2019-06-14 11:58:47-0400.


Originally published on 2019-07-09.