### Hardware
- **CPU Name:** Intel Xeon Gold 5117
- **Max MHz.:** 2800
- **Nominal:** 2000
- **Enabled:** 56 cores, 4 chips
- **Orderable:** 2,4 chips
- **Cache L1:** 32 KB I + 32 KB D on chip per core
- **L2:** 1 MB I+D on chip per core
- **L3:** 19.25 MB I+D on chip per core
- **Other:** None
- **Memory:** 1536 GB (48 x 32 GB 2Rx4 PC4-2666V-R, running at 2400)
- **Storage:** 1 x 800 GB SAS SSD
- **Other:** None

### Software
- **OS:** SUSE Linux Enterprise Server 12 SP2 (x86_64)
- **Compiler:** C/C++: Version 18.0.0.128 of Intel C/C++
- **Parallel:** Yes
- **Firmware:** Lenovo BIOS Version IVE113W 1.12 released Feb-2018
- **System State:** Run level 3 (multi-user)
- **Base Pointers:** 64-bit
- **Peak Pointers:** 32/64-bit
- **Other:** Jemalloc: Jemalloc memory allocator library V5.0.1

---

**SPECspeed2017_int_base = 6.73**

**SPECspeed2017_int_peak = 6.92**
Lenovo Global Technology  
ThinkSystem SN850  
(2.00 GHz, Intel Xeon Gold 5117)  

**SPEC CPU2017 Integer Speed Result**  

**Copyright 2017-2018 Standard Performance Evaluation Corporation**  

**Lenovo Global Technology**  

---  

**SPECspeed2017_int_base** = 6.73  
**SPECspeed2017_int_peak** = 6.92  

---  

**Results Table**

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Threads</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Threads</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>600.perlbench_s</td>
<td>56</td>
<td>377</td>
<td>4.71</td>
<td>378</td>
<td>4.70</td>
<td>379</td>
<td>4.68</td>
<td>56</td>
<td>317</td>
<td>5.60</td>
<td>319</td>
<td>5.57</td>
</tr>
<tr>
<td>602.gcc_s</td>
<td>56</td>
<td>591</td>
<td>6.74</td>
<td>556</td>
<td>7.17</td>
<td>557</td>
<td>7.15</td>
<td>56</td>
<td>544</td>
<td>7.31</td>
<td>544</td>
<td>7.33</td>
</tr>
<tr>
<td>605.mcf_s</td>
<td>56</td>
<td>549</td>
<td>8.59</td>
<td>545</td>
<td>8.66</td>
<td>546</td>
<td>8.64</td>
<td>56</td>
<td>539</td>
<td>8.76</td>
<td>539</td>
<td>8.76</td>
</tr>
<tr>
<td>620.omnetpp_s</td>
<td>56</td>
<td>373</td>
<td>4.37</td>
<td>337</td>
<td>4.85</td>
<td>364</td>
<td>4.48</td>
<td>56</td>
<td>338</td>
<td>4.83</td>
<td>364</td>
<td>4.48</td>
</tr>
<tr>
<td>623.xalanchmk_s</td>
<td>56</td>
<td>197</td>
<td>7.19</td>
<td>195</td>
<td>7.27</td>
<td>198</td>
<td>7.15</td>
<td>56</td>
<td>187</td>
<td>7.58</td>
<td>186</td>
<td>7.61</td>
</tr>
<tr>
<td>625.x264_s</td>
<td>56</td>
<td>197</td>
<td>8.93</td>
<td>198</td>
<td>8.93</td>
<td>197</td>
<td>8.93</td>
<td>56</td>
<td>198</td>
<td>8.93</td>
<td>198</td>
<td>8.93</td>
</tr>
<tr>
<td>631.deepsjeng_s</td>
<td>56</td>
<td>376</td>
<td>3.81</td>
<td>372</td>
<td>3.85</td>
<td>372</td>
<td>3.85</td>
<td>56</td>
<td>375</td>
<td>3.82</td>
<td>374</td>
<td>3.83</td>
</tr>
<tr>
<td>641.leela_s</td>
<td>56</td>
<td>520</td>
<td>3.28</td>
<td>520</td>
<td>3.28</td>
<td>520</td>
<td>3.28</td>
<td>56</td>
<td>518</td>
<td>3.29</td>
<td>518</td>
<td>3.30</td>
</tr>
<tr>
<td>648.exchange2_s</td>
<td>56</td>
<td>292</td>
<td>10.1</td>
<td>291</td>
<td>10.1</td>
<td>291</td>
<td>10.1</td>
<td>56</td>
<td>293</td>
<td>10.0</td>
<td>291</td>
<td>10.1</td>
</tr>
<tr>
<td>657.xz_s</td>
<td>56</td>
<td>342</td>
<td>18.1</td>
<td>344</td>
<td>18.0</td>
<td>342</td>
<td>18.1</td>
<td>56</td>
<td>343</td>
<td>18.0</td>
<td>339</td>
<td>18.2</td>
</tr>
</tbody>
</table>

**SPECspeed2017_int_base** = 6.73  
**SPECspeed2017_int_peak** = 6.92

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

---

**Operating System Notes**

Environment variables set by runcpu before the start of the run:

LD_LIBRARY_PATH = "/home/cpu2017.1.0.2.ic18.0/lib/ia32:/home/cpu2017.1.0.2.ic18.0/lib/intel64"  
LD_LIBRARY_PATH = "$LD_LIBRARY_PATH:/home/cpu2017.1.0.2.ic18.0/je5.0.1-32:/home/cpu2017.1.0.2.ic18.0/je5.0.1-64"  
OMP_STACKSIZE = "192M"

Binaries compiled on a system with 1x Intel Core i7-4790 CPU + 32GB RAM memory using Redhat Enterprise Linux 7.4  
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  
jemalloc: configured and built at default for  
32bit (i686) and 64bit (x86_64) targets;  
jemalloc: built with the RedHat Enterprise 7.4,  
and the system compiler gcc 4.8.5;  
jemalloc: sources available from jemalloc.net or  
Yes: 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.

---

**General Notes**

Environment variables set by runcpu before the start of the run:
LD_LIBRARY_PATH = "/home/cpu2017.1.0.2.ic18.0/lib/ia32:/home/cpu2017.1.0.2.ic18.0/lib/intel64"  
LD_LIBRARY_PATH = "$LD_LIBRARY_PATH:/home/cpu2017.1.0.2.ic18.0/je5.0.1-32:/home/cpu2017.1.0.2.ic18.0/je5.0.1-64"  
OMP_STACKSIZE = "192M"

Binaries compiled on a system with 1x Intel Core i7-4790 CPU + 32GB RAM memory using Redhat Enterprise Linux 7.4  
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  
jemalloc: configured and built at default for  
32bit (i686) and 64bit (x86_64) targets;  
jemalloc: built with the RedHat Enterprise 7.4,  
and the system compiler gcc 4.8.5;  
jemalloc: sources available from jemalloc.net or  
Yes: 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.
Lenovo Global Technology
ThinkSystem SN850
(2.00 GHz, Intel Xeon Gold 5117)

**SPEC CPU2017 Integer Speed Result**

| CPU2017 License: | 9017 |
| Test Sponsor:    | Lenovo Global Technology |
| Tested by:       | Lenovo Global Technology |

**SPECspeed2017_int_base = 6.73**

**SPECspeed2017_int_peak = 6.92**

**Test Date:** Mar-2018

**Hardware Availability:** Aug-2017

**Software Availability:** Sep-2017

**Platform Notes**

BIOS configuration:
- Choose Operating Mode set to Maximum Performance
- Hyper-Threading set to Disable
- DCU Streamer Prefetcher set to Disable
- MONITOR/MWAIT set to Enable
- DCA set to Enable
- Stale AtoS set to Enable
- LLC dead line alloc set to Disable

Sysinfo program /home/cpu2017.1.0.2.ic18.0/bin/sysinfo
Rev: r5797 of 2017-06-14 96c45e4568ad54c135fd618bcc091c0f
running on SN850 Thu Mar 22 19:02:20 2018

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 5117 CPU @ 2.00GHz
- 4 "physical id"s (chips)
- 56 "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 : 14
  - siblings : 14
  - physical 0: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14
  - physical 1: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14
  - physical 2: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14
  - physical 3: cores 0 1 2 3 4 5 6 8 9 10 11 12 13 14

From lscpu:
- Architecture: x86_64
- CPU op-mode(s): 32-bit, 64-bit
- Byte Order: Little Endian
- CPU(s): 56
- On-line CPU(s) list: 0-55
- Thread(s) per core: 1
- Core(s) per socket: 14
- Socket(s): 4
- NUMA node(s): 4
- Vendor ID: GenuineIntel
- CPU family: 6
- Model: 85
- Model name: Intel(R) Xeon(R) Gold 5117 CPU @ 2.00GHz
- Stepping: 4
- CPU MHz: 1995.315
- BogoMIPS: 3990.63
- Virtualization: VT-x

(Continued on next page)
Lenovo Global Technology

ThinkSystem SN850
(2.00 GHz, Intel Xeon Gold 5117)

CPU2017 License: 9017
Test Sponsor: Lenovo Global Technology
Tested by: Lenovo Global Technology

SPEC CPU2017 Integer Speed Result

SPECspeed2017_int_base = 6.73
SPECspeed2017_int_peak = 6.92

Platform Notes (Continued)

L1d cache: 32K
L1i cache: 32K
L2 cache: 1024K
L3 cache: 19712K
NUMA node0 CPU(s): 0-13
NUMA node1 CPU(s): 14-27
NUMA node2 CPU(s): 28-41
NUMA node3 CPU(s): 42-55
Flags: 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
 aperfmperf eagerfpu 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 3dnowprefetch ida arat epb invpcid_single pln pts
dtherm intel_pt rsb_ctxsw spec_ctrl retpoline kaiser tpr_shadow vnumi flexpriority
 ept vpid fpgasbase tsc_adjust bmi1 hle avx2 smep bmi2 erms invpcid rtm cqm mpx
 avx512f avx512dq rdseed adx smap clflushopt clwb avx512cd avx512bw avx512vl xsaveopt
 xsavec xgetbv1 cqm_llc cqm_occup_llc

/proc/cpuinfo cache data

From numactl --hardware WARNING: a numactl 'node' might or might not correspond to a
physical chip.

available: 4 nodes (0-3)
node 0 cpus: 0 1 2 3 4 5 6 7 8 9 10 11 12 13
node 0 size: 386660 MB
node 0 free: 386313 MB
node 1 cpus: 14 15 16 17 18 19 20 21 22 23 24 25 26 27
node 1 size: 387057 MB
node 1 free: 386769 MB
node 2 cpus: 28 29 30 31 32 33 34 35 36 37 38 39 40 41
node 2 size: 387057 MB
node 2 free: 386838 MB
node 3 cpus: 42 43 44 45 46 47 48 49 50 51 52 53 54 55
node 3 size: 387054 MB
node 3 free: 386696 MB
node distances:
node 0 1 2 3
0: 10 21 21 31
1: 21 10 31 21
2: 21 31 10 21
3: 31 21 21 10

From /proc/meminfo

MemTotal: 1584976776 kB
 HugePages_Total: 0

(Continued on next page)
Lenovo Global Technology
ThinkSystem SN850
(2.00 GHz, Intel Xeon Gold 5117)

<table>
<thead>
<tr>
<th>SPECspeed2017_int_base</th>
<th>6.73</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECspeed2017_int_peak</td>
<td>6.92</td>
</tr>
</tbody>
</table>

CPU2017 License: 9017  
Test Sponsor: Lenovo Global Technology  
Hardware Availability: Aug-2017  
Test Date: Mar-2018  
Tested by: Lenovo Global Technology  
Software Availability: Sep-2017

Platform Notes (Continued)

Hugepagesize: 2048 kB

From /etc/*release*/etc/*version*
SuSE-release:
SUSE Linux Enterprise Server 12 (x86_64)
VERSION = 12
PATCHLEVEL = 2
# This file is deprecated and will be removed in a future service pack or release.
# Please check /etc/os-release for details about this release.

os-release:
NAME="SLES"
VERSION="12-SP2"
VERSION_ID="12.2"
PRETTY_NAME="SUSE Linux Enterprise Server 12 SP2"
ID="sles"
ANSI_COLOR="0;32"
CPE_NAME="cpe:/o:suse:sles:12:sp2"

uname -a:
Linux SN850 4.4.114-92.64-default #1 SMP Thu Feb 1 19:18:19 UTC 2018 (c6ce5db) x86_64
x86_64 x86_64 GNU/Linux

run-level 3 Mar 22 19:01

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 Lenovo -[IVEL113W-1.12]- 02/06/2018
Memory:
48x Samsung M393A4K40BB2-CTD 32 GB 2 rank 2666, configured at 2400

(End of data from sysinfo program)

Compiler Version Notes

==============================================================================
CC 600.perlibench_s(base) 602.gcc_s(base) 605.mcf_s(base) 625.x264_s(base, peak) 657.xz_s(base)
==============================================================================

icc (ICC) 18.0.0 20170811
Copyright (C) 1985-2017 Intel Corporation. All rights reserved.

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

**Lenovo Global Technology**  
ThinkSystem SN850  
(2.00 GHz, Intel Xeon Gold 5117)  

<table>
<thead>
<tr>
<th>SPECspeed2017_int_base</th>
<th>6.73</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECspeed2017_int_peak</td>
<td>6.92</td>
</tr>
</tbody>
</table>

**CPU2017 License:** 9017  
**Test Sponsor:** Lenovo Global Technology  
**Tested by:** Lenovo Global Technology  
**Test Date:** Mar-2018  
**Hardware Availability:** Aug-2017  
**Software Availability:** Sep-2017

## Compiler Version Notes (Continued)

<table>
<thead>
<tr>
<th>CC</th>
<th>600.perlbench_s(peak) 602.gcc_s(peak) 605.mcf_s(peak) 657.xz_s(peak)</th>
</tr>
</thead>
</table>
| icc (ICC) | 18.0.0 20170811  
Copyright (C) 1985-2017 Intel Corporation. All rights reserved. |

<table>
<thead>
<tr>
<th>CXXC</th>
<th>620.omnetpp_s(base) 623.xalancbmk_s(base) 631.deepsjeng_s(base) 641.leela_s(base)</th>
</tr>
</thead>
</table>
| icpc (ICC) | 18.0.0 20170811  
Copyright (C) 1985-2017 Intel Corporation. All rights reserved. |

<table>
<thead>
<tr>
<th>CXXC</th>
<th>620.omnetpp_s(peak) 623.xalancbmk_s(peak) 631.deepsjeng_s(peak) 641.leela_s(peak)</th>
</tr>
</thead>
</table>
| icpc (ICC) | 18.0.0 20170811  
Copyright (C) 1985-2017 Intel Corporation. All rights reserved. |

<table>
<thead>
<tr>
<th>FC</th>
<th>648.exchange2_s(base, peak)</th>
</tr>
</thead>
</table>
| ifort (IFORT) | 18.0.0 20170811  
Copyright (C) 1985-2017 Intel Corporation. All rights reserved. |

## Base Compiler Invocation

**C benchmarks:**  
icc

**C++ benchmarks:**  
icpc

**Fortran benchmarks:**  
ifort
## Lenovo Global Technology

**ThinkSystem SN850**  
(2.00 GHz, Intel Xeon Gold 5117)

<table>
<thead>
<tr>
<th>SPECspeed2017_int_base</th>
<th>6.73</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECspeed2017_int_peak</td>
<td>6.92</td>
</tr>
</tbody>
</table>

### Base Portability Flags

- 600.perlbench_s: \(-\text{DSPEC\_LP64} \ -\text{DSPEC\_LINUX\_X64}\)
- 602.gcc_s: \(-\text{DSPEC\_LP64}\)
- 605.mcf_s: \(-\text{DSPEC\_LP64}\)
- 620.omnetpp_s: \(-\text{DSPEC\_LP64}\)
- 623.xalancbmk_s: \(-\text{DSPEC\_LP64} \ -\text{DSPEC\_LINUX}\)
- 625.x264_s: \(-\text{DSPEC\_LP64}\)
- 631.deepsjeng_s: \(-\text{DSPEC\_LP64}\)
- 641.leela_s: \(-\text{DSPEC\_LP64}\)
- 648.exchange2_s: \(-\text{DSPEC\_LP64}\)
- 657.xz_s: \(-\text{DSPEC\_LP64}\)

### Base Optimization Flags

**C benchmarks:**

- \(-\text{Wl,-z,muldefs} \ -\text{xCORE-AVX512} \ -\text{ipo} \ -\text{O3} \ -\text{no-prec-div}\)
- \(-\text{qopt-mem-layout-trans=3} \ -\text{qopenmp} \ -\text{DSPEC\_OPENMP}\)
- \(-\text{L/usr/local/je5.0.1-64/lib} \ -\text{ljemalloc}\)

**C++ benchmarks:**

- \(-\text{Wl,-z,muldefs} \ -\text{xCORE-AVX512} \ -\text{ipo} \ -\text{O3} \ -\text{no-prec-div}\)
- \(-\text{qopt-mem-layout-trans=3} \ -\text{L/usr/local/je5.0.1-64/lib} \ -\text{ljemalloc}\)

**Fortran benchmarks:**

- \(-\text{Wl,-z,muldefs} \ -\text{xCORE-AVX512} \ -\text{ipo} \ -\text{O3} \ -\text{no-prec-div}\)
- \(-\text{qopt-mem-layout-trans=3} \ -\text{nostandard-realloc-lhs} \ -\text{align array32byte}\)
- \(-\text{L/usr/local/je5.0.1-64/lib} \ -\text{ljemalloc}\)

### Base Other Flags

**C benchmarks:**

- \(-\text{m64} \ -\text{std=c11}\)

**C++ benchmarks:**

- \(-\text{m64}\)

**Fortran benchmarks:**

- \(-\text{m64}\)
Lenovo Global Technology
ThinkSystem SN850
(2.00 GHz, Intel Xeon Gold 5117)

SPECspeed2017_int_base = 6.73
SPECspeed2017_int_peak = 6.92

CPU2017 License: 9017
Test Sponsor: Lenovo Global Technology
Tested by: Lenovo Global Technology

Test Date: Mar-2018
Hardware Availability: Aug-2017
Software Availability: Sep-2017

Peak Compiler Invocation

C benchmarks:
icc

C++ benchmarks:
icpc

Fortran benchmarks:
ifort

Peak Portability Flags

600.perlbench_s: -DSPEC_LP64 -DSPEC_LINUX_X64
602.gcc_s: -DSPEC_LP64
605.mcf_s: -DSPEC_LP64
620.omnetpp_s: -DSPEC_LP64
623.xalancbmk_s: -D_FILE_OFFSET_BITS=64 -DSPEC_LINUX
625.x264_s: -DSPEC_LP64
631.deepsjeng_s: -DSPEC_LP64
641.leela_s: -DSPEC_LP64
648.exchange2_s: -DSPEC_LP64
657.xz_s: -DSPEC_LP64

Peak Optimization Flags

C benchmarks:
600.perlbench_s: -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -O2
-xCORE-AVX512 -qopt-mem-layout-trans=3 -ipo -O3
-no-prec-div -DSPEC_SUPPRESS_OPENMP -qopenmp
-DSPEC_OPENMP -fno-strict-overflow
-L/usr/local/je5.0.1-64/lib -ljemalloc

602.gcc_s: -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -O2
-xCORE-AVX512 -qopt-mem-layout-trans=3 -ipo -O3
-no-prec-div -DSPEC_SUPPRESS_OPENMP -qopenmp
-DSPEC_OPENMP -L/usr/local/je5.0.1-64/lib -ljemalloc

605.mcf_s: -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -ipo
-xCORE-AVX512 -O3 -no-prec-div -qopt-mem-layout-trans=3
-DSPEC_SUPPRESS_OPENMP -qopenmp -DSPEC_OPENMP
-L/usr/local/je5.0.1-64/lib -ljemalloc

(Continued on next page)
Lenovo Global Technology
ThinkSystem SN850
(2.00 GHz, Intel Xeon Gold 5117)

SPECspeed2017_int_base = 6.73
SPECspeed2017_int_peak = 6.92

Peak Optimization Flags (Continued)

625.x264_s: -Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=3 -qopenmp -DSPEC_OPENMP
-L/usr/local/je5.0.1-64/lib -ljemalloc

657.xz_s: Same as 602.gcc_s

C++ benchmarks:

620.omnetpp_s: -Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -ipo
-xCORE-AVX512 -O3 -no-prec-div -qopt-mem-layout-trans=3
-DSPEC_SUPPRESS_OPENMP -qopenmp -DSPEC_OPENMP
-L/usr/local/je5.0.1-64/lib -ljemalloc

623.xalancbmk_s: -L/opt/intel/compilers_and_libraries_2018/linux/lib/ia32
-Wl,-z,muldefs -prof-gen(pass 1) -prof-use(pass 2) -ipo
-xCORE-AVX512 -O3 -no-prec-div -qopt-mem-layout-trans=3
-DSPEC_SUPPRESS_OPENMP -qopenmp -DSPEC_OPENMP
-L/usr/local/je5.0.1-32/lib -ljemalloc

631.deepsjeng_s: Same as 620.omnetpp_s

641.leela_s: Same as 620.omnetpp_s

Fortran benchmarks:

-Wl,-z,muldefs -xCORE-AVX512 -ipo -O3 -no-prec-div
-qopt-mem-layout-trans=3 -nostandard-realloc-lhs -align array32byte
-L/usr/local/je5.0.1-64/lib -ljemalloc

Peak Other Flags

C benchmarks:

-m64 -std=c11

C++ benchmarks (except as noted below):

-m64

623.xalancbmk_s: -m32

Fortran benchmarks:

-m64
## Lenovo Global Technology

**ThinkSystem SN850**  
(2.00 GHz, Intel Xeon Gold 5117)

<table>
<thead>
<tr>
<th>SPEC CPU2017 License</th>
<th>Lenovo Global Technology</th>
<th>Test Date: Mar-2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Sponsor:</td>
<td>Lenovo Global Technology</td>
<td>Hardware Availability: Aug-2017</td>
</tr>
<tr>
<td>Tested by:</td>
<td>Lenovo Global Technology</td>
<td>Software Availability: Sep-2017</td>
</tr>
</tbody>
</table>

**SPECspeed2017_int_base** = 6.73  
**SPECspeed2017_int_peak** = 6.92

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

- [http://www.spec.org/cpu2017/flags/Intel-ic18.0-official-linux64.html](http://www.spec.org/cpu2017/flags/Intel-ic18.0-official-linux64.html)
- [http://www.spec.org/cpu2017/flags/Lenovo-Platform-SPECcpu2017-Flags-V1.2-SKL-C.html](http://www.spec.org/cpu2017/flags/Lenovo-Platform-SPECcpu2017-Flags-V1.2-SKL-C.html)

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

- [http://www.spec.org/cpu2017/flags/Intel-ic18.0-official-linux64.xml](http://www.spec.org/cpu2017/flags/Intel-ic18.0-official-linux64.xml)
- [http://www.spec.org/cpu2017/flags/Lenovo-Platform-SPECcpu2017-Flags-V1.2-SKL-C.xml](http://www.spec.org/cpu2017/flags/Lenovo-Platform-SPECcpu2017-Flags-V1.2-SKL-C.xml)

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 v1.0.2 on 2018-03-22 07:02:19-0400.  