



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

Lenovo Global Technology

ThinkSystem SE350 V2
(2.10 GHz, Intel Xeon D-2733NT)

SPECspeed®2017_int_base = 10.6

SPECspeed®2017_int_peak = 10.7

CPU2017 License: 9017

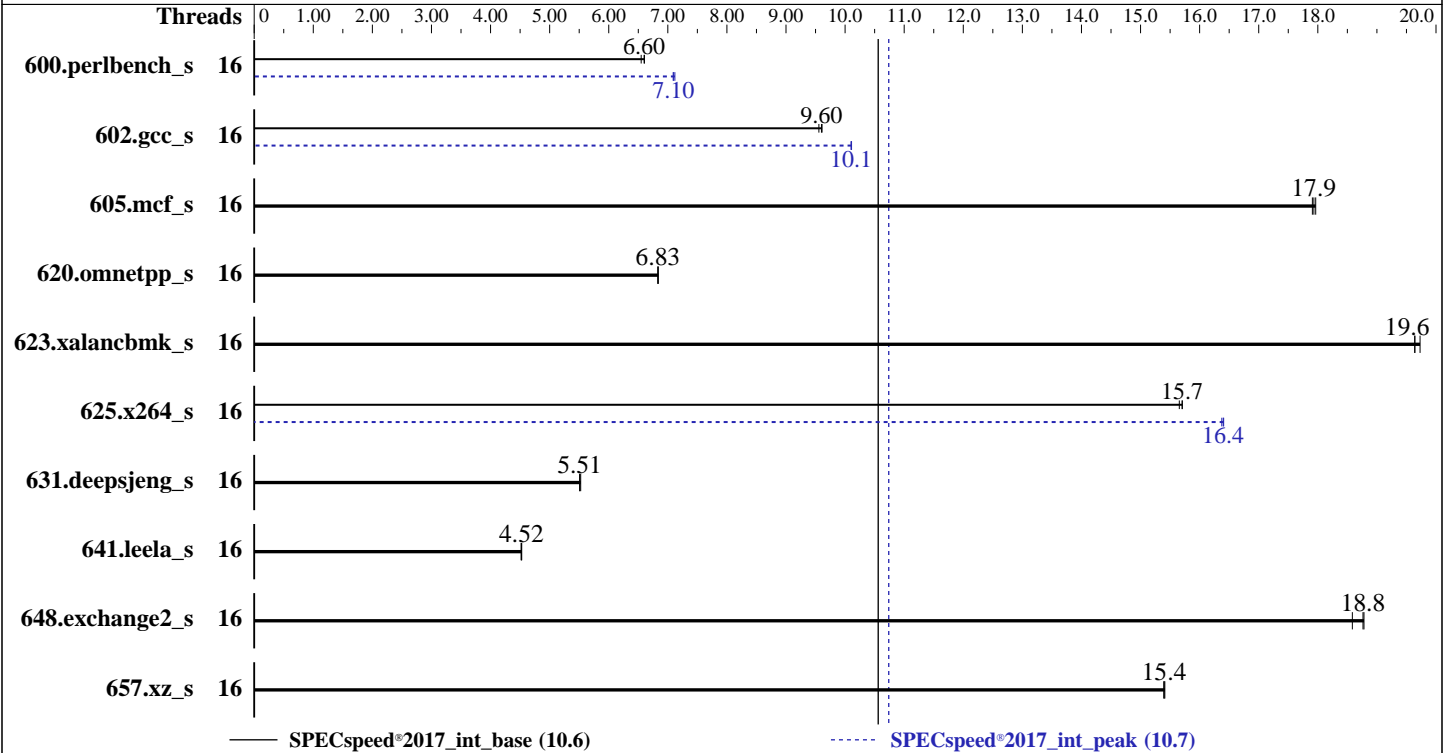
Test Sponsor: Lenovo Global Technology

Tested by: Lenovo Global Technology

Test Date: Jul-2023

Hardware Availability: Jul-2023

Software Availability: Dec-2022



Hardware

CPU Name: Intel Xeon D-2733NT
 Max MHz: 3200
 Nominal: 2100
 Enabled: 8 cores, 1 chip, 2 threads/core
 Orderable: 1 chip
 Cache L1: 32 KB I + 48 KB D on chip per core
 L2: 1.25 MB I+D on chip per core
 L3: 15 MB I+D on chip per chip
 Other: None
 Memory: 128 GB (4 x 32 GB 2Rx4 PC4-3200AA-R, running at 2666)
 Storage: 1 x 960 GB M.2 NVME SSD
 Other: None

Software

OS: SUSE Linux Enterprise Server 15 SP4 (x86_64)
 Kernel 5.14.21-150400.22-default
 Compiler: C/C++: Version 2023.0 of Intel oneAPI DPC++/C++ Compiler for Linux;
 Fortran: Version 2023.0 of Intel Fortran Compiler for Linux;
 Parallel: Yes
 Firmware: Lenovo BIOS Version IYE103W 1.10 released Jun-2023
 File System: xfs
 System State: Run level 3 (multi-user)
 Base Pointers: 64-bit
 Peak Pointers: 64-bit
 Other: jemalloc memory allocator V5.0.1
 Power Management: BIOS and OS set to prefer performance at the cost of additional power usage



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

Lenovo Global Technology

ThinkSystem SE350 V2
(2.10 GHz, Intel Xeon D-2733NT)

SPECspeed®2017_int_base = 10.6

SPECspeed®2017_int_peak = 10.7

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

Test Date: Jul-2023
Hardware Availability: Jul-2023
Software Availability: Dec-2022

Results Table

Benchmark	Base						Peak							
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
600.perlbench_s	16	271	6.55	269	6.60	<u>269</u>	<u>6.60</u>	16	250	7.09	249	7.12	<u>250</u>	<u>7.10</u>
602.gcc_s	16	417	9.56	414	9.61	<u>415</u>	<u>9.60</u>	16	394	10.1	<u>394</u>	<u>10.1</u>	394	10.1
605.mcf_s	16	264	17.9	263	18.0	<u>263</u>	<u>17.9</u>	16	264	17.9	263	18.0	<u>263</u>	<u>17.9</u>
620.omnetpp_s	16	<u>239</u>	<u>6.83</u>	239	6.83	239	6.84	16	<u>239</u>	<u>6.83</u>	239	6.83	239	6.84
623.xalancbmk_s	16	71.8	19.7	72.1	19.6	<u>72.1</u>	<u>19.6</u>	16	71.8	19.7	72.1	19.6	<u>72.1</u>	<u>19.6</u>
625.x264_s	16	113	15.7	112	15.7	<u>112</u>	<u>15.7</u>	16	108	16.4	108	16.4	<u>108</u>	<u>16.4</u>
631.deepsjeng_s	16	259	5.53	<u>260</u>	<u>5.51</u>	260	5.51	16	259	5.53	<u>260</u>	<u>5.51</u>	260	5.51
641.leela_s	16	378	4.52	377	4.53	<u>377</u>	<u>4.52</u>	16	378	4.52	377	4.53	<u>377</u>	<u>4.52</u>
648.exchange2_s	16	157	18.8	<u>157</u>	<u>18.8</u>	158	18.6	16	157	18.8	<u>157</u>	<u>18.8</u>	158	18.6
657.xz_s	16	<u>401</u>	<u>15.4</u>	402	15.4	401	15.4	16	<u>401</u>	<u>15.4</u>	402	15.4	401	15.4

SPECspeed®2017_int_base = **10.6**

SPECspeed®2017_int_peak = **10.7**

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

Compiler Notes

SPEC has ruled that the compiler used for this result was performing a compilation that specifically improves the performance of the 523.xalancbmk_r / 623.xalancbmk_s benchmarks using a priori knowledge of the SPEC code and dataset to perform a transformation that has narrow applicability.

In order to encourage optimizations that have wide applicability (see rule 1.4 https://www.spec.org/cpu2017/Docs/runrules.html#rule_1.4), SPEC will no longer publish results using this optimization.

This result is left in the SPEC results database for historical reference.

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

Environment Variables Notes

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

```
KMP_AFFINITY = "granularity=fine,scatter"
LD_LIBRARY_PATH = "/home/cpu2017-1.1.9-ic2023.0/lib/intel64:/home/cpu2017-1.1.9-ic2023.0/je5.0.1-64"
MALLOC_CONF = "retain:true"
OMP_STACKSIZE = "192M"
```

General Notes

Binaries compiled on a system with 2x Intel Xeon Platinum 8280M CPU + 384GB RAM memory using Redhat Enterprise Linux 8.0
Transparent Huge Pages enabled by default
Prior to runcpu invocation

(Continued on next page)



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

Lenovo Global Technology

SPECspeed®2017_int_base = 10.6

ThinkSystem SE350 V2
(2.10 GHz, Intel Xeon D-2733NT)

SPECspeed®2017_int_peak = 10.7

CPU2017 License: 9017

Test Date: Jul-2023

Test Sponsor: Lenovo Global Technology

Hardware Availability: Jul-2023

Tested by: Lenovo Global Technology

Software Availability: Dec-2022

General Notes (Continued)

Filesystem page cache synced and cleared with:

```
sync; echo 3> /proc/sys/vm/drop_caches
```

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.

jemalloc, a general purpose malloc implementation

built with the RedHat Enterprise 7.5, and the system compiler gcc 4.8.5

sources available from jemalloc.net or <https://github.com/jemalloc/jemalloc/releases>

Platform Notes

BIOS configuration:

Operating Mode set to Maximum Performance and then set it to Custom Mode

C-State set to Legacy

Sysinfo program /home/cpu2017-1.1.9-ic2023.0/bin/sysinfo

Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197

running on hakuba Mon Jul 24 17:02:29 2023

SUT (System Under Test) info as seen by some common utilities.

Table of contents

1. uname -a
2. w
3. Username
4. ulimit -a
5. sysinfo process ancestry
6. /proc/cpuinfo
7. lscpu
8. numactl --hardware
9. /proc/meminfo
10. who -r
11. Systemd service manager version: systemd 249 (249.11+suse.124.g2bc0b2c447)
12. Services, from systemctl list-unit-files
13. Linux kernel boot-time arguments, from /proc/cmdline
14. cpupower frequency-info
15. sysctl
16. /sys/kernel/mm/transparent_hugepage
17. /sys/kernel/mm/transparent_hugepage/khugepaged
18. OS release
19. Disk information
20. /sys/devices/virtual/dmi/id
21. dmidecode
22. BIOS

1. uname -a
Linux hakuba 5.14.21-150400.22-default #1 SMP PREEMPT_DYNAMIC Wed May 11 06:57:18 UTC 2022 (49db222) x86_64 x86_64 x86_64 GNU/Linux

2. w
17:02:29 up 3 days, 16:56, 1 user, load average: 0.00, 0.00, 0.00

(Continued on next page)



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

Lenovo Global Technology

SPECspeed®2017_int_base = 10.6

ThinkSystem SE350 V2
(2.10 GHz, Intel Xeon D-2733NT)

SPECspeed®2017_int_peak = 10.7

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

Test Date: Jul-2023
Hardware Availability: Jul-2023
Software Availability: Dec-2022

Platform Notes (Continued)

USER	TTY	FROM	LOGIN@	IDLE	JCPU	PCPU	WHAT
root	tty1	-	Fri00	7.00s	1.26s	0.00s	-bash

3. Username
From environment variable \$USER: root

```
4. ulimit -a
core file size          (blocks, -c) unlimited
data seg size          (kbytes, -d) unlimited
scheduling priority    (-e) 0
file size              (blocks, -f) unlimited
pending signals        (-i) 513548
max locked memory      (kbytes, -l) 64
max memory size        (kbytes, -m) unlimited
open files             (-n) 1024
pipe size              (512 bytes, -p) 8
POSIX message queues   (bytes, -q) 819200
real-time priority     (-r) 0
stack size             (kbytes, -s) unlimited
cpu time              (seconds, -t) unlimited
max user processes     (-u) 513548
virtual memory         (kbytes, -v) unlimited
file locks             (-x) unlimited
```

```
5. sysinfo process ancestry
/usr/lib/systemd/systemd --switched-root --system --deserialize 30
login -- root
-bash
-bash
runcpu --nobuild --action validate --define default-platform-flags -c
  ic2023.0-lin-core-avx512-speed-20221201.cfg --define cores=8 --tune base,peak -o all --define
  intspeedaffinity --define smt-on --define drop_caches intspeed
runcpu --nobuild --action validate --define default-platform-flags --configfile
  ic2023.0-lin-core-avx512-speed-20221201.cfg --define cores=8 --tune base,peak --output_format all --define
  intspeedaffinity --define smt-on --define drop_caches --nopower --runmode speed --tune base:peak --size
  refspeed intspeed --nopreenv --note-preenv --logfile
  $SPEC/tmp/CPU2017.024/templogs/preenv.intspeed.024.0.log --lognum 024.0 --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /home/cpu2017-1.1.9-ic2023.0
```

```
6. /proc/cpuinfo
model name      : Intel(R) Xeon(R) D-2733NT CPU @ 2.10GHz
vendor_id      : GenuineIntel
cpu family     : 6
model          : 108
stepping       : 1
microcode      : 0x1000211
bugs           : spectre_v1 spectre_v2 spec_store_bypass swaps
cpu cores      : 8
siblings       : 16
1 physical ids (chips)
16 processors (hardware threads)
physical id 0: core ids 0-7
physical id 0: apicids 0-15
Caution: /proc/cpuinfo data regarding chips, cores, and threads is not necessarily reliable, especially for
virtualized systems. Use the above data carefully.
```

(Continued on next page)



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

Lenovo Global Technology

ThinkSystem SE350 V2
(2.10 GHz, Intel Xeon D-2733NT)

SPECspeed®2017_int_base = 10.6

SPECspeed®2017_int_peak = 10.7

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

Test Date: Jul-2023
Hardware Availability: Jul-2023
Software Availability: Dec-2022

Platform Notes (Continued)

7. lscpu

From lscpu from util-linux 2.37.2:

```

Architecture:          x86_64
CPU op-mode(s):       32-bit, 64-bit
Address sizes:         46 bits physical, 57 bits virtual
Byte Order:           Little Endian
CPU(s):                16
On-line CPU(s) list:  0-15
Vendor ID:            GenuineIntel
Model name:           Intel(R) Xeon(R) D-2733NT CPU @ 2.10GHz
CPU family:           6
Model:                108
Thread(s) per core:   2
Core(s) per socket:   8
Socket(s):            1
Stepping:             1
BogoMIPS:             4200.00
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 cpuid aperfmperf tsc_known_freq 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 cpuid_fault epb cat_l3 invpcid_single ssbd ibrs
                    ibpb stibp ibrs_enhanced tpr_shadow vnmi flexpriority ept vpid ept_ad
                    fsgsbase tsc_adjust bmi1 hle avx2 smep bmi2 erms invpcid rtm cqm rdt_a
                    avx512f avx512dq rdseed adx smap avx512ifma clflushopt clwb intel_pt
                    avx512cd sha_ni avx512bw avx512vl xsaveopt xsavec xgetbv1 xsaves cqm_llc
                    cqm_occup_llc cqm_mbm_total cqm_mbm_local split_lock_detect wbnoinvd
                    dtherm ida arat pln pts avx512vbmi umip pku ospke avx512_vbmi2 gfni vaes
                    vpclmulqdq avx512_vnni avx512_bitalg tme avx512_vpopcntdq la57 rdpid fsrm
                    md_clear pconfig flush_l1d arch_capabilities
Virtualization:       VT-x
L1d cache:            384 KiB (8 instances)
L1i cache:            256 KiB (8 instances)
L2 cache:             10 MiB (8 instances)
L3 cache:             15 MiB (1 instance)
NUMA node(s):        1
NUMA node0 CPU(s):   0-15
Vulnerability Itlb multihit: Not affected
Vulnerability L1tf:  Not affected
Vulnerability MDS:   Not affected
Vulnerability Meltdown: Not affected
Vulnerability Spec store bypass: Mitigation; Speculative Store Bypass disabled via prctl and seccomp
Vulnerability Spectre v1: Mitigation; usercopy/swapgs barriers and __user pointer sanitization
Vulnerability Spectre v2: Mitigation; Enhanced IBRS, IBPB conditional, RSB filling
Vulnerability Srbds:  Not affected
Vulnerability Tsx async abort: Not affected

```

Virtualization:

```

L1d cache:            384 KiB (8 instances)
L1i cache:            256 KiB (8 instances)
L2 cache:             10 MiB (8 instances)
L3 cache:             15 MiB (1 instance)
NUMA node(s):        1
NUMA node0 CPU(s):   0-15
Vulnerability Itlb multihit: Not affected
Vulnerability L1tf:  Not affected
Vulnerability MDS:   Not affected
Vulnerability Meltdown: Not affected
Vulnerability Spec store bypass: Mitigation; Speculative Store Bypass disabled via prctl and seccomp
Vulnerability Spectre v1: Mitigation; usercopy/swapgs barriers and __user pointer sanitization
Vulnerability Spectre v2: Mitigation; Enhanced IBRS, IBPB conditional, RSB filling
Vulnerability Srbds:  Not affected
Vulnerability Tsx async abort: Not affected

```

From lscpu --cache:

NAME	ONE-SIZE	ALL-SIZE	WAYS	TYPE	LEVEL	SETS	PHY-LINE	COHERENCY-SIZE
L1d	48K	384K	12	Data	1	64	1	64
L1i	32K	256K	8	Instruction	1	64	1	64
L2	1.3M	10M	20	Unified	2	1024	1	64
L3	15M	15M	20	Unified	3	12288	1	64

(Continued on next page)



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

Lenovo Global Technology

ThinkSystem SE350 V2
(2.10 GHz, Intel Xeon D-2733NT)

SPECspeed®2017_int_base = 10.6

SPECspeed®2017_int_peak = 10.7

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

Test Date: Jul-2023
Hardware Availability: Jul-2023
Software Availability: Dec-2022

Platform Notes (Continued)

8. numactl --hardware

NOTE: a numactl 'node' might or might not correspond to a physical chip.

```
available: 1 nodes (0)
node 0 cpus: 0-15
node 0 size: 128410 MB
node 0 free: 122401 MB
node distances:
node 0
0: 10
```

9. /proc/meminfo

```
MemTotal: 131492792 kB
```

10. who -r

```
run-level 3 Jul 21 00:06
```

11. Systemd service manager version: systemd 249 (249.11+suse.124.g2bc0b2c447)

```
Default Target Status
multi-user running
```

12. Services, from systemctl list-unit-files

```
STATE UNIT FILES
enabled YaST2-Firstboot YaST2-Second-Stage apparmor auditd cron getty@ haveged irqbalance iscsi
issue-generator kbdsettings klog lvm2-monitor nscd nvme-fc-boot-connections postfix
purge-kernels rollback rsyslog smartd sshd wicked wickedd-auto4 wickedd-dhcp4
wickedd-dhcp6 wickedd-nanny
enabled-runtime systemd-remount-fs
disabled autofsd autofsd-initscripts blk-availability boot-sysctl ca-certificates chrony-wait
chronyd console-getty cups cups-browsed debug-shell ebttables exchange-bmc-os-info
firewalld gpm grub2-once haveged-switch-root ipmi ipmievd iscsi-init iscsid iscsiui
issue-add-ssh-keys kexec-load lunmask man-db-create multipathd nfs nfs-blkmap nmb
nvmf-autoconnect rdisc rpcbind rpmconfigcheck rsyncd serial-getty@ smartd_generate_opts
smb snmpd snmptrapd systemd-boot-check-no-failures systemd-network-generator
systemd-sysext systemd-time-wait-sync systemd-timesyncd
generated ntp_sync
indirect wickedd
```

13. Linux kernel boot-time arguments, from /proc/cmdline

```
BOOT_IMAGE=/boot/vmlinuz-5.14.21-150400.22-default
root=UUID=6c28020f-56d1-44c8-b74a-a550f9d3fba9
splash=silent
mitigations=auto
quiet
security=apparmor
```

14. cpupower frequency-info

```
analyzing CPU 0:
Unable to determine current policy
boost state support:
Supported: yes
Active: yes
```

15. sysctl

(Continued on next page)



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

Lenovo Global Technology

ThinkSystem SE350 V2
(2.10 GHz, Intel Xeon D-2733NT)

SPECspeed®2017_int_base = 10.6

SPECspeed®2017_int_peak = 10.7

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

Test Date: Jul-2023
Hardware Availability: Jul-2023
Software Availability: Dec-2022

Platform Notes (Continued)

```

kernel.numa_balancing          0
kernel.randomize_va_space     2
vm.compaction_proactiveness    20
vm.dirty_background_bytes      0
vm.dirty_background_ratio     10
vm.dirty_bytes                 0
vm.dirty_expire_centisecs     3000
vm.dirty_ratio                 3
vm.dirty_writeback_centisecs   500
vm.dirtytime_expire_seconds   43200
vm.extfrag_threshold           500
vm.min_unmapped_ratio         1
vm.nr_hugepages                0
vm.nr_hugepages_mempolicy     0
vm.nr_overcommit_hugepages    0
vm.swappiness                   60
vm.watermark_boost_factor     15000
vm.watermark_scale_factor     10
vm.zone_reclaim_mode          0

```

```

-----
16. /sys/kernel/mm/transparent_hugepage
defrag          always defer defer+madvice [madvice] never
enabled         [always] madvice never
hpage_pmd_size 2097152
shmem_enabled   always within_size advise [never] deny force

```

```

-----
17. /sys/kernel/mm/transparent_hugepage/khugepaged
alloc_sleep_millisecs  60000
defrag                  1
max_ptes_none          511
max_ptes_shared        256
max_ptes_swap          64
pages_to_scan          4096
scan_sleep_millisecs   10000

```

```

-----
18. OS release
From /etc/*-release /etc/*-version
os-release SUSE Linux Enterprise Server 15 SP4

```

```

-----
19. Disk information
SPEC is set to: /home/cpu2017-1.1.9-ic2023.0
Filesystem  Type  Size  Used Avail Use% Mounted on
/dev/nvme0n1p2 xfs   894G  25G  869G  3% /

```

```

-----
20. /sys/devices/virtual/dmi/id
Vendor:      Lenovo
Product:     ThinkEdge SE350 V2 CPU Planar
Product Family: ThinkSystem
Serial:      1234567890

```

```

-----
21. dmidecode
Additional information from dmidecode 3.2 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

```

(Continued on next page)



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

Lenovo Global Technology

ThinkSystem SE350 V2
(2.10 GHz, Intel Xeon D-2733NT)

SPECspeed®2017_int_base = 10.6

SPECspeed®2017_int_peak = 10.7

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

Test Date: Jul-2023
Hardware Availability: Jul-2023
Software Availability: Dec-2022

Platform Notes (Continued)

"DMTF SMBIOS" standard.

Memory:

4x Samsung M393A4K40DB3-CWE 32 GB 2 rank 3200, configured at 2666

22. BIOS

(This section combines info from /sys/devices and dmidecode.)

BIOS Vendor: Lenovo
BIOS Version: IYE103W-1.10
BIOS Date: 06/15/2023
BIOS Revision: 1.10
Firmware Revision: 1.10

Compiler Version Notes

C | 600.perlbench_s(base, peak) 602.gcc_s(base, peak) 605.mcf_s(base, peak) 625.x264_s(base, peak)
| 657.xz_s(base, peak)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2023.0.0 Build 20221201
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.

C++ | 620.omnetpp_s(base, peak) 623.xalancbmk_s(base, peak) 631.deepsjeng_s(base, peak)
| 641.leela_s(base, peak)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2023.0.0 Build 20221201
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.

Fortran | 648.exchange2_s(base, peak)

Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2023.0.0 Build 20221201
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.

Base Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Fortran benchmarks:

ifx



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

Lenovo Global Technology

ThinkSystem SE350 V2
(2.10 GHz, Intel Xeon D-2733NT)

SPECspeed®2017_int_base = 10.6

SPECspeed®2017_int_peak = 10.7

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

Test Date: Jul-2023
Hardware Availability: Jul-2023
Software Availability: Dec-2022

Base 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: -DSPEC_LP64 -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
```

Base Optimization Flags

C benchmarks:

```
-m64 -std=c11 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -fiopenmp
-DSPEC_OPENMP -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

C++ benchmarks:

```
-m64 -std=c++14 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

Fortran benchmarks:

```
-m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-nostandard-realloc-lhs -align array32byte
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

Peak Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Fortran benchmarks:

ifx



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

Lenovo Global Technology

SPECspeed®2017_int_base = 10.6

ThinkSystem SE350 V2
(2.10 GHz, Intel Xeon D-2733NT)

SPECspeed®2017_int_peak = 10.7

CPU2017 License: 9017

Test Sponsor: Lenovo Global Technology

Tested by: Lenovo Global Technology

Test Date: Jul-2023

Hardware Availability: Jul-2023

Software Availability: Dec-2022

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:

```
600.perlbench_s: -m64 -std=c11 -Wl,-z,muldefs -fprofile-generate(pass 1)
-fprofile-use=default.profddata(pass 2) -xCORE-AVX2(pass 1)
-flto -Ofast(pass 1) -xCORE-AVX512 -O3 -ffast-math
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-fiopenmp -DSPEC_OPENMP -fno-strict-overflow
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

```
602.gcc_s: -m64 -std=c11 -Wl,-z,muldefs -fprofile-generate(pass 1)
-fprofile-use=default.profddata(pass 2) -xCORE-AVX2(pass 1)
-flto -Ofast(pass 1) -xCORE-AVX512 -O3 -ffast-math
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-fiopenmp -DSPEC_OPENMP -L/usr/local/jemalloc64-5.0.1/lib
-ljemalloc
```

605.mcf_s: basepeak = yes

```
625.x264_s: -m64 -std=c11 -Wl,-z,muldefs -xCORE-AVX512 -O3
-ffast-math -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -fiopenmp -DSPEC_OPENMP
-fno-alias -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

657.xz_s: basepeak = yes

C++ benchmarks:

620.omnetpp_s: basepeak = yes

623.xalancbmk_s: basepeak = yes

631.deepsjeng_s: basepeak = yes

641.leela_s: basepeak = yes

Fortran benchmarks:

648.exchange2_s: basepeak = yes



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

Lenovo Global Technology

ThinkSystem SE350 V2
(2.10 GHz, Intel Xeon D-2733NT)

SPECspeed®2017_int_base = 10.6

SPECspeed®2017_int_peak = 10.7

CPU2017 License: 9017

Test Sponsor: Lenovo Global Technology

Tested by: Lenovo Global Technology

Test Date: Jul-2023

Hardware Availability: Jul-2023

Software Availability: Dec-2022

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

<http://www.spec.org/cpu2017/flags/Lenovo-Platform-SPECcpu2017-Flags-V1.2-Eaglestream-W.html>

<http://www.spec.org/cpu2017/flags/Intel-ic2023-official-linux64.html>

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

<http://www.spec.org/cpu2017/flags/Lenovo-Platform-SPECcpu2017-Flags-V1.2-Eaglestream-W.xml>

<http://www.spec.org/cpu2017/flags/Intel-ic2023-official-linux64.xml>

SPEC CPU and SPECspeed are registered trademarks 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 CPU®2017 v1.1.9 on 2023-07-24 05:02:28-0400.

Report generated on 2024-01-29 18:02:23 by CPU2017 PDF formatter v6716.

Originally published on 2023-08-15.