



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

## Hewlett Packard Enterprise

(Test Sponsor: HPE)

### ProLiant DL380 Gen11

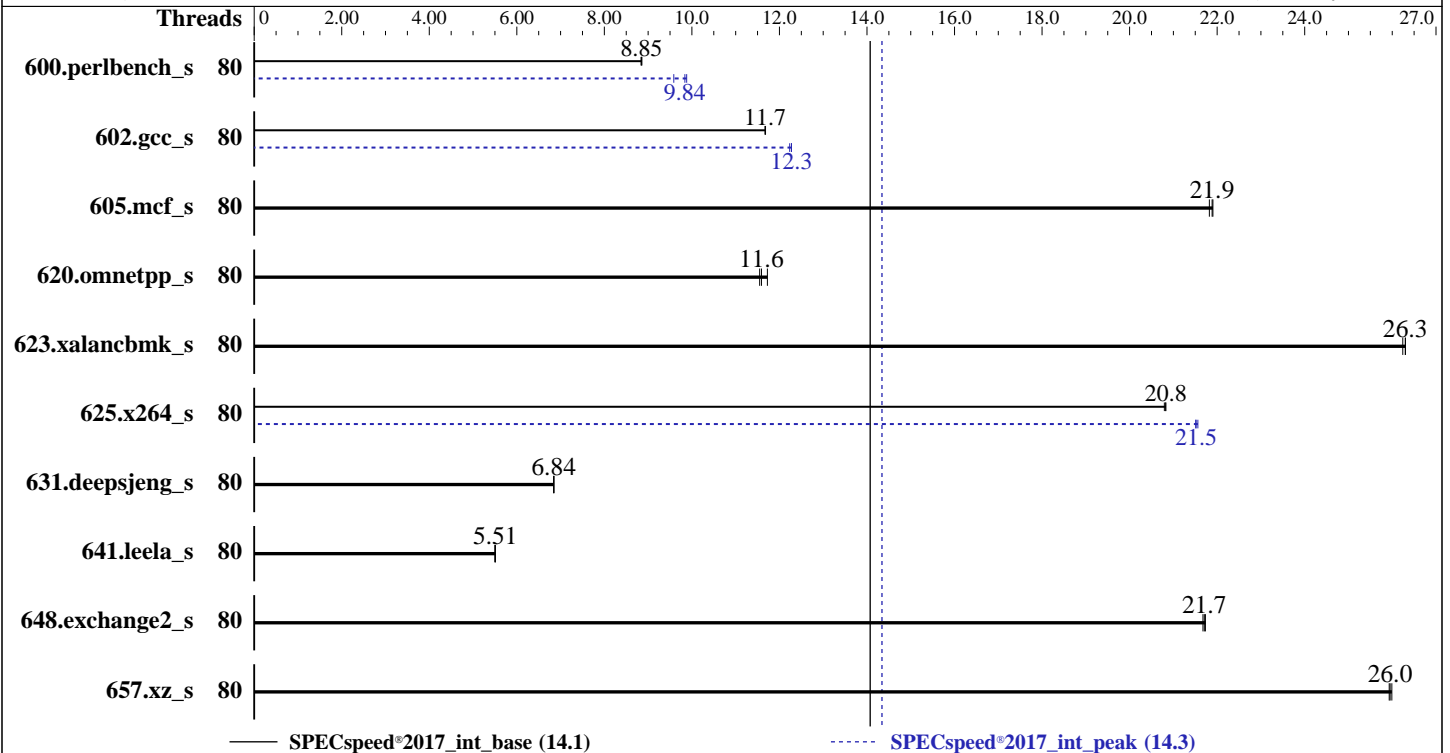
(2.00 GHz, Intel Xeon Platinum 8460Y+)

SPECspeed®2017\_int\_base = 14.1

SPECspeed®2017\_int\_peak = 14.3

CPU2017 License: 3  
Test Sponsor: HPE  
Tested by: HPE

Test Date: Feb-2023  
Hardware Availability: Jan-2023  
Software Availability: May-2022



### Hardware

CPU Name: Intel Xeon Platinum 8460Y+  
Max MHz: 3700  
Nominal: 2000  
Enabled: 80 cores, 2 chips  
Orderable: 1, 2 chip(s)  
Cache L1: 32 KB I + 48 KB D on chip per core  
L2: 2 MB I+D on chip per core  
L3: 105 MB I+D on chip per chip  
Other: None  
Memory: 1 TB (16 x 64 GB 2Rx4 PC5-4800B-R)  
Storage: 1 x 400 GB SATA SSD  
Other: None

### Software

OS: Red Hat Enterprise Linux release 9.0 (Plow)  
Kernel 5.14.0-70.13.1.el9\_0.x86\_64  
Compiler: C/C++: Version 2022.1 of Intel oneAPI DPC++/C++ Compiler for Linux;  
Fortran: Version 2022.1 of Intel Fortran Compiler for Linux  
Parallel: Yes  
Firmware: HPE BIOS Version v1.22 01/18/2023 released Jan-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

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

**ProLiant DL380 Gen11**

(2.00 GHz, Intel Xeon Platinum 8460Y+)

SPECspeed®2017\_int\_base = 14.1

SPECspeed®2017\_int\_peak = 14.3

**CPU2017 License:** 3  
**Test Sponsor:** HPE  
**Tested by:** HPE

**Test Date:** Feb-2023  
**Hardware Availability:** Jan-2023  
**Software Availability:** May-2022

## Results Table

Benchmark	Base						Peak							
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
600.perlbench_s	80	201	8.84	<b><u>201</u></b>	<b><u>8.85</u></b>	200	8.86	80	185	9.59	180	9.88	<b><u>180</u></b>	<b><u>9.84</u></b>
602.gcc_s	80	341	11.7	341	11.7	<b><u>341</u></b>	<b><u>11.7</u></b>	80	325	12.2	324	12.3	<b><u>324</u></b>	<b><u>12.3</u></b>
605.mcf_s	80	<b><u>216</u></b>	<b><u>21.9</u></b>	216	21.9	216	21.8	80	<b><u>216</u></b>	<b><u>21.9</u></b>	216	21.9	216	21.8
620.omnetpp_s	80	139	11.7	141	11.5	<b><u>141</u></b>	<b><u>11.6</u></b>	80	139	11.7	141	11.5	<b><u>141</u></b>	<b><u>11.6</u></b>
623.xalanbmk_s	80	<b><u>53.9</u></b>	<b><u>26.3</u></b>	54.0	26.2	53.9	26.3	80	<b><u>53.9</u></b>	<b><u>26.3</u></b>	54.0	26.2	53.9	26.3
625.x264_s	80	<b><u>84.7</u></b>	<b><u>20.8</u></b>	84.8	20.8	84.7	20.8	80	<b><u>82.0</u></b>	<b><u>21.5</u></b>	81.8	21.6	82.0	21.5
631.deepsjeng_s	80	209	6.85	209	6.84	<b><u>209</u></b>	<b><u>6.84</u></b>	80	209	6.85	209	6.84	<b><u>209</u></b>	<b><u>6.84</u></b>
641.leela_s	80	<b><u>310</u></b>	<b><u>5.51</u></b>	310	5.51	310	5.50	80	<b><u>310</u></b>	<b><u>5.51</u></b>	310	5.51	310	5.50
648.exchange2_s	80	136	21.7	<b><u>135</u></b>	<b><u>21.7</u></b>	135	21.7	80	136	21.7	<b><u>135</u></b>	<b><u>21.7</u></b>	135	21.7
657.xz_s	80	<b><u>238</u></b>	<b><u>26.0</u></b>	238	25.9	238	26.0	80	<b><u>238</u></b>	<b><u>26.0</u></b>	238	25.9	238	26.0

SPECspeed®2017\_int\_base = **14.1**

SPECspeed®2017\_int\_peak = **14.3**

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.xalanbmk\_r / 623.xalanbmk\_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](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.

## 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"
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>
```



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

**ProLiant DL380 Gen11**

(2.00 GHz, Intel Xeon Platinum 8460Y+)

SPECspeed®2017\_int\_base = 14.1

SPECspeed®2017\_int\_peak = 14.3

**CPU2017 License:** 3

**Test Sponsor:** HPE

**Tested by:** HPE

**Test Date:** Feb-2023

**Hardware Availability:** Jan-2023

**Software Availability:** May-2022

## Environment Variables Notes

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

KMP\_AFFINITY = "granularity=fine,scatter"

LD\_LIBRARY\_PATH = "/home/cpu2017\_19/lib/intel64:/home/cpu2017\_19/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 Red Hat Enterprise Linux 8.4

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

The system ROM used for this result contains Intel microcode version 0x2b000161 for the Intel Xeon Platinum 8460Y+ processor.

BIOS Configuration:

Workload Profile set to General Peak Frequency Compute

Thermal Configuration set to Maximum Cooling

Intel Hyper-Threading set to Disabled

Memory Patrol Scrubbing set to Disabled

Last Level Cache (LLC) Prefetch set to Enabled

Last Level Cache (LLC) Dead Line Allocation set to Disabled

Enhanced Processor Performance Profile set to Aggressive

Dead Block Predictor set to Enabled

Sub-NUMA Clustering set to Enabled SNC2(2-clusters)

Workload Profile set to Custom

Adjacent Sector Prefetch set to Disabled

Minimum Processor Idle Power Package C-State set to No Package State

Sysinfo program /home/cpu2017\_19/bin/sysinfo

Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197

running on localhost.localdomain Wed Feb 22 00:38:11 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

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

**ProLiant DL380 Gen11**

(2.00 GHz, Intel Xeon Platinum 8460Y+)

SPECspeed®2017\_int\_base = 14.1

SPECspeed®2017\_int\_peak = 14.3

**CPU2017 License:** 3

**Test Sponsor:** HPE

**Tested by:** HPE

**Test Date:** Feb-2023

**Hardware Availability:** Jan-2023

**Software Availability:** May-2022

## Platform Notes (Continued)

- 11. Systemd service manager version: systemd 250 (250-6.e19\_0)
- 12. Services, from systemctl list-unit-files
- 13. Linux kernel boot-time arguments, from /proc/cmdline
- 14. cpupower frequency-info
- 15. tuned-adm active
- 16. sysctl
- 17. /sys/kernel/mm/transparent\_hugepage
- 18. /sys/kernel/mm/transparent\_hugepage/khugepaged
- 19. OS release
- 20. Disk information
- 21. /sys/devices/virtual/dmi/id
- 22. dmidecode
- 23. BIOS

```
-----
1. uname -a
Linux localhost.localdomain 5.14.0-70.13.1.e19_0.x86_64 #1 SMP PREEMPT Thu Apr 14 12:42:38 EDT 2022 x86_64
x86_64 x86_64 GNU/Linux
-----
```

```
-----
2. w
00:38:11 up 0 min, 0 users, load average: 0.71, 0.27, 0.09
USER      TTY      LOGIN@  IDLE   JCPU   PCPU   WHAT
-----
```

```
-----
3. Username
From environment variable $USER: root
-----
```

```
-----
4. ulimit -a
real-time non-blocking time (microseconds, -R) unlimited
core file size (blocks, -c) 0
data seg size (kbytes, -d) unlimited
scheduling priority (-e) 0
file size (blocks, -f) unlimited
pending signals (-i) 4127201
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) 4127201
virtual memory (kbytes, -v) unlimited
file locks (-x) unlimited
-----
```

```
-----
5. sysinfo process ancestry
/usr/lib/systemd/systemd --switched-root --system --deserialize 18
sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups
sshd: root [priv]
sshd: root@notty
bash -c cd $SPEC/ && $SPEC/intspeed.sh
runcpu --nobuild --action validate --define default-platform-flags -c
ic2022.1-lin-core-avx512-speed-20220316.cfg --define cores=80 --tune base,peak -o all --define
intspeedaffinity --define drop_caches intspeed
runcpu --nobuild --action validate --define default-platform-flags --configfile
-----
```

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

**ProLiant DL380 Gen11**

(2.00 GHz, Intel Xeon Platinum 8460Y+)

**SPECspeed®2017\_int\_base = 14.1**

**SPECspeed®2017\_int\_peak = 14.3**

**CPU2017 License:** 3  
**Test Sponsor:** HPE  
**Tested by:** HPE

**Test Date:** Feb-2023  
**Hardware Availability:** Jan-2023  
**Software Availability:** May-2022

## Platform Notes (Continued)

```
ic2022.1-lin-core-avx512-speed-20220316.cfg --define cores=80 --tune base,peak --output_format all
--define intspeedaffinity --define drop_caches --nopower --runmode speed --tune base:peak --size refspeed
intspeed --nopreenv --note-preenv --logfile $SPEC/tmp/CPU2017.001/templogs/preenv.intspeed.001.0.log
--lognum 001.0 --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /home/cpu2017_19
```

### 6. /proc/cpuinfo

```
model name      : Intel(R) Xeon(R) Platinum 8460Y+
vendor_id      : GenuineIntel
cpu family     : 6
model          : 143
stepping       : 6
microcode      : 0x2b000161
bugs           : spectre_v1 spectre_v2 spec_store_bypass swapgs
cpu cores      : 40
siblings       : 40
2 physical ids (chips)
80 processors (hardware threads)
physical id 0: core ids 0-39
physical id 1: core ids 0-39
physical id 0: apicids
0,2,4,6,8,10,12,14,16,18,20,22,24,26,28,30,32,34,36,38,40,42,44,46,48,50,52,54,56,58,60,62,64,66,68,70,72
,74,76,78
physical id 1: apicids
128,130,132,134,136,138,140,142,144,146,148,150,152,154,156,158,160,162,164,166,168,170,172,174,176,178,1
80,182,184,186,188,190,192,194,196,198,200,202,204,206
```

Caution: /proc/cpuinfo data regarding chips, cores, and threads is not necessarily reliable, especially for virtualized systems. Use the above data carefully.

### 7. lscpu

From lscpu from util-linux 2.37.4:

```
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): 80
On-line CPU(s) list: 0-79
Vendor ID: GenuineIntel
BIOS Vendor ID: Intel(R) Corporation
Model name: Intel(R) Xeon(R) Platinum 8460Y+
BIOS Model name: Intel(R) Xeon(R) Platinum 8460Y+
CPU family: 6
Model: 143
Thread(s) per core: 1
Core(s) per socket: 40
Socket(s): 2
Stepping: 6
BogoMIPS: 4000.00
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 cat_l2 cdp_l3
invpcid_single cdp_l2 ssbd mba ibrs ibpb stibp ibrs_enhanced tpr_shadow
```

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

**ProLiant DL380 Gen11**

(2.00 GHz, Intel Xeon Platinum 8460Y+)

SPECspeed®2017\_int\_base = 14.1

SPECspeed®2017\_int\_peak = 14.3

**CPU2017 License:** 3  
**Test Sponsor:** HPE  
**Tested by:** HPE

**Test Date:** Feb-2023  
**Hardware Availability:** Jan-2023  
**Software Availability:** May-2022

## Platform Notes (Continued)

vmmi flexpriority ept vpid ept\_ad fsgsbase tsc\_adjust bmi1 avx2 smep bmi2  
erms invpcid 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 avx\_vnni avx512\_bf16 wbnoinvd dtherm ida arat pln pts  
avx512vbmi umip pku ospke waitpkg avx512\_vbmi2 gfni vaes vpclmulqdq  
avx512\_vnni avx512\_bitalg tme avx512\_vpopcntdq la57 rdpid bus\_lock\_detect  
cldemote movdiri movdir64b enqcmd fsrm md\_clear serialize tsxldtrk pconfig  
arch\_lbr avx512\_fp16 amx\_tile flush\_lld arch\_capabilities

### Virtualization:

L1d cache: 3.8 MiB (80 instances)  
L1i cache: 2.5 MiB (80 instances)  
L2 cache: 160 MiB (80 instances)  
L3 cache: 210 MiB (2 instances)  
NUMA node(s): 4

NUMA node0 CPU(s): 0-9,40-49  
NUMA node1 CPU(s): 10-19,50-59  
NUMA node2 CPU(s): 20-29,60-69  
NUMA node3 CPU(s): 30-39,70-79

Vulnerability Itlb multihit: Not affected  
Vulnerability Lltf: Not affected  
Vulnerability Mds: Not affected  
Vulnerability Meltdown: Not affected

Vulnerability Spec store bypass: Mitigation; Speculative Store Bypass disabled via prctl  
Vulnerability Spectre v1: Mitigation; usercopy/swaps 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	3.8M	12	Data	1	64	1	64
L1i	32K	2.5M	8	Instruction	1	64	1	64
L2	2M	160M	16	Unified	2	2048	1	64
L3	105M	210M	15	Unified	3	114688	1	64

### 8. numactl --hardware

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

```
available: 4 nodes (0-3)
node 0 cpus: 0-9,40-49
node 0 size: 257756 MB
node 0 free: 256856 MB
node 1 cpus: 10-19,50-59
node 1 size: 258043 MB
node 1 free: 257511 MB
node 2 cpus: 20-29,60-69
node 2 size: 258043 MB
node 2 free: 257407 MB
node 3 cpus: 30-39,70-79
node 3 size: 257996 MB
node 3 free: 257263 MB
node distances:
node  0  1  2  3
0:  10  20  30  30
1:  20  10  30  30
2:  30  30  10  20
3:  30  30  20  10
```

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

## Hewlett Packard Enterprise

(Test Sponsor: HPE)

### ProLiant DL380 Gen11

(2.00 GHz, Intel Xeon Platinum 8460Y+)

SPECspeed®2017\_int\_base = 14.1

SPECspeed®2017\_int\_peak = 14.3

**CPU2017 License:** 3  
**Test Sponsor:** HPE  
**Tested by:** HPE

**Test Date:** Feb-2023  
**Hardware Availability:** Jan-2023  
**Software Availability:** May-2022

## Platform Notes (Continued)

```

9. /proc/meminfo
   MemTotal:      1056604056 kB

-----

10. who -r
    run-level 3 Feb 22 00:37

-----

11. Systemd service manager version: systemd 250 (250-6.el9_0)
    Default Target Status
    multi-user      running

-----

12. Services, from systemctl list-unit-files
STATE      UNIT FILES
enabled    NetworkManager NetworkManager-dispatcher NetworkManager-wait-online auditd chronyd crond
           dbus-broker firewalld getty@ irqbalance kdump lvm2-monitor mdmonitor microcode
           nis-domainname rhsmcertd rsyslog selinux-autorelabel-mark sshd sssd
           systemd-network-generator tuned udisks2 upower
enabled-runtime  systemd-remount-fs
disabled        blk-availability canberra-system-bootup canberra-system-shutdown
                 canberra-system-shutdown-reboot chrony-wait console-getty cpupower debug-shell
                 hwloc-dump-hwdata ipsec kvm_stat man-db-restart-cache-update nftables powertop rdisc rhsm
                 rhsm-facts rpmdb-rebuild serial-getty@ sshd-keygen@ systemd-boot-check-no-failures
                 systemd-pstore systemd-sysext
indirect       sssd-autofs sssd-kcm sssd-nss sssd-pac sssd-pam sssd-ssh sssd-sudo

-----

13. Linux kernel boot-time arguments, from /proc/cmdline
BOOT_IMAGE=(hd0,gpt2)/vmlinuz-5.14.0-70.13.1.el9_0.x86_64
root=/dev/mapper/rhel-root
ro
resume=/dev/mapper/rhel-swap
rd.lvm.lv=rhel/root
rd.lvm.lv=rhel/swap

-----

14. cpupower frequency-info
    analyzing CPU 0:
      Unable to determine current policy
      boost state support:
        Supported: yes
        Active: yes

-----

15. tuned-adm active
    Current active profile: accelerator-performance

-----

16. sysctl
kernel.numa_balancing      1
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             40
vm.dirty_writeback_centisecs 500
vm.dirtytime_expire_seconds 43200

```

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

## Hewlett Packard Enterprise

(Test Sponsor: HPE)

### ProLiant DL380 Gen11

(2.00 GHz, Intel Xeon Platinum 8460Y+)

SPECspeed®2017\_int\_base = 14.1

SPECspeed®2017\_int\_peak = 14.3

**CPU2017 License:** 3

**Test Sponsor:** HPE

**Tested by:** HPE

**Test Date:** Feb-2023

**Hardware Availability:** Jan-2023

**Software Availability:** May-2022

## Platform Notes (Continued)

```

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                 10
vm.watermark_boost_factor    15000
vm.watermark_scale_factor    10
vm.zone_reclaim_mode         0

```

```

-----
17. /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

```

```

-----
18. /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

```

```

-----
19. OS release
From /etc/*-release /etc/*-version
os-release      Red Hat Enterprise Linux 9.0 (Plow)
redhat-release  Red Hat Enterprise Linux release 9.0 (Plow)
system-release  Red Hat Enterprise Linux release 9.0 (Plow)

```

```

-----
20. Disk information
SPEC is set to: /home/cpu2017_19
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/mapper/rhel-home xfs   372G 369G  2.9G 100% /home

```

```

-----
21. /sys/devices/virtual/dmi/id
Vendor:          HPE
Product:         ProLiant DL380 Gen11
Product Family: ProLiant
Serial:          CNX21000G8

```

```

-----
22. dmidecode
Additional information from dmidecode 3.3 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.
Memory:
  16x Hynix HMC94AEBRA103N 64 GB 2 rank 4800

```

```

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

```

(Continued on next page)





# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

**ProLiant DL380 Gen11**

(2.00 GHz, Intel Xeon Platinum 8460Y+)

SPECspeed®2017\_int\_base = 14.1

SPECspeed®2017\_int\_peak = 14.3

**CPU2017 License:** 3

**Test Sponsor:** HPE

**Tested by:** HPE

**Test Date:** Feb-2023

**Hardware Availability:** Jan-2023

**Software Availability:** May-2022

## Platform Notes (Continued)

BIOS Vendor: HPE  
BIOS Version: 1.22  
BIOS Date: 01/18/2023  
BIOS Revision: 1.22  
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 2022.1.0 Build 20220316  
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 2022.1.0 Build 20220316  
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 2022.1.0 Build 20220316  
Copyright (C) 1985-2022 Intel Corporation. All rights reserved.

## Base Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Fortran benchmarks:

ifx

## 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

(Continued on next page)



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

**ProLiant DL380 Gen11**

(2.00 GHz, Intel Xeon Platinum 8460Y+)

SPECspeed®2017\_int\_base = 14.1

SPECspeed®2017\_int\_peak = 14.3

**CPU2017 License:** 3

**Test Sponsor:** HPE

**Tested by:** HPE

**Test Date:** Feb-2023

**Hardware Availability:** Jan-2023

**Software Availability:** May-2022

## Base Portability Flags (Continued)

```
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 -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

## Peak Portability Flags

Same as Base Portability Flags



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

**ProLiant DL380 Gen11**

(2.00 GHz, Intel Xeon Platinum 8460Y+)

SPECspeed®2017\_int\_base = 14.1

SPECspeed®2017\_int\_peak = 14.3

**CPU2017 License:** 3

**Test Sponsor:** HPE

**Tested by:** HPE

**Test Date:** Feb-2023

**Hardware Availability:** Jan-2023

**Software Availability:** May-2022

## Peak Optimization Flags

C benchmarks:

```
600.perlbench_s: -m64 -std=c11 -Wl,-z,muldefs -fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xCORE-AVX512 -O3
-ffast-math -flto -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.profdata(pass 2) -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
```

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

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

[http://www.spec.org/cpu2017/flags/Intel-ic2022-official-linux64\\_revA.html](http://www.spec.org/cpu2017/flags/Intel-ic2022-official-linux64_revA.html)

<http://www.spec.org/cpu2017/flags/HPE-Platform-Flags-Intel-SPR-rev1.1.html>

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

[http://www.spec.org/cpu2017/flags/Intel-ic2022-official-linux64\\_revA.xml](http://www.spec.org/cpu2017/flags/Intel-ic2022-official-linux64_revA.xml)

<http://www.spec.org/cpu2017/flags/HPE-Platform-Flags-Intel-SPR-rev1.1.xml>



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

**Hewlett Packard Enterprise**

(Test Sponsor: HPE)

ProLiant DL380 Gen11

(2.00 GHz, Intel Xeon Platinum 8460Y+)

SPECspeed®2017\_int\_base = 14.1

SPECspeed®2017\_int\_peak = 14.3

**CPU2017 License:** 3

**Test Sponsor:** HPE

**Tested by:** HPE

**Test Date:** Feb-2023

**Hardware Availability:** Jan-2023

**Software Availability:** May-2022

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](mailto:info@spec.org).

Tested with SPEC CPU®2017 v1.1.9 on 2023-02-21 14:08:10-0500.  
Report generated on 2024-01-29 17:28:03 by CPU2017 PDF formatter v6716.  
Originally published on 2023-03-28.