



SPEC CPU®2017 Integer Speed Result

Copyright 2017-2025 Standard Performance Evaluation Corporation

Hewlett Packard Enterprise

(Test Sponsor: HPE)

ProLiant Compute DL580 Gen12

(2.40 Ghz, Intel Xeon 6768P)

SPECspeed®2017_int_base = 14.0

SPECspeed®2017_int_peak = 14.2

CPU2017 License: 3

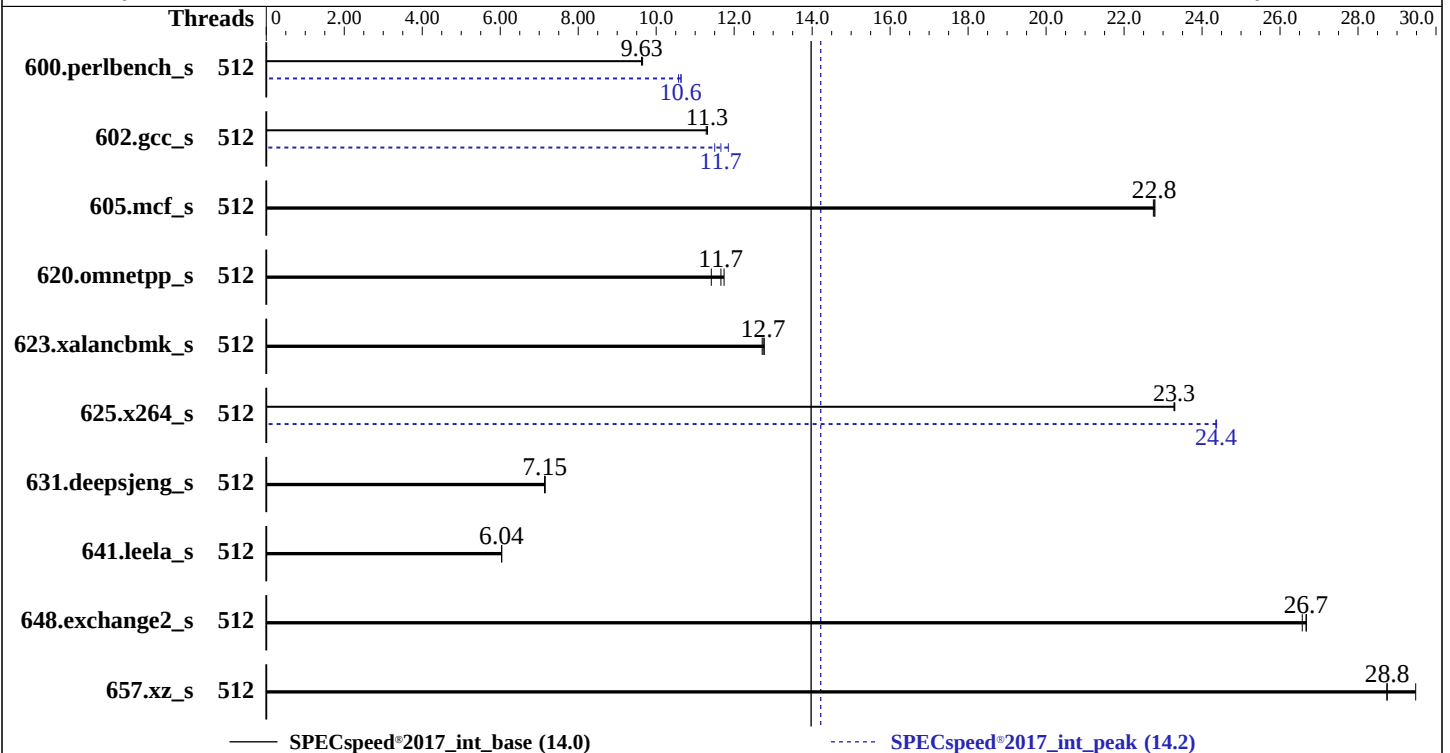
Test Sponsor: HPE

Tested by: HPE

Test Date: Sep-2025

Hardware Availability: Jul-2025

Software Availability: Jul-2025



Hardware

CPU Name: Intel Xeon 6768P
Max MHz: 3900
Nominal: 2400
Enabled: 256 cores, 4 chips, 2 threads/core
Orderable: 1,2,4 Chips
Cache L1: 64 KB I + 48 KB D on chip per core
L2: 2 MB I+D on chip per core
L3: 336 MB I+D on chip per chip
Other: None
Memory: 2 TB (32 x 64 GB 2Rx4 PC5-6400B-R)
Storage: 1 x 1.8 TB NVMe SSD
Other: CPU Cooling: Air

Software

OS: SUSE Linux Enterprise Server 15 SP6
Kernel 6.4.0-150600.23.60-default
Compiler: C/C++: Version 2024.1 of Intel oneAPI DPC++/C++ Compiler for Linux;
Fortran: Version 2024.1 of Intel Fortran Compiler for Linux;
Parallel: Yes
Firmware: HPE BIOS Version v1.43 07/09/2025 released Jul-2025
File System: btrfs
System State: Run level 3 (multi-user graphical)
Base Pointers: 64-bit
Peak Pointers: 64-bit
Other: jemalloc memory allocator V5.0.1
Power Management: BIOS set to prefer performance at the cost of additional power usage



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Results Table

Benchmark	Base							Peak						
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
600.perlbench_s	512	184	9.63	184	9.65	184	9.62	512	168	10.6	167	10.6	167	10.6
602.gcc_s	512	352	11.3	352	11.3	353	11.3	512	336	11.9	346	11.5	342	11.7
605.mcf_s	512	208	22.8	207	22.8	207	22.8	512	208	22.8	207	22.8	207	22.8
620.omnetpp_s	512	140	11.7	139	11.7	143	11.4	512	140	11.7	139	11.7	143	11.4
623.xalanchmk_s	512	111	12.7	111	12.7	111	12.8	512	111	12.7	111	12.7	111	12.8
625.x264_s	512	75.7	23.3	75.8	23.3	75.8	23.3	512	72.4	24.4	72.4	24.4	72.4	24.4
631.deepsjeng_s	512	201	7.15	200	7.15	201	7.14	512	201	7.15	200	7.15	201	7.14
641.leela_s	512	283	6.04	283	6.04	283	6.03	512	283	6.04	283	6.04	283	6.03
648.exchange2_s	512	110	26.7	111	26.6	110	26.7	512	110	26.7	111	26.6	110	26.7
657.xz_s	512	210	29.5	215	28.8	215	28.7	512	210	29.5	215	28.8	215	28.7

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

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>
tuned-adm profile was stopped using "systemctl stop tuned"

Environment Variables Notes

Environment variables set by runcpu before the start of the run:
KMP_AFFINITY = "granularity=fine,scatter"
LD_LIBRARY_PATH = "/home/cpu2017/lib/intel64:/home/cpu2017/je5.0.1-64"
MALLOCONF = "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>



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Platform Notes

BIOS Configurations : Parameters are selected in the order shown below

Workload Profile set to General Peak Frequency Compute

Enhanced Processor Performance Profile set to Aggressive

Thermal Configuration set to Maximum Cooling

Memory Patrol Scrubbing set to Disabled

Last Level Cache (LLC) Prefetch set to Enabled

XPT Prefetch set to Disabled

Intel UPI Prefetch set to Disabled

Workload Profile set to Custom

Collaborative Power Control set to Enabled

Sysinfo program /home/cpu2017/bin/sysinfo

Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197

running on localhost Tue Sep 2 09:27:32 2025

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

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```
1. uname -a
Linux localhost 6.4.0-150600.23.60-default #1 SMP PREEMPT_DYNAMIC Tue Jul 1 14:43:49 UTC 2025 (6f98261)
x86_64 x86_64 x86_64 GNU/Linux
```

```
2. w
09:27:32 up 7 min, 1 user, load average: 1.36, 3.23, 2.21
USER   TTY      FROM             LOGIN@   IDLE   JCPU   PCPU   WHAT
benchmar pts/5    :pts/4:S.0       09:26    1:30   0.04s  0.00s  SCREEN -S spec
benchmar pts/6    :pts/4:S.0       09:26    1.00s  0.87s  0.00s  sudo su
```

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

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Platform Notes (Continued)

From the command 'logname': benchmark

```
-----
4. ulimit -a
core file size          (blocks, -c) 0
data seg size           (kbytes, -d) unlimited
scheduling priority     (-e) 0
file size               (blocks, -f) unlimited
pending signals         (-i) 8254212
max locked memory       (kbytes, -l) 8192
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) 8254212
virtual memory          (kbytes, -v) unlimited
file locks              (-x) unlimited
-----

5. sysinfo process ancestry
/usr/lib/systemd/systemd --switched-root --system --deserialize=42
sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups
sshd: benchmark [priv]
sshd: benchmark@notty
sh
/home/benchmark/.vscode-server/code-488a1f239235055e34e673291fb8d8c810886f81 command-shell --cli-data-dir
/home/benchmark/.vscode-server/cli --parent-process-id 8573 --on-host=127.0.0.1 --on-port
sh
/home/benchmark/.vscode-server/cli/servers/Stable-488a1f239235055e34e673291fb8d8c810886f81/server/bin/code
-server --connection-token=remotessh --accept-server-license-terms --start-server
--enable-remote-auto-shutdown --socket-path=/tmp/code-992a71a5-2757-46a5-8ab4-f078138ecf99
/home/benchmark/.vscode-server/cli/servers/Stable-488a1f239235055e34e673291fb8d8c810886f81/server/node
/home/benchmark/.vscode-server/cli/servers/Stable-488a1f239235055e34e673291fb8d8c810886f81/server/out/serv
er-main.js --connection-token=remotessh --accept-server-license-terms --start-server
--enable-remote-auto-shutdown --socket-path=/tmp/code-992a71a5-2757-46a5-8ab4-f078138ecf99
/home/benchmark/.vscode-server/cli/servers/Stable-488a1f239235055e34e673291fb8d8c810886f81/server/node
/home/benchmark/.vscode-server/cli/servers/Stable-488a1f239235055e34e673291fb8d8c810886f81/server/out/boot
strap-fork --type=ptyHost --logsPath /home/benchmark/.vscode-server/data/logs/20250902T092550
/bin/bash --init-file
/home/benchmark/.vscode-server/cli/servers/Stable-488a1f239235055e34e673291fb8d8c810886f81/server/out/vs/w
orkbench/contrib/terminal/common/scripts/shellIntegration-bash.sh
screen -S spec
SCREEN -S spec
/bin/bash
sudo su
sudo su
su
bash
bash
runcpu --nobuild --action validate --define default-platform-flags -c 6768P-avx512-speed-20240308.cfg
--define cores=256 --tune base,peak -o all --define intspeedaffinity --define smt-on --define drop_caches
intspeed
runcpu --nobuild --action validate --define default-platform-flags --configfile
6768P-avx512-speed-20240308.cfg --define cores=256 --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/CPU2017.001/temlogs/preenv.intspeed.001.0.log --lognum 001.0 --from_runcpu 2
-----
```

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Platform Notes (Continued)

```
specperl $SPEC/bin/sysinfo
$SPEC = /home/cpu2017
```

```
-----
6. /proc/cpuinfo
model name      : Intel(R) Xeon(R) 6768P
vendor_id      : GenuineIntel
cpu family     : 6
model          : 173
stepping       : 1
microcode      : 0x10003c2
bugs           : spectre_v1 spectre_v2 spec_store_bypass swapgs bhi
cpu cores      : 64
siblings       : 128
4 physical ids (chips)
512 processors (hardware threads)
physical id 0: core ids 0-31,64-95
physical id 1: core ids 0-31,64-95
physical id 2: core ids 0-31,64-95
physical id 3: core ids 0-31,64-95
physical id 0: apicids 0-63,128-191
physical id 1: apicids 256-319,384-447
physical id 2: apicids 512-575,640-703
physical id 3: apicids 768-831,896-959
```

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 2.39.3:

```
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):                 512
On-line CPU(s) list:    0-511
Vendor ID:              GenuineIntel
Model name:             Intel(R) Xeon(R) 6768P
CPU family:             6
Model:                  173
Thread(s) per core:     2
Core(s) per socket:     64
Socket(s):              4
Stepping:               1
BogoMIPS:               4800.00
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 intel_ppin
                        cdp_l2 ssbd mba ibrs ibpb stibp ibrs_enhanced tpr_shadow
                        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 user_shstk avx_vnni
```

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Platform Notes (Continued)

avx512_bf16 wbnoinvd dtherm ida arat pln pts vnmi 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 ibt amx_bf16 avx512_fp16 amx_tile amx_int8
flush_l1d arch_capabilities

VT-x

12 MiB (256 instances)

16 MiB (256 instances)

512 MiB (256 instances)

1.3 GiB (4 instances)

8

Virtualization:

L1d cache:

L1i cache:

L2 cache:

L3 cache:

NUMA node(s):

NUMA node0 CPU(s):

NUMA node1 CPU(s):

NUMA node2 CPU(s):

NUMA node3 CPU(s):

NUMA node4 CPU(s):

NUMA node5 CPU(s):

NUMA node6 CPU(s):

NUMA node7 CPU(s):

Vulnerability Gather data sampling:

Vulnerability Indirect target selection:

Vulnerability Itlb multihit:

Vulnerability L1tf:

Vulnerability Mds:

Vulnerability Meltdown:

Vulnerability Mmio stale data:

Vulnerability Reg file data sampling:

Vulnerability Retbleed:

Vulnerability Spec rstack overflow:

Vulnerability Spec store bypass:

Vulnerability Spectre v1:

Not affected

Not affected

Not affected

Not affected

Not affected

Not affected

Not affected

Not affected

Not affected

Not affected

Mitigation; Speculative Store Bypass disabled via prctl

Mitigation; usercopy/swaps barriers and __user pointer

sanitization

Vulnerability Spectre v2:

Mitigation; Enhanced / Automatic IBRS; IBPB conditional;

PBRSE-eIBRS Not affected; BHI BHI_DIS_S

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	12M	12	Data	1	64	1	64
L1i	64K	16M	16	Instruction	1	64	1	64
L2	2M	512M	16	Unified	2	2048	1	64
L3	336M	1.3G	16	Unified	3	344064	1	64

8. numactl --hardware

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

available: 8 nodes (0-7)

node 0 cpus: 0-31,256-287

node 0 size: 257561 MB

node 0 free: 256483 MB

node 1 cpus: 32-63,288-319

node 1 size: 258031 MB

node 1 free: 257200 MB

node 2 cpus: 64-95,320-351

node 2 size: 258031 MB

node 2 free: 255084 MB

node 3 cpus: 96-127,352-383

node 3 size: 258031 MB

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Platform Notes (Continued)

```
node 3 free: 256704 MB
node 4 cpus: 128-159,384-415
node 4 size: 258031 MB
node 4 free: 257305 MB
node 5 cpus: 160-191,416-447
node 5 size: 257992 MB
node 5 free: 256834 MB
node 6 cpus: 192-223,448-479
node 6 size: 258031 MB
node 6 free: 256872 MB
node 7 cpus: 224-255,480-511
node 7 size: 257876 MB
node 7 free: 257091 MB
node distances:
node  0  1  2  3  4  5  6  7
0:  10  12  21  21  21  21  21  21
1:  12  10  21  21  21  21  21  21
2:  21  21  10  12  21  21  21  21
3:  21  21  12  10  21  21  21  21
4:  21  21  21  21  10  12  21  21
5:  21  21  21  21  12  10  21  21
6:  21  21  21  21  21  21  10  12
7:  21  21  21  21  21  21  12  10
```

9. /proc/meminfo

MemTotal: 2113112132 kB

10. who -r

run-level 3 Sep 2 09:26 last=5

11. Systemd service manager version: systemd 254 (254.27+suse.167.g130293e510)

Default Target Status
graphical running

12. Services, from systemctl list-unit-files

STATE	UNIT FILES
enabled	ModemManager YaST2-Firstboot YaST2-Second-Stage apparmor appstream-sync-cache auditd bluetooth chronyd cron display-manager getty@ irqbalance iscsi issue-generator kbdsettings klog lvm2-monitor nscd nvmeofc-boot-connections nvmeofc-autoconnect postfix purge-kernels rollback rsyslog smartd sshd systemd-pstore virtqemud wicked wickedd-auto4 wickedd-dhcp4 wickedd-dhcp6 wickedd-nanny wpa_supplicant
enabled-runtime	systemd-remount-fs
disabled	NetworkManager NetworkManager-dispatcher NetworkManager-wait-online accounts-daemon autofs autoyast-initscripts blk-availability bluetooth-mesh boot-sysctl ca-certificates chrony-wait console-getty cups cups-browsed debug-shell dmraid-activation dnsmasq ebttables exchange-bmc-os-info firewalld fsidd gpm grub2-once haveged hwloc-dump-hwdata ipmi ipmievd iscsi-init iscsid issue-add-ssh-keys kexec-load ksm kvm_stat libvirt-guests lunmask man-db-create multipathd nfs nfs-blkmap nfs-server nfsserver nmb openvpn@ ostree-remount rpcbind rpmconfigcheck rsyncd rtkit-daemon serial-getty@ smartd_generate_opts smb snmpd snmptrapd speech-dispatcherd systemd-boot-check-no-failures systemd-confext systemd-network-generator systemd-nspawn@ systemd-sysextd systemd-time-wait-sync systemd-timesyncd tcsd tuned udisks2 update-system-flatpaks upower virtinterfaced virtlockd virtlogd virtnetworkd virtnodedevd virtnwfilterd virtsecret virtstoraged vncserver@ wpa_supplicant@
indirect	pcscd saned@ systemd-userdbd tftp wickedd

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Platform Notes (Continued)

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

```
BOOT_IMAGE=/boot/vmlinuz-6.4.0-150600.23.60-default
root=UUID=31ddc59e-f5ed-47da-8154-f16fa2fc98b8
splash=silent
mitigations=auto
quiet
security=apparmor
```

14. cpupower frequency-info

```
analyzing CPU 363:
  Unable to determine current policy
  boost state support:
    Supported: yes
    Active: yes
```

15. tuned-adm active

```
It seems that tuned daemon is not running, preset profile is not activated.
Preset profile: virtual-host
```

16. sysctl

```
kernel.numa_balancing          0
kernel.randomize_va_space      2
vm.compaction_proactiveness    20
vm.dirty_background_bytes      0
vm.dirty_background_ratio      40
vm.dirty_bytes                 0
vm.dirty_expire_centisecs      3000
vm.dirty_ratio                 20
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                   1
vm.watermark_boost_factor      15000
vm.watermark_scale_factor      10
vm.zone_reclaim_mode           1
```

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
```

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Platform Notes (Continued)

19. OS release

From /etc/*-release /etc/*-version

os-release SUSE Linux Enterprise Server 15 SP6

20. Disk information

SPEC is set to: /home/cpu2017

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
/dev/nvme5n1p3	btrfs	1.8T	313G	1.5T	18%	/home

21. /sys/devices/virtual/dmi/id

Vendor: HPE

Product: HPE ProLiant Compute DL580 Gen12

Product Family: ProLiant

Serial: SANJACSCM

22. dmidecode

Additional information from dmidecode 3.6 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:

4x Hynix HMC694AHBRA480N 64 GB 2 rank 6400

5x Micron MTC40F2046S1RC64BD2 MWFF 64 GB 2 rank 6400

23x Micron MTC40F2046S1RC64BD2 QSFF 64 GB 2 rank 6400

23. BIOS

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

BIOS Vendor: HPE

BIOS Version: 1.43

BIOS Date: 07/09/2025

BIOS Revision: 1.43

Firmware Revision: 1.17

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 2024.1.0 Build 20240308
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```
=====  
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 2024.1.0 Build 20240308
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SPEC CPU®2017 Integer Speed Result

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Hewlett Packard Enterprise

(Test Sponsor: HPE)

ProLiant Compute DL580 Gen12

(2.40 Ghz, Intel Xeon 6768P)

SPECspeed®2017_int_base = 14.0

SPECspeed®2017_int_peak = 14.2

CPU2017 License: 3

Test Sponsor: HPE

Tested by: HPE

Test Date: Sep-2025

Hardware Availability: Jul-2025

Software Availability: Jul-2025

Compiler Version Notes (Continued)

Fortran | 648.exchange2_s(base, peak)

Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308
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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
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:

-w -std=c11 -m64 -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:

-w -std=c++14 -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

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Software Availability: Jul-2025

Base Optimization Flags (Continued)

Fortran benchmarks:

```
-w -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

Peak Optimization Flags

C benchmarks:

```
600.perlbench_s: -w -m64 -std=c11 -Wl,-z,muldefs  
-fprofile-generate(pass 1)  
-fprofile-use=default.profdata(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: -w -m64 -std=c11 -Wl,-z,muldefs  
-fprofile-generate(pass 1)  
-fprofile-use=default.profdata(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
```

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SPECspeed®2017_int_peak = 14.2

CPU2017 License: 3

Test Sponsor: HPE

Tested by: HPE

Test Date: Sep-2025

Hardware Availability: Jul-2025

Software Availability: Jul-2025

Peak Optimization Flags (Continued)

605.mcf_s: basepeak = yes

625.x264_s: -w -std=c11 -m64 -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/HPE-Platform-Flags-Intel-GNR-rev1.3.html>

<http://www.spec.org/cpu2017/flags/Intel-ic2024-official-linux64.html>

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

<http://www.spec.org/cpu2017/flags/HPE-Platform-Flags-Intel-GNR-rev1.3.xml>

<http://www.spec.org/cpu2017/flags/Intel-ic2024-official-linux64.xml>

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