SPEC CPU®2017 Integer Rate Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

Hewlett Packard Enterprise

(Test Sponsor: HPE)

$SPECrate^®2017\_int\_base = 173$

ProLiant DL360 Gen11
(2.80 GHz, Intel Xeon Gold 6526Y)

$SPECrate^®2017_int_peak = $ Not Run

CPU2017 License: 3	**Test Date:** Jul-2024
Test Sponsor: HPE	**Hardware Availability:** Dec-2023
Tested by: HPE	**Software Availability:** Mar-2024

Copies scale: 0 15.0 35.0 55.0 75.0 95.0 110 125 140 155 170 185 200 215 230 245 260 275 290 305 320 335 350 370

Benchmark	Copies	Result
500.perlbench_r	32	129
502.gcc_r	32	146
505.mcf_r	32	289
520.omnetpp_r	32	122
523.xalancbmk_r	32	239
525.x264_r	32	355
531.deepsjeng_r	32	124
541.leela_r	32	115
548.exchange2_r	32	363
557.xz_r	32	81.3

SPECrate®2017_int_base (173)

Hardware

CPU Name: Intel Xeon Gold 6526Y
  Max MHz: 3900
  Nominal: 2800
Enabled: 16 cores, 1 chip, 2 threads/core
Orderable: 1 chip
Cache L1: 32 KB I + 48 KB D on chip per core
  L2: 2 MB I+D on chip per core
  L3: 37.5 MB I+D on chip per chip
  Other: None
Memory: 256 GB (8 x 32 GB 2Rx8 PC5-5600B-R, running at 5200)
Storage: 1 x 960 GB SATA SSD
Other: CPU Cooling: Air

Software

OS: SUSE Linux Enterprise Server 15 SP5 Kernel 5.14.21-150500.53-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: No
Firmware: HPE BIOS Version v2.22 06/19/2024 released Jun-2024
File System: xfs
System State: Run level 3 (multi-user)
Base Pointers: 64-bit
Peak Pointers: Not Applicable
Other: None
Power Management: BIOS and OS set to prefer performance at the cost of additional power usage

Standard Performance Evaluation Corporation (info@spec.org)   https://www.spec.org/

SPEC CPU®2017 Integer Rate Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

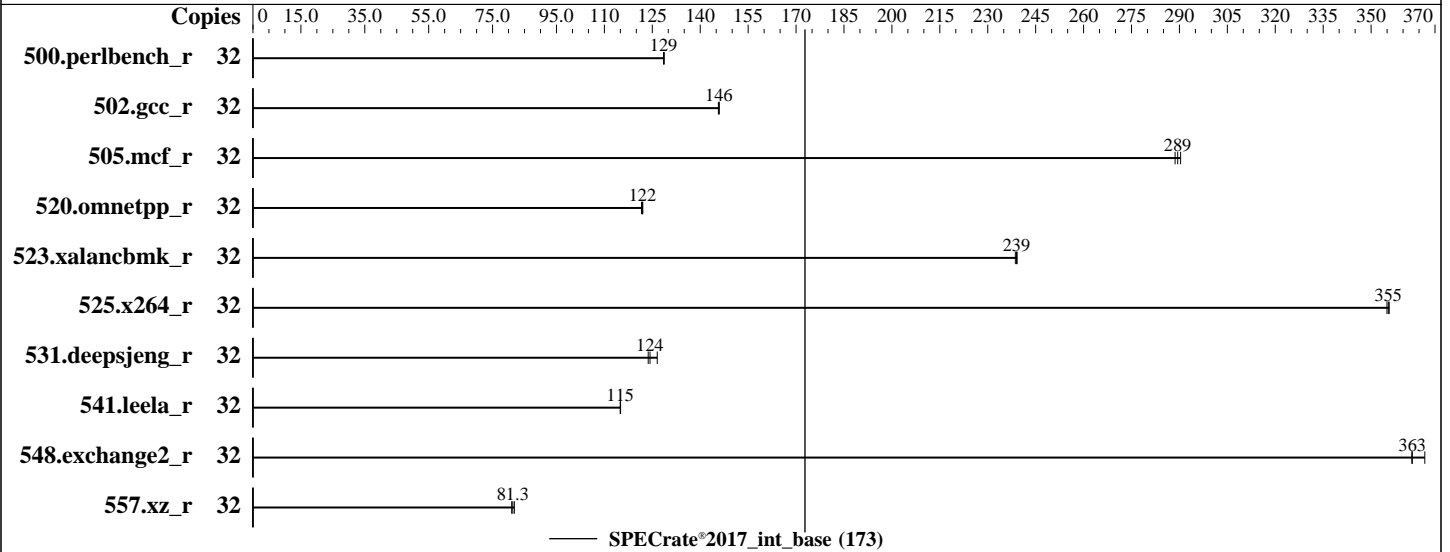**Hewlett Packard Enterprise**
(Test Sponsor: HPE)

ProLiant DL360 Gen11
(2.80 GHz, Intel Xeon Gold 6526Y)

SPECrate®2017_int_base =   173

SPECrate®2017_int_peak = Not Run

CPU2017 License: 3	**Test Date:** Jul-2024
Test Sponsor: HPE	**Hardware Availability:** Dec-2023
Tested by: HPE	**Software Availability:** Mar-2024

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
500.perlbench_r	32	396	129	396	129	**396**	**129**							
502.gcc_r	32	311	146	**311**	**146**	310	146							
505.mcf_r	32	179	289	**179**	**289**	178	290							
520.omnetpp_r	32	**344**	**122**	345	122	344	122							
523.xalancbmk_r	32	142	239	141	239	**141**	**239**							
525.x264_r	32	158	355	**158**	**355**	158	356							
531.deepsjeng_r	32	**295**	**124**	296	124	290	127							
541.leela_r	32	461	115	461	115	**461**	**115**							
548.exchange2_r	32	**231**	**363**	231	363	229	367							
557.xz_r	32	**425**	**81.3**	427	81.0	422	81.8							
SPECrate®2017_int_base =	**173**													
SPECrate®2017_int_peak =	**Not Run**													

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

Submit Notes

```
The numactl mechanism was used to bind copies to processors. The config file option 'submit'
was used to generate numactl commands to bind each copy to a specific processor.
For details, please see the config file.
```

Operating System Notes

```
Stack size set to unlimited using "ulimit -s unlimited"
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 set to throughput-performance using "tuned-adm profile throughput-performance"
```

Environment Variables Notes

```
Environment variables set by runcpu before the start of the run:
LD_LIBRARY_PATH = "/home/cpu2017/lib/intel64:/home/cpu2017/lib/ia32:/home/cpu2017/je5.0.1-32"
MALLOC_CONF = "retain:true"
```

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.
```

SPEC CPU®2017 Integer Rate Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

Hewlett Packard Enterprise

(Test Sponsor: HPE)

ProLiant DL360 Gen11
(2.80 GHz, Intel Xeon Gold 6526Y)

SPECrate®2017_int_base =   173

SPECrate®2017_int_peak = Not Run

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

Test Date: Jul-2024
Hardware Availability: Dec-2023
Software Availability: Mar-2024

Platform Notes

```
BIOS Configuration:
 Workload Profile set to General Throughput Compute
 Thermal Configuration set to Maximum Cooling
 Memory Patrol Scrubbing set to Disabled
 Enhanced Processor Performance Profile set to Aggressive
 Dead Block Predictor set to Enabled
 Last Level Cache (LLC) Dead Line Allocation set to Disabled
 Sub-NUMA Clustering set to Enable SNC2(2-clusters)
 Workload Profile set to Custom
  Adjacent Sector Prefetch set to Disabled
  DCU Stream Prefetcher set to Disabled

 Sysinfo program /home/cpu2017/bin/sysinfo
 Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197
 running on localhost Thu Jul 18 03:37:56 2024

 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 (249.16+suse.171.gdad0071f15)
 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 5.14.21-150500.53-default #1 SMP PREEMPT_DYNAMIC Wed May 10 07:56:26 UTC 2023 (b630043/lp)
   x86_64 x86_64 x86_64 GNU/Linux


 ------------------------------------------------------------
 2. w
    03:37:56 up 5 min,  1 user,  load average: 0.00, 0.00, 0.00
    USER      TTY       FROM             LOGIN@   IDLE   JCPU   PCPU WHAT
    root      pts/0     172.17.1.109     03:33   12.00s  0.78s  0.00s -bash


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

(Continued on next page)

Hewlett Packard Enterprise

(Test Sponsor: HPE)

ProLiant DL360 Gen11
(2.80 GHz, Intel Xeon Gold 6526Y)

SPECrate®2017_int_base = 173

SPECrate®2017_int_peak = Not Run

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

Test Date: Jul-2024
Hardware Availability: Dec-2023
Software Availability: Mar-2024

Platform Notes (Continued)

```
      --------------------------------------------------------------
   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) 1030655
      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) 1030655
      virtual memory          (kbytes, -v) unlimited
      file locks                      (-x) unlimited


      --------------------------------------------------------------
   5. sysinfo process ancestry
    /usr/lib/systemd/systemd --switched-root --system --deserialize 29
    sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups
    sshd: root@pts/0
    -bash
    -bash
    runcpu --nobuild --action validate --define default-platform-flags --define numcopies=32 -c
      ic2024.1-lin-sapphirerapids-rate-20240308.cfg --define smt-on --define cores=16 --define physicalfirst
      --define invoke_with_interleave --define drop_caches --tune base -n 3 -o all intrate
    runcpu --nobuild --action validate --define default-platform-flags --define numcopies=32 --configfile
      ic2024.1-lin-sapphirerapids-rate-20240308.cfg --define smt-on --define cores=16 --define physicalfirst
      --define invoke_with_interleave --define drop_caches --tune base --iterations 3 --output_format all
      --nopower --runmode rate --tune base --size refrate intrate --nopreenv --note-preenv --logfile
      $SPEC/tmp/CPU2017.002/templogs/preenv.intrate.002.0.log --lognum 002.0 --from_runcpu 2
    specperl $SPEC/bin/sysinfo
    $SPEC = /home/cpu2017


      --------------------------------------------------------------
   6. /proc/cpuinfo
      model name      : INTEL(R) XEON(R) GOLD 6526Y
      vendor_id       : GenuineIntel
      cpu family      : 6
      model           : 207
      stepping        : 2
      microcode       : 0x21000240
      bugs            : spectre_v1 spectre_v2 spec_store_bypass swapgs eibrs_pbrsb
      cpu cores       : 16
      siblings        : 32
      1 physical ids (chips)
      32 processors (hardware threads)
      physical id 0: core ids 0-15
      physical id 0: apicids 0-31
    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:
```

(Continued on next page)

Hewlett Packard Enterprise
(Test Sponsor: HPE)

ProLiant DL360 Gen11
(2.80 GHz, Intel Xeon Gold 6526Y)

SPECrate®2017_int_base = 173

SPECrate®2017_int_peak = Not Run

CPU2017 License:	3	**Test Date:**	Jul-2024
Test Sponsor:	HPE	**Hardware Availability:**	Dec-2023
Tested by:	HPE	**Software Availability:**	Mar-2024

Platform Notes (Continued)

```
  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):                              32
  On-line CPU(s) list:                 0-31
  Vendor ID:                           GenuineIntel
  Model name:                          INTEL(R) XEON(R) GOLD 6526Y
  CPU family:                          6
  Model:                               207
  Thread(s) per core:                  2
  Core(s) per socket:                  16
  Socket(s):                           1
  Stepping:                            2
  BogoMIPS:                            5600.00
  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
                                       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 avx_vnni avx512_bf16 wbnoinvd dtherm ida arat pln pts hfi
                                       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_l1d arch_capabilities
  Virtualization:                      VT-x
  L1d cache:                           768 KiB (16 instances)
  L1i cache:                           512 KiB (16 instances)
  L2 cache:                            32 MiB (16 instances)
  L3 cache:                            37.5 MiB (1 instance)
  NUMA node(s):                        2
  NUMA node0 CPU(s):                   0-7,16-23
  NUMA node1 CPU(s):                   8-15,24-31
  Vulnerability Itlb multihit:         Not affected
  Vulnerability L1tf:                  Not affected
  Vulnerability Mds:                   Not affected
  Vulnerability Meltdown:              Not affected
  Vulnerability Mmio stale data:       Not affected
  Vulnerability Retbleed:              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, PBRSB-eIBRS SW
                                       sequence
  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     768K   12 Data             1    64        1             64
     L1i       32K     512K    8 Instruction      1    64        1             64
     L2         2M      32M   16 Unified          2  2048        1             64
     L3      37.5M    37.5M   15 Unified          3 40960        1             64
```

(Continued on next page)

Hewlett Packard Enterprise

(Test Sponsor: HPE)

ProLiant DL360 Gen11
(2.80 GHz, Intel Xeon Gold 6526Y)

SPECrate®2017_int_base =   173

SPECrate®2017_int_peak = Not Run

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

Test Date: Jul-2024
Hardware Availability: Dec-2023
Software Availability: Mar-2024

Platform Notes (Continued)

```
-------------------------------------------------------------
8. numactl --hardware
NOTE: a numactl 'node' might or might not correspond to a physical chip.
  available: 2 nodes (0-1)
  node 0 cpus: 0-7,16-23
  node 0 size: 128679 MB
  node 0 free: 128075 MB
  node 1 cpus: 8-15,24-31
  node 1 size: 129008 MB
  node 1 free: 128126 MB
  node distances:
  node   0   1
    0:  10  20
    1:  20  10


-------------------------------------------------------------
9. /proc/meminfo
  MemTotal:       263871796 kB


-------------------------------------------------------------
10. who -r
  run-level 3 Jul 18 03:32


-------------------------------------------------------------
11. Systemd service manager version: systemd 249 (249.16+suse.171.gdad0071f15)
  Default Target  Status
  multi-user      running


-------------------------------------------------------------
12. Services, from systemctl list-unit-files
  STATE            UNIT FILES
  enabled          apparmor auditd cron getty@ irqbalance issue-generator kbdsettings postfix purge-kernels
                   rollback sshd systemd-pstore tuned wicked wickedd-auto4 wickedd-dhcp4 wickedd-dhcp6
                   wickedd-nanny
  enabled-runtime  systemd-remount-fs
  disabled         boot-sysctl ca-certificates chrony-wait chronyd console-getty debug-shell grub2-once
                   haveged haveged-switch-root hwloc-dump-hwdata issue-add-ssh-keys kexec-load lunmask
                   rpmconfigcheck serial-getty@ systemd-boot-check-no-failures systemd-network-generator
                   systemd-sysext systemd-time-wait-sync systemd-timesyncd
  indirect         pcscd wickedd


-------------------------------------------------------------
13. Linux kernel boot-time arguments, from /proc/cmdline
  BOOT_IMAGE=/boot/vmlinuz-5.14.21-150500.53-default
  root=UUID=65f8c630-625a-4316-81ef-8b2a075b341e
  splash=silent
  resume=/dev/disk/by-uuid/f51d909c-6cc3-417f-96c7-b77fec3ea376
  mitigations=auto
  quiet
  security=apparmor


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


-------------------------------------------------------------
```

(Continued on next page)

Hewlett Packard Enterprise

(Test Sponsor: HPE)

ProLiant DL360 Gen11
(2.80 GHz, Intel Xeon Gold 6526Y)

SPECrate®2017_int_base =   173

SPECrate®2017_int_peak = Not Run

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

Test Date: Jul-2024
Hardware Availability: Dec-2023
Software Availability: Mar-2024

Platform Notes (Continued)

```
15. tuned-adm active
  Current active profile: throughput-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                   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                    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+madvise [madvise] never
  enabled         [always] madvise 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 SUSE Linux Enterprise Server 15 SP5


  -------------------------------------------------------------
20. Disk information
SPEC is set to: /home/cpu2017
  Filesystem     Type  Size  Used Avail Use% Mounted on
  /dev/sda3      xfs   351G   43G  308G  13% /home


  -------------------------------------------------------------
21. /sys/devices/virtual/dmi/id
    Vendor:          HPE
    Product:         ProLiant DL360 Gen11
    Product Family:  ProLiant
    Serial:          CNX20800PW
```

(Continued on next page)

SPEC CPU®2017 Integer Rate Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

Hewlett Packard Enterprise
(Test Sponsor: HPE)

SPECrate®2017_int_base =   173

ProLiant DL360 Gen11
(2.80 GHz, Intel Xeon Gold 6526Y)

SPECrate®2017_int_peak = Not Run

CPU2017 License: 3		**Test Date:**	Jul-2024
Test Sponsor: HPE		**Hardware Availability:** Dec-2023
Tested by: HPE		**Software Availability:** Mar-2024

Platform Notes (Continued)

```
   -----------------------------------------------------------
   22. dmidecode
     Additional information from dmidecode 3.4 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:
       8x Hynix HMCG88AGBRA193N 32 GB 2 rank 5600, configured at 5200


   -----------------------------------------------------------
   23. BIOS
   (This section combines info from /sys/devices and dmidecode.)
     BIOS Vendor:      HPE
     BIOS Version:     2.22
     BIOS Date:        06/19/2024
     BIOS Revision:    2.22
     Firmware Revision: 1.55
```

Compiler Version Notes

```
==============================================================================
C      | 500.perlbench_r(base) 502.gcc_r(base) 505.mcf_r(base) 525.x264_r(base) 557.xz_r(base)
------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------


==============================================================================
C++    | 520.omnetpp_r(base) 523.xalancbmk_r(base) 531.deepsjeng_r(base) 541.leela_r(base)
------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------


==============================================================================
Fortran | 548.exchange2_r(base)
------------------------------------------------------------------------------
Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------
```

Base Compiler Invocation

C benchmarks:
icx

C++ benchmarks:
icpx

Fortran benchmarks:
ifx

SPEC CPU®2017 Integer Rate Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

Hewlett Packard Enterprise
(Test Sponsor: HPE)

ProLiant DL360 Gen11
(2.80 GHz, Intel Xeon Gold 6526Y)

SPECrate®2017_int_base =   173

SPECrate®2017_int_peak = Not Run

CPU2017 License:	3	**Test Date:**	Jul-2024
Test Sponsor:	HPE	**Hardware Availability:**	Dec-2023
Tested by:	HPE	**Software Availability:**	Mar-2024

Base Portability Flags

500.perlbench_r: -DSPEC_LP64 -DSPEC_LINUX_X64
502.gcc_r: -DSPEC_LP64
505.mcf_r: -DSPEC_LP64
520.omnetpp_r: -DSPEC_LP64
523.xalancbmk_r: -DSPEC_LP64 -DSPEC_LINUX
525.x264_r: -DSPEC_LP64
531.deepsjeng_r: -DSPEC_LP64
541.leela_r: -DSPEC_LP64
548.exchange2_r: -DSPEC_LP64
557.xz_r: -DSPEC_LP64

Base Optimization Flags

C benchmarks:
-w -std=c11 -m64 -Wl,-z,muldefs -xsapphirerapids -O3 -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-L/opt/intel/oneapi/compiler/2024.1/lib -lqkmalloc

C++ benchmarks:
-w -std=c++14 -m64 -Wl,-z,muldefs -xsapphirerapids -O3 -ffast-math
-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-L/opt/intel/oneapi/compiler/2024.1/lib -lqkmalloc

Fortran benchmarks:
-w -m64 -Wl,-z,muldefs -xsapphirerapids -O3 -ffast-math -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-nostandard-realloc-lhs -align array32byte -auto
-L/opt/intel/oneapi/compiler/2024.1/lib -lqkmalloc

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2017/flags/HPE-Platform-Flags-Intel-EMR-rev1.0.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-EMR-rev1.0.xml
http://www.spec.org/cpu2017/flags/Intel-ic2024-official-linux64.xml

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 2024-07-17 18:07:56-0400.
Report generated on 2024-08-14 14:00:54 by CPU2017 PDF formatter v6716.
Originally published on 2024-08-13.