# SPEC CPU®2026 Integer Rate Result



## New H3C Technologies Co., Ltd.

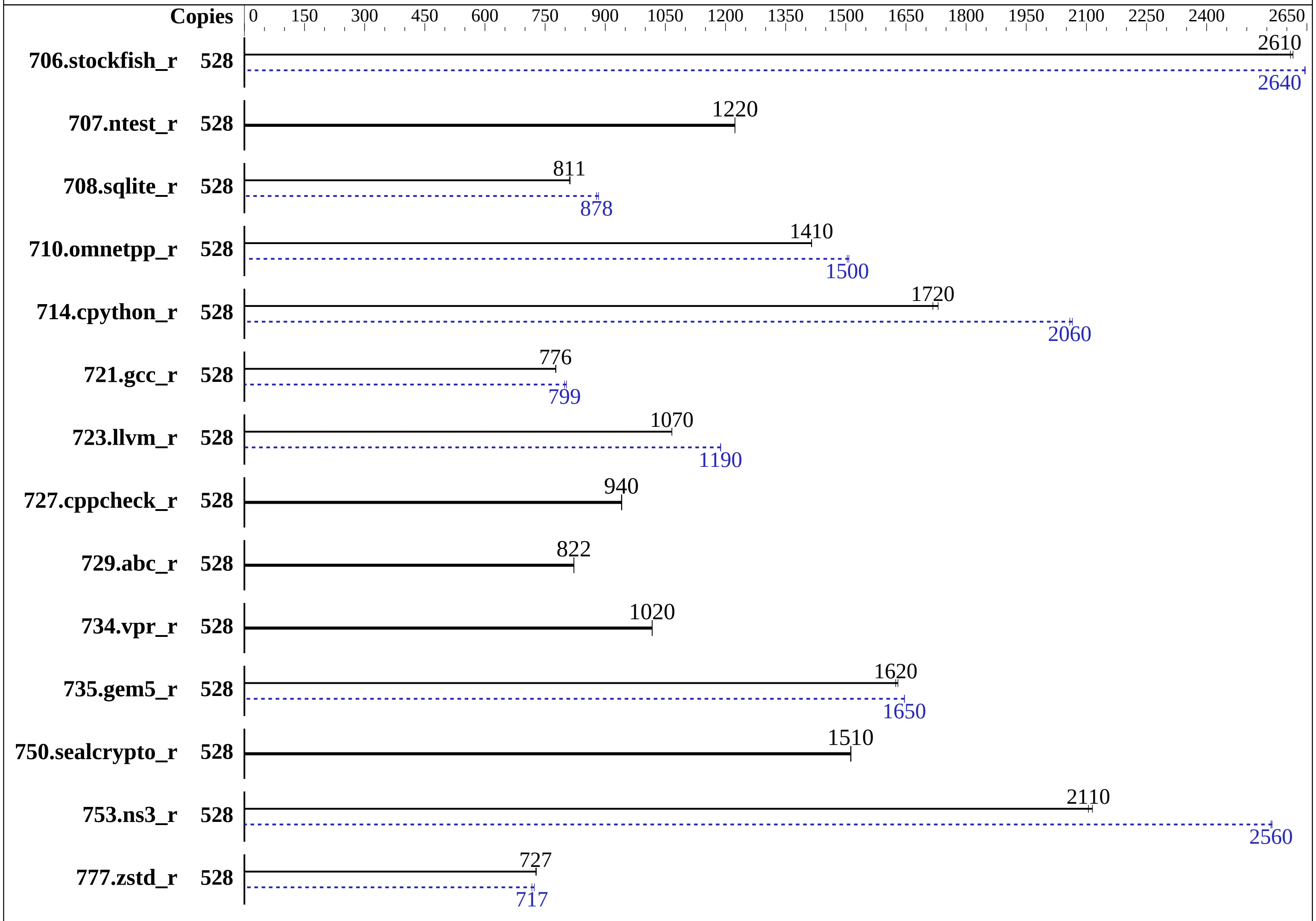
## H3C UniServer R4900 G7 (Intel Xeon 6980E+)

SPECrate®2026_int_base = 1220

SPECrate®2026_int_peak = 1270

**CPU2026 License:** 9066
**Test Sponsor:** New H3C Technologies Co., Ltd.
**Tested by:** New H3C Technologies Co., Ltd.

**Test Date:** Aug-2026
**Hardware Availability:** Jun-2026
**Software Availability:** Apr-2026




### Hardware

| | |
|---|---|
| CPU Name: | Intel Xeon 6980E+ |
| Max MHz: | 3200 |
| Nominal: | 2100 |
| Enabled: | 528 cores, 2 chips |
| Orderable: | 1,2 chips |
| Cache L1: | 64 KB I + 32 KB D on chip per core |
| L2: | 264 MB I+D on chip per chip, 4 MB shared / 4 cores |
| L3: | 528 MB I+D on chip per chip |
| Other: | None |
| Memory: | 1536 GB (24 x 64 GB 2Rx4 PC5-8000B-R) |
| Storage: | 1 x 3.84 TB NVME SSD |
| Cooling: | Air |
| Other: | None |

### Software

| | |
|---|---|
| OS: | SUSE Linux Enterprise Server 15 SP7<br>kernel 6.4.0-150700.51-default |
| Compiler: | C/C++: Version 2026.0 of Intel oneAPI DPC++/C++ Compiler for Linux;<br>Fortran: Version 2026.0 of Intel Fortran Compiler for Linux |
| Compiler Category: | Vendor |
| Firmware: | Version 7.10.25P94 released May-2026 BIOS |
| File System: | xfs |
| System State: | Run level 3 (multi-user) |
| Base Pointers: | 64-bit |
| Peak Pointers: | 64-bit |
| Other: | tcmalloc memory allocator v2.18.1 |

**(Continued on next page)**

## Software (Continued)

Power Management: BIOS and OS set to prefer performance at the cost of additional power usage.

## Results Table

| Benchmark | Base | | | | | | | Peak | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio |
| 706.stockfish_r | 528 | 254 | 2620 | **255** | **2610** | | | 528 | **252** | **2640** | 251 | 2650 | | |
| 707.ntest_r | 528 | 255 | 1220 | **255** | **1220** | | | 528 | 255 | 1220 | **255** | **1220** | | |
| 708.sqlite_r | 528 | **344** | **811** | 343 | 813 | | | 528 | 316 | 884 | **317** | **878** | | |
| 710.omnetpp_r | 528 | 181 | 1410 | **181** | **1410** | | | 528 | 170 | 1510 | **171** | **1500** | | |
| 714.cpython_r | 528 | 146 | 1730 | **147** | **1720** | | | 528 | 122 | 2070 | **123** | **2060** | | |
| 721.gcc_r | 528 | **467** | **776** | 466 | 777 | | | 528 | 451 | 803 | **454** | **799** | | |
| 723.llvm_r | 528 | 251 | 1070 | **251** | **1070** | | | 528 | 225 | 1190 | **225** | **1190** | | |
| 727.cppcheck_r | 528 | **202** | **940** | 201 | 941 | | | 528 | **202** | **940** | 201 | 941 | | |
| 729.abc_r | 528 | **295** | **822** | 295 | 822 | | | 528 | **295** | **822** | 295 | 822 | | |
| 734.vpr_r | 528 | 239 | 1020 | **239** | **1020** | | | 528 | 239 | 1020 | **239** | **1020** | | |
| 735.gem5_r | 528 | **158** | **1620** | 158 | 1630 | | | 528 | **156** | **1650** | 156 | 1650 | | |
| 750.sealcrypto_r | 528 | 187 | 1510 | **187** | **1510** | | | 528 | 187 | 1510 | **187** | **1510** | | |
| 753.ns3_r | 528 | 153 | 2120 | **154** | **2110** | | | 528 | **126** | **2560** | 126 | 2560 | | |
| 777.zstd_r | 528 | 467 | 728 | **468** | **727** | | | 528 | **474** | **717** | 470 | 723 | | |

**SPECrate®2026_int_base = 1220**

**SPECrate®2026_int_peak = 1270**

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"
```

## Environment Variables Notes

```
Environment variables set by runcpu before the start of the run:
LD_LIBRARY_PATH = "/home/spec2026/lib"
```

## General Notes

```
 Binaries compiled on a system with 2x Intel Xeon Platinum 8280M CPU + 384GB RAM
 memory using CentOS Stream 9.
 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>
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.
 tcmalloc, a fast, multithreaded malloc implementation
 built with the CentOS Stream 9, and the system compiler gcc 11.5.0
 sources available from github.com/gperftools/gperftools
```

## Platform Notes

```
BIOS Settings:
 SNC = Enable
 ACPI C6x Enumeration =  C6 as ACPI C2
 Latency Optimized Mode =  Enabled
BMC Settings:
 Fan mode = powerful mode

 Sysinfo program /home/spec2026/bin/sysinfo
 Rev: 779ab21020787073335a329f3a45e2cd
 running on localhost Wed Aug 26 17:50:38 2026

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

 ------------------------------------------------------------
 Table of contents
 ------------------------------------------------------------
  1. uname -srvm
  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
```

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## Platform Notes (Continued)

```
11. Systemd service manager version: systemd 254 (254.24+suse.148.g83b9060b6e)
12. Failed units, from systemctl list-units --state=failed
13. Services, from systemctl list-unit-files
14. Linux kernel boot-time arguments, from /proc/cmdline
15. cpupower frequency-info
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 -srvm
  Linux 6.4.0-150700.51-default #1 SMP PREEMPT_DYNAMIC Wed Apr 30 21:35:43 UTC 2025 (6930611/lp) x86_64

------------------------------------------------------------
2. w
   17:50:38 up  3:06,  4 users,  load average: 0.00, 0.01, 1.21
  USER     TTY      FROM             LOGIN@   IDLE   JCPU   PCPU WHAT
  root     tty1     -                17:49   14.00s  1.64s  0.02s -bash
  root     pts/0    172.17.74.7      16:33    1:15m  0.19s  0.19s -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) 6189059
  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) 6189059
  virtual memory          (kbytes, -v) unlimited
```

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## Platform Notes (Continued)

```
  file locks                          (-x) unlimited

 ------------------------------------------------------------
 5. sysinfo process ancestry
  /usr/lib/systemd/systemd --switched-root --system --deserialize=42
  login -- root
  -bash
  -bash
  runcpu --nobuild --reportable --action validate --define default-platform-flags --copies 528 -c
    ic2026.0-clearwaterforest-cpu2026-1.0.1-rate-20260429_revB.cfg --define smt-on --define cores=528 --define
    physicalfirst --define invoke_with_interleave --define drop_caches --reportable --tune base,peak -o all
    intrate
  runcpu --nobuild --reportable --action validate --define default-platform-flags --copies 528 --configfile
    ic2026.0-clearwaterforest-cpu2026-1.0.1-rate-20260429_revB.cfg --define smt-on --define cores=528 --define
    physicalfirst --define invoke_with_interleave --define drop_caches --reportable --tune base,peak
    --output_format all --nopower --runmode rate --tune base:peak --size refrate intrate --nopreenv
    --note-preenv --logfile $SPEC/tmp/CPU2026.016/templogs/preenv.intrate.016.0.log --lognum 016.0
    --from_runcpu 2
  specperl $SPEC/bin/sysinfo
 $SPEC = /home/spec2026

 ------------------------------------------------------------
 6. /proc/cpuinfo
     model name      : Intel(R) Xeon(R) 6980E+
     vendor_id       : GenuineIntel
     cpu family      : 6
     model           : 221
     stepping        : 1
     microcode       : 0x11000120
     bugs            : spectre_v1 spectre_v2 spec_store_bypass swapgs
     cpu cores       : 264
     siblings        : 264
     2 physical ids (chips)
     528 processors (hardware threads)
     physical id 0: core ids 0-87,128-215,256-343
     physical id 1: core ids 0-87,128-215,256-343
     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
    ,74,76,78,80,82,84,86,88,90,92,94,96,98,100,102,104,106,108,110,112,114,116,118,120,122,124,126,128,130,1
    32,134,136,138,140,142,144,146,148,150,152,154,156,158,160,162,164,166,168,170,172,174,256,258,260,262,26
    4,266,268,270,272,274,276,278,280,282,284,286,288,290,292,294,296,298,300,302,304,306,308,310,312,314,316
    ,318,320,322,324,326,328,330,332,334,336,338,340,342,344,346,348,350,352,354,356,358,360,362,364,366,368,
    370,372,374,376,378,380,382,384,386,388,390,392,394,396,398,400,402,404,406,408,410,412,414,416,418,420,4
    22,424,426,428,430,512,514,516,518,520,522,524,526,528,530,532,534,536,538,540,542,544,546,548,550,552,55
    4,556,558,560,562,564,566,568,570,572,574,576,578,580,582,584,586,588,590,592,594,596,598,600,602,604,606
    ,608,610,612,614,616,618,620,622,624,626,628,630,632,634,636,638,640,642,644,646,648,650,652,654,656,658,
     660,662,664,666,668,670,672,674,676,678,680,682,684,686
```

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## Platform Notes (Continued)

```
    physical id 1: apicids
      1024,1026,1028,1030,1032,1034,1036,1038,1040,1042,1044,1046,1048,1050,1052,1054,1056,1058,1060,1062,1064,
      1066,1068,1070,1072,1074,1076,1078,1080,1082,1084,1086,1088,1090,1092,1094,1096,1098,1100,1102,1104,1106,
      1108,1110,1112,1114,1116,1118,1120,1122,1124,1126,1128,1130,1132,1134,1136,1138,1140,1142,1144,1146,1148,
      1150,1152,1154,1156,1158,1160,1162,1164,1166,1168,1170,1172,1174,1176,1178,1180,1182,1184,1186,1188,1190,
      1192,1194,1196,1198,1280,1282,1284,1286,1288,1290,1292,1294,1296,1298,1300,1302,1304,1306,1308,1310,1312,
      1314,1316,1318,1320,1322,1324,1326,1328,1330,1332,1334,1336,1338,1340,1342,1344,1346,1348,1350,1352,1354,
      1356,1358,1360,1362,1364,1366,1368,1370,1372,1374,1376,1378,1380,1382,1384,1386,1388,1390,1392,1394,1396,
      1398,1400,1402,1404,1406,1408,1410,1412,1414,1416,1418,1420,1422,1424,1426,1428,1430,1432,1434,1436,1438,
      1440,1442,1444,1446,1448,1450,1452,1454,1536,1538,1540,1542,1544,1546,1548,1550,1552,1554,1556,1558,1560,
      1562,1564,1566,1568,1570,1572,1574,1576,1578,1580,1582,1584,1586,1588,1590,1592,1594,1596,1598,1600,1602,
      1604,1606,1608,1610,1612,1614,1616,1618,1620,1622,1624,1626,1628,1630,1632,1634,1636,1638,1640,1642,1644,
      1646,1648,1650,1652,1654,1656,1658,1660,1662,1664,1666,1668,1670,1672,1674,1676,1678,1680,1682,1684,1686,
      1688,1690,1692,1694,1696,1698,1700,1702,1704,1706,1708,1710
  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 2.40.4:
  Architecture:                         x86_64
  CPU op-mode(s):                       32-bit, 64-bit
  Address sizes:                        52 bits physical, 48 bits virtual
  Byte Order:                           Little Endian
  CPU(s):                               528
  On-line CPU(s) list:                  0-527
  Vendor ID:                            GenuineIntel
  Model name:                           Intel(R) Xeon(R) 6980E+
  CPU family:                           6
  Model:                                221
  Thread(s) per core:                   1
  Core(s) per socket:                   264
  Socket(s):                            2
  Stepping:                             1
  CPU(s) scaling MHz:                   26%
  CPU max MHz:                          3200.0000
  CPU min MHz:                          800.0000
  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 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
```

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## Platform Notes (Continued)

```
                                           ibrs_enhanced tpr_shadow flexpriority ept vpid ept_ad fsgsbase
                                           tsc_adjust bmi1 avx2 smep bmi2 erms invpcid cqm rdt_a rdseed adx smap
                                           clflushopt clwb intel_pt sha_ni xsaveopt xsavec xgetbv1 xsaves
                                           cqm_llc cqm_occup_llc cqm_mbm_total cqm_mbm_local split_lock_detect
                                           user_shstk avx_vnni lam wbnoinvd dtherm ida arat pln pts hwp
                                           hwp_act_window hwp_epp hwp_pkg_req vnmi umip pku ospke waitpkg gfni
                                           vaes vpclmulqdq tme rdpid bus_lock_detect cldemote movdiri movdir64b
                                           enqcmd fsrm md_clear serialize pconfig arch_lbr ibt flush_l1d
                                           arch_capabilities
  Virtualization:                          VT-x
  L1d cache:                               16.5 MiB (528 instances)
  L1i cache:                               33 MiB (528 instances)
  L2 cache:                                528 MiB (132 instances)
  L3 cache:                                1 GiB (2 instances)
  NUMA node(s):                            6
  NUMA node0 CPU(s):                       0-87
  NUMA node1 CPU(s):                       88-175
  NUMA node2 CPU(s):                       176-263
  NUMA node3 CPU(s):                       264-351
  NUMA node4 CPU(s):                       352-439
  NUMA node5 CPU(s):                       440-527
  Vulnerability Gather data sampling:      Not affected
  Vulnerability Itlb multihit:             Not affected
  Vulnerability L1tf:                      Not affected
  Vulnerability Mds:                       Not affected
  Vulnerability Meltdown:                  Not affected
  Vulnerability Mmio stale data:           Not affected
  Vulnerability Reg file data sampling:    Not affected
  Vulnerability Retbleed:                  Not affected
  Vulnerability Spec rstack overflow:      Not affected
  Vulnerability Spec store bypass:         Mitigation; Speculative Store Bypass disabled via prctl
  Vulnerability Spectre v1:                Mitigation; usercopy/swapgs barriers and __user pointer sanitization
  Vulnerability Spectre v2:                Mitigation; Enhanced / Automatic IBRS; IBPB conditional; RSB filling;
                                           PBRSB-eIBRS Not affected; BHI Not affected
  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       32K    16.5M    8 Data            1     64        1             64
     L1i       64K      33M    8 Instruction     1    128        1             64
     L2         4M     528M   16 Unified         2   4096        1             64
     L3       528M       1G   16 Unified         3 540672        1             64

------------------------------------------------------------
8. numactl --hardware
NOTE: a numactl 'node' might or might not correspond to a physical chip.
```

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## Platform Notes (Continued)

```
  available: 6 nodes (0-5)
  node 0 cpus: 0-87
  node 0 size: 257364 MB
  node 0 free: 256109 MB
  node 1 cpus: 88-175
  node 1 size: 258024 MB
  node 1 free: 257339 MB
  node 2 cpus: 176-263
  node 2 size: 258024 MB
  node 2 free: 255041 MB
  node 3 cpus: 264-351
  node 3 size: 258024 MB
  node 3 free: 257046 MB
  node 4 cpus: 352-439
  node 4 size: 257986 MB
  node 4 free: 257382 MB
  node 5 cpus: 440-527
  node 5 size: 257870 MB
  node 5 free: 256008 MB
  node distances:
  node   0   1   2   3   4   5
    0:  10  15  17  21  28  26
    1:  15  10  15  23  26  23
    2:  17  15  10  26  23  21
    3:  21  28  26  10  15  17
    4:  23  26  23  15  10  15
    5:  26  23  21  17  15  10

------------------------------------------------------------
9. /proc/meminfo
   MemTotal:       1584430020 kB

------------------------------------------------------------
10. who -r
  run-level 3 Aug 26 14:46

------------------------------------------------------------
11. Systemd service manager version: systemd 254 (254.24+suse.148.g83b9060b6e)
  Default Target  Status
  multi-user      degraded

------------------------------------------------------------
12. Failed units, from systemctl list-units --state=failed
    UNIT         LOAD   ACTIVE SUB    DESCRIPTION
  * sep5.service loaded failed failed systemd script to load sep5 driver at boot time

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

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## Platform Notes (Continued)

```
13. 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 issue-generator kbdsettings klog
                   lvm2-monitor nscd nvmefc-boot-connections nvmf-autoconnect postfix purge-kernels rollback
                   rsyslog sep5 smartd sshd systemd-pstore 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 ebtables
                   exchange-bmc-os-info firewalld fsidd gnome-remote-desktop gpm grub2-once haveged ipmi
                   ipmievd issue-add-ssh-keys kexec-load ksm kvm_stat lunmask man-db-create multipathd nfs
                   nfs-blkmap nmb openvpn@ ostree-remount ostree-state-overlay@ rpcbind rpmconfigcheck rsyncd
                   rtkit-daemon samba-bgqd serial-getty@ smartd_generate_opts smb snmpd snmptrapd
                   speech-dispatcherd systemd-boot-check-no-failures systemd-confext
                   systemd-network-generator systemd-sysext systemd-time-wait-sync systemd-timesyncd udisks2
                   update-system-flatpaks upower vncserver@ wpa_supplicant@
  indirect         pcscd saned@ systemd-userdbd wickedd

------------------------------------------------------------
14. Linux kernel boot-time arguments, from /proc/cmdline
  BOOT_IMAGE=/boot/vmlinuz-6.4.0-150700.51-default
  root=UUID=0ae3eb24-ab4b-4b8e-874e-74e44871a98f
  splash=silent
  resume=/dev/disk/by-uuid/ee1f2cac-1352-4dc9-8ca2-e927f2abe04e
  mitigations=auto
  quiet
  security=apparmor

------------------------------------------------------------
15. cpupower frequency-info
  analyzing CPU 195:
    current policy: frequency should be within 800 MHz and 3.20 GHz.
                    The governor "performance" may decide which speed to use
                    within this range.
    boost state support:
      Supported: yes
      Active: yes

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

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## Platform Notes (Continued)

```
  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                      60
  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 SP7

------------------------------------------------------------
20. Disk information
SPEC is set to: /home/spec2026
  Filesystem     Type  Size  Used Avail Use% Mounted on
  /dev/nvme0n1p3 xfs   3.0T  560G  2.5T  19% /home

------------------------------------------------------------
21. /sys/devices/virtual/dmi/id
    Vendor:         H3C
    Product:        R4900 G7 AP
```


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## Platform Notes (Continued)

```
    Product Family: Rack
    Serial:         210235A5QEH202606251

 ------------------------------------------------------------
 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:
     24x Hynix HMCG94CMBRA772N 64 GB 2 rank 8000


 ------------------------------------------------------------
 23. BIOS
 (This section combines info from /sys/devices and dmidecode.)
    BIOS Vendor:       American Megatrends International, LLC.
    BIOS Version:      7.10.25P94
    BIOS Date:         05/28/2026
    BIOS Revision:     5.35
    Firmware Revision: 3.1
```

## Compiler Version Notes

```
==============================================================================
C       | 708.sqlite_r(base, peak) 714.cpython_r(base, peak) 777.zstd_r(base,
        | peak)
------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
  Version 2026.0.0 Build 20260331
Copyright (C) 1985-2026 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------

==============================================================================
C++     | 706.stockfish_r(base, peak) 707.ntest_r(base, peak)
        | 727.cppcheck_r(base, peak) 753.ns3_r(base, peak)
------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
  Version 2026.0.0 Build 20260331
Copyright (C) 1985-2026 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------

==============================================================================
C++, C | 710.omnetpp_r(base, peak) 721.gcc_r(base, peak) 723.llvm_r(base,
       | peak) 729.abc_r(base, peak) 734.vpr_r(base, peak) 735.gem5_r(base,
       | peak) 750.sealcrypto_r(base, peak)
```

(Continued on next page)

## Compiler Version Notes (Continued)

```
------------------------------------------------------------------------------
Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
  Version 2026.0.0 Build 20260331
Copyright (C) 1985-2026 Intel Corporation. All rights reserved.
------------------------------------------------------------------------------
```

## Base Compiler Invocation

C benchmarks:
`icx`

C++ benchmarks:
`icpx`

Benchmarks using both C and C++:
`icpx icx`

## Base Optimization Flags

C benchmarks:
```
-m64 -std=c18 -Wl,-z,muldefs -Wl,-plugin-opt=-inline-threshold=1500
-xclearwaterforest -O3 -ffp-model=fast -flto -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4 -fno-strict-aliasing
-L/usr/local/tcmalloc-2.18.1/lib -ltcmalloc_minimal
```

C++ benchmarks:
```
-m64 -std=c++17 -Wl,-z,muldefs -Wl,-plugin-opt=-inline-threshold=1500
-xclearwaterforest -O3 -ffp-model=fast -flto -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4
-L/usr/local/tcmalloc-2.18.1/lib -ltcmalloc_minimal
```

Benchmarks using both C and C++:
```
-m64 -std=c++17 -std=c18 -Wl,-z,muldefs
-Wl,-plugin-opt=-inline-threshold=1500 -xclearwaterforest -O3
-ffp-model=fast -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -fno-strict-aliasing
-L/usr/local/tcmalloc-2.18.1/lib -ltcmalloc_minimal
```

# Peak Compiler Invocation

C benchmarks:
`icx`

C++ benchmarks:
`icpx`

Benchmarks using both C and C++:
`icpx icx`

# Peak Optimization Flags

C benchmarks:
-m64 -std=c18 -Wl,-z,muldefs -Wl,-plugin-opt=-inline-threshold=1500
-fprofile-generate(pass 1) -fprofile-use=default.profdata(pass 2)
-xCORE-AVX2(pass 1) -ffp-model=fast -xclearwaterforest(pass 2) -flto
-qopt-mem-layout-trans=4 -O3 -mfpmath=sse -funroll-loops
-fno-strict-aliasing -L/usr/local/tcmalloc-2.18.1/lib
-ltcmalloc_minimal

C++ benchmarks:

706.stockfish_r: -m64 -std=c++17 -Wl,-z,muldefs
-Wl,-plugin-opt=-inline-threshold=1500
-fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xCORE-AVX2(pass 1)
-ffp-model=fast -xclearwaterforest(pass 2) -flto
-qopt-mem-layout-trans=4 -O3 -mfpmath=sse -funroll-loops
-L/usr/local/tcmalloc-2.18.1/lib -ltcmalloc_minimal

707.ntest_r: basepeak = yes

727.cppcheck_r: basepeak = yes

753.ns3_r: Same as 706.stockfish_r

Benchmarks using both C and C++:

710.omnetpp_r: -m64 -std=c++17 -std=c18 -Wl,-z,muldefs
-Wl,-plugin-opt=-inline-threshold=1500
-fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xCORE-AVX2(pass 1)
-ffp-model=fast -xclearwaterforest(pass 2) -flto
-qopt-mem-layout-trans=4 -O3 -mfpmath=sse -funroll-loops
-fno-strict-aliasing -L/usr/local/tcmalloc-2.18.1/lib

**(Continued on next page)**

# Peak Optimization Flags (Continued)

710.omnetpp_r (continued):
-ltcmalloc_minimal

721.gcc_r: -m64 -std=c++17 -std=c18 -Wl,-z,muldefs
-fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xCORE-AVX2(pass 1)
-ffp-model=fast -xclearwaterforest(pass 2) -flto
-qopt-mem-layout-trans=4 -O3 -mfpmath=sse -funroll-loops
-fno-strict-aliasing -L/usr/local/tcmalloc-2.18.1/lib
-ltcmalloc_minimal

723.llvm_r: Same as 721.gcc_r

729.abc_r: basepeak = yes

734.vpr_r: basepeak = yes

735.gem5_r: Same as 710.omnetpp_r

750.sealcrypto_r: basepeak = yes

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2026/results/flags/Intel-ic2026-official-linux64-v1.1.html
http://www.spec.org/cpu2026/results/flags/New_H3C-Platform-Settings-Intel-CWF-RevA.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2026/results/flags/Intel-ic2026-official-linux64-v1.1.xml
http://www.spec.org/cpu2026/results/flags/New_H3C-Platform-Settings-Intel-CWF-RevA.xml



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