



SPEC CPU®2026 Floating Point Rate Result

Copyright 2026 Standard Performance Evaluation Corporation

Lenovo Global Technology

SPECrate®2026_fp_base = 822

ThinkSystem SR850 V3
(1.90 GHz, Intel Xeon Platinum 8490H)

SPECrate®2026_fp_peak = Not Run

CPU2026 License: 9017

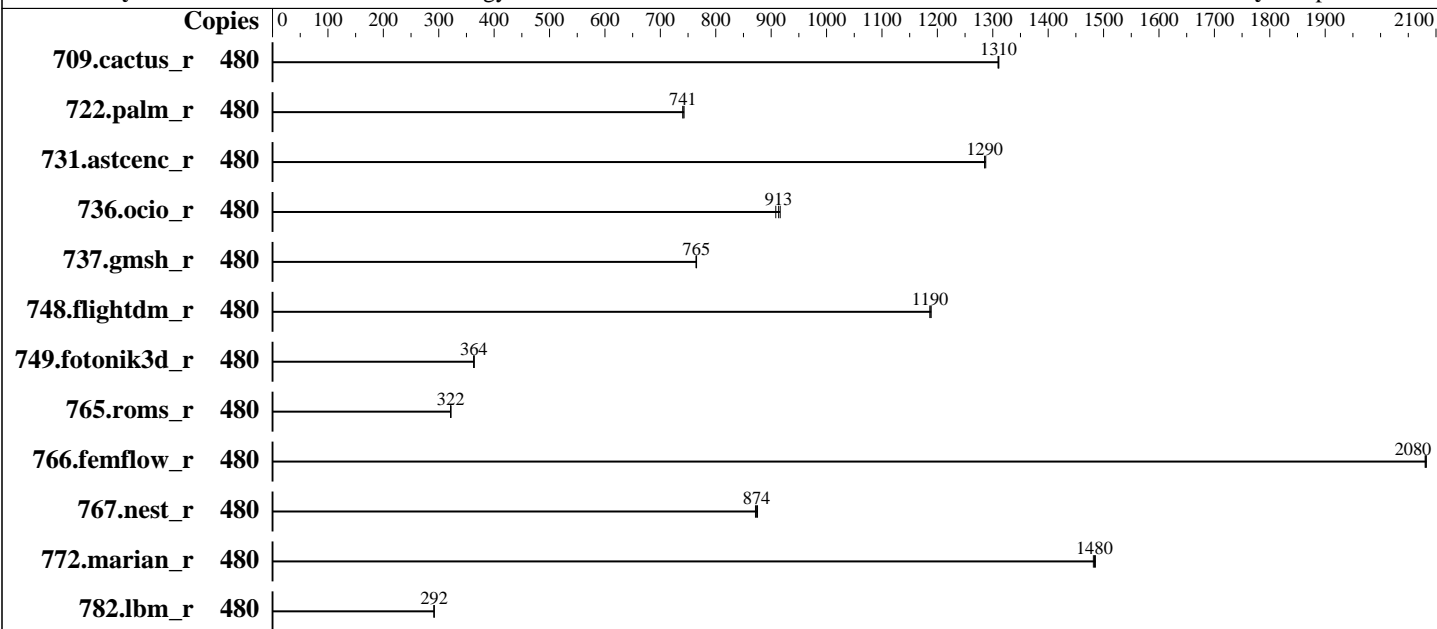
Test Date: May-2026

Test Sponsor: Lenovo Global Technology

Hardware Availability: Jun-2023

Tested by: Lenovo Global Technology

Software Availability: Apr-2026



Hardware

CPU Name: Intel Xeon Platinum 8490H
 Max MHz: 3500
 Nominal: 1900
 Enabled: 240 cores, 4 chips, 2 threads/core
 Orderable: 2,4 chips
 Cache L1: 32 KB I + 48 KB D on chip per core
 L2: 2 MB I+D on chip per core
 L3: 112.5 MB I+D on chip per chip
 Other: None
 Memory: 1 TB (32 x 32 GB 2Rx8 PC5-4800B-R)
 Storage: 1 x 960 GB M.2 NVME SSD
 Cooling: Air
 Other: None

Software

OS: Red Hat Enterprise Linux 9.6 (Plow)
 Kernel 5.14.0-570.12.1.el9_6.x86_64
 Compiler: C/C++: Version 2026.0 of Intel oneAPI DPC++/C++ Compiler for Linux;
 Fortran: Version 2026.0 of Intel Fortran Compiler for Linux
 Compiler Category: Vendor
 Firmware: Lenovo BIOS Version RSE127G 8.50 released May-2026
 File System: xfs
 System State: Run level 3 (multi-user)
 Base Pointers: 64-bit
 Peak Pointers: Not Applicable
 Other: tcmalloc memory allocator v2.18.1
 Power Management: BIOS and OS set to prefer performance at the cost of additional power usage



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Results Table

| Benchmark | Base | | | | | | | Peak | | | | | | |
|-----------------|--------|-------------|------------|-------------|-------------|------------|-------------|--------|---------|-------|---------|-------|---------|-------|
| | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio |
| 709.cactus_r | 480 | 315 | 1310 | 314 | 1310 | 314 | 1310 | | | | | | | |
| 722.palm_r | 480 | 855 | 741 | 855 | 741 | 853 | 743 | | | | | | | |
| 731.ascenc_r | 480 | 313 | 1290 | 314 | 1290 | 314 | 1290 | | | | | | | |
| 736.ocio_r | 480 | 458 | 916 | 462 | 908 | 460 | 913 | | | | | | | |
| 737.gmsh_r | 480 | 288 | 765 | 288 | 765 | 288 | 764 | | | | | | | |
| 748.flightdm_r | 480 | 289 | 1190 | 290 | 1190 | 290 | 1190 | | | | | | | |
| 749.fotonik3d_r | 480 | 1529 | 363 | 1526 | 364 | 1525 | 364 | | | | | | | |
| 765.roms_r | 480 | 2350 | 322 | 2353 | 321 | 2348 | 322 | | | | | | | |
| 766.femflow_r | 480 | 338 | 2080 | 338 | 2080 | 338 | 2080 | | | | | | | |
| 767.nest_r | 480 | 435 | 875 | 436 | 874 | 437 | 872 | | | | | | | |
| 772.marian_r | 480 | 512 | 1480 | 511 | 1480 | 510 | 1490 | | | | | | | |
| 782.lbm_r | 480 | 944 | 291 | 943 | 292 | 943 | 292 | | | | | | | |

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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/cpu2026-1.0.1-ic2026.0-rate/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.:

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General Notes (Continued)

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 configuration:

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

SNC set to SNC4

Misc set to Option4

DCU Streamer Prefetcher set to Disabled

sysinfo program /home/cpu2026-1.0.1-ic2026.0-rate/bin/sysinfo

Rev: 779ab21020787073335a329f3a45e2cd

running on localhost Thu May 28 17:56:28 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
11. Systemd service manager version: systemd 252 (252-51.e19)
12. Services, from systemctl list-unit-files
13. Linux kernel boot-time arguments, from /proc/cmdline
14. cpupower frequency-info
15. sysctl
16. /sys/kernel/mm/transparent_hugepage
17. /sys/kernel/mm/transparent_hugepage/khugepaged
18. OS release

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Platform Notes (Continued)

- 19. Disk information
- 20. /sys/devices/virtual/dmi/id
- 21. dmidecode
- 22. BIOS

```
-----
1. uname -srvm
Linux 5.14.0-570.12.1.el9_6.x86_64 #1 SMP PREEMPT_DYNAMIC Fri Apr 4 10:41:31 EDT 2025 x86_64
-----
```

```
2. w
17:56:28 up 3 min, 0 users, load average: 0.15, 0.08, 0.03
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) unlimited
data seg size                (kbytes, -d) unlimited
scheduling priority         (-e) 0
file size                    (blocks, -f) unlimited
pending signals              (-i) 4126188
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) 4126188
virtual memory               (kbytes, -v) unlimited
file locks                   (-x) unlimited
-----
```

```
5. sysinfo process ancestry
/usr/lib/systemd/systemd --switched-root --system --deserialize 31
sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups
sshd: root [priv]
sshd: root@notty
/bin/bash ./02.remote_local_SPECcpu_1.02.sh
sh Run503-compliant-ic2026.0-lin-sapphirerapids-ratefp-base-smt-on-20260429_revB.sh
-----
```

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Platform Notes (Continued)

```

runcpu --nobuild --iterations=3 --reportable --action validate --define default-platform-flags --copies 480
-c ic2026.0-sapphirerapids-cpu2026-1.0.1-rate-20260429_revB.cfg --define smt-on --define cores=240
--define physicalfirst --define invoke_with_interleave --define drop_caches --tune base -o all fprate
runcpu --nobuild --iterations 3 --reportable --action validate --define default-platform-flags --copies 480
--configfile ic2026.0-sapphirerapids-cpu2026-1.0.1-rate-20260429_revB.cfg --define smt-on --define
cores=240 --define physicalfirst --define invoke_with_interleave --define drop_caches --tune base
--output_format all --nopower --runmode rate --tune base --size refrate fprate --nopreenv --note-preenv
--logfile $SPEC/tmp/CPU2026.005/templogs/preenv.fprate.005.0.log --lognum 005.0 --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /home/cpu2026-1.0.1-ic2026.0-rate

```

```

6. /proc/cpuinfo
model name      : Intel(R) Xeon(R) Platinum 8490H
vendor_id      : GenuineIntel
cpu family     : 6
model          : 143
stepping       : 8
microcode      : 0x2b000661
bugs           : spectre_v1 spectre_v2 spec_store_bypass swapgs eibrs_pbrsb bhi
cpu cores     : 60
siblings       : 120
4 physical ids (chips)
480 processors (hardware threads)
physical id 0: core ids 0-59
physical id 1: core ids 0-59
physical id 2: core ids 0-59
physical id 3: core ids 0-59
physical id 0: apicids 0-119
physical id 1: apicids 128-247
physical id 2: apicids 256-375
physical id 3: apicids 384-503

```

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):                 480
On-line CPU(s) list:   0-479
Vendor ID:              GenuineIntel
BIOS Vendor ID:        Intel(R) Corporation

```

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Platform Notes (Continued)

```

Model name: Intel(R) Xeon(R) Platinum 8490H
BIOS Model name: Intel(R) Xeon(R) Platinum 8490H
CPU family: 6
Model: 143
Thread(s) per core: 2
Core(s) per socket: 60
Socket(s): 4
Stepping: 8
CPU(s) scaling MHz: 99%
CPU max MHz: 3500.0000
CPU min MHz: 800.0000
BogoMIPS: 3800.00
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
pdpelgb rdtscp lm constant_tsc art arch_perfmon pebs bts rep_good
nopl xtopology nonstop_tsc cpuid aperfmperf tsc_known_freq pni
pclmulqdq dtes64 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 bmil_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 vnni 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
Virtualization: VT-x
L1d cache: 11.3 MiB (240 instances)
L1i cache: 7.5 MiB (240 instances)
L2 cache: 480 MiB (240 instances)
L3 cache: 450 MiB (4 instances)
NUMA node(s): 16
NUMA node0 CPU(s): 0-14,240-254
NUMA node1 CPU(s): 15-29,255-269
NUMA node2 CPU(s): 30-44,270-284
NUMA node3 CPU(s): 45-59,285-299
NUMA node4 CPU(s): 60-74,300-314
NUMA node5 CPU(s): 75-89,315-329
NUMA node6 CPU(s): 90-104,330-344
NUMA node7 CPU(s): 105-119,345-359
NUMA node8 CPU(s): 120-134,360-374
NUMA node9 CPU(s): 135-149,375-389

```

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Platform Notes (Continued)

```

NUMA node10 CPU(s):          150-164,390-404
NUMA node11 CPU(s):          165-179,405-419
NUMA node12 CPU(s):          180-194,420-434
NUMA node13 CPU(s):          195-209,435-449
NUMA node14 CPU(s):          210-224,450-464
NUMA node15 CPU(s):          225-239,465-479
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;
                                PBRSE-eIBRS SW sequence; 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 | 11.3M | 12 | Data | 1 | 64 | 1 | 64 |
| L1i | 32K | 7.5M | 8 | Instruction | 1 | 64 | 1 | 64 |
| L2 | 2M | 480M | 16 | Unified | 2 | 2048 | 1 | 64 |
| L3 | 112.5M | 450M | 15 | Unified | 3 | 122880 | 1 | 64 |

8. numactl --hardware

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

```

available: 16 nodes (0-15)
node 0 cpus: 0-14,240-254
node 0 size: 64102 MB
node 0 free: 63498 MB
node 1 cpus: 15-29,255-269
node 1 size: 64504 MB
node 1 free: 64026 MB
node 2 cpus: 30-44,270-284
node 2 size: 64504 MB
node 2 free: 64030 MB
node 3 cpus: 45-59,285-299
node 3 size: 64504 MB
node 3 free: 64047 MB
node 4 cpus: 60-74,300-314
node 4 size: 64504 MB

```

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Platform Notes (Continued)

```

node 4 free: 64035 MB
node 5 cpus: 75-89,315-329
node 5 size: 64504 MB
node 5 free: 64009 MB
node 6 cpus: 90-104,330-344
node 6 size: 64504 MB
node 6 free: 63962 MB
node 7 cpus: 105-119,345-359
node 7 size: 64504 MB
node 7 free: 64015 MB
node 8 cpus: 120-134,360-374
node 8 size: 64504 MB
node 8 free: 64045 MB
node 9 cpus: 135-149,375-389
node 9 size: 64458 MB
node 9 free: 63909 MB
node 10 cpus: 150-164,390-404
node 10 size: 64504 MB
node 10 free: 64011 MB
node 11 cpus: 165-179,405-419
node 11 size: 64504 MB
node 11 free: 64006 MB
node 12 cpus: 180-194,420-434
node 12 size: 64504 MB
node 12 free: 63812 MB
node 13 cpus: 195-209,435-449
node 13 size: 64504 MB
node 13 free: 64042 MB
node 14 cpus: 210-224,450-464
node 14 size: 64504 MB
node 14 free: 63989 MB
node 15 cpus: 225-239,465-479
node 15 size: 64477 MB
node 15 free: 63837 MB
node distances:
node    0    1    2    3    4    5    6    7    8    9   10   11   12   13   14   15
  0:   10   12   12   12   21   21   21   21   21   21   21   21   21   21   21   21
  1:   12   10   12   12   21   21   21   21   21   21   21   21   21   21   21   21
  2:   12   12   10   12   21   21   21   21   21   21   21   21   21   21   21   21
  3:   12   12   12   10   21   21   21   21   21   21   21   21   21   21   21   21
  4:   21   21   21   21   10   12   12   12   21   21   21   21   21   21   21   21
  5:   21   21   21   21   12   10   12   12   21   21   21   21   21   21   21   21
  6:   21   21   21   21   12   12   10   12   21   21   21   21   21   21   21   21
  7:   21   21   21   21   12   12   12   10   21   21   21   21   21   21   21   21
  8:   21   21   21   21   21   21   21   21   10   12   12   12   21   21   21   21
  9:   21   21   21   21   21   21   21   21   12   10   12   12   21   21   21   21
 10:   21   21   21   21   21   21   21   21   12   12   10   12   21   21   21   21

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Platform Notes (Continued)

| | | | | | | | | | | | | | | | | |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 11: | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 12 | 12 | 12 | 10 | 21 | 21 | 21 | 21 |
| 12: | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 10 | 12 | 12 | 12 |
| 13: | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 12 | 10 | 12 | 12 |
| 14: | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 12 | 12 | 10 | 12 |
| 15: | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 12 | 12 | 12 | 10 |

```

9. /proc/meminfo
   MemTotal:          1056352088 kB

```

```

10. who -r
    run-level 3 May 28 17:53

```

```

11. Systemd service manager version: systemd 252 (252-51.e19)
    Default Target   Status
    multi-user       running

```

```

12. Services, from systemctl list-unit-files
    STATE          UNIT FILES
    enabled        NetworkManager NetworkManager-dispatcher NetworkManager-wait-online auditd crond
                   dbus-broker firewalld getty@ insights-client-boot irqbalance kdump low-memory-monitor
                   lvm2-monitor mdmonitor microcode nis-domainname nvme-fc-boot-connections rhsmcertd rsyslog
                   rtkit-daemon selinux-autorelabel-mark sshd sssd systemd-boot-update
                   systemd-network-generator systemd-pstore udisks2 upower
    enabled-runtime systemd-remount-fs
    disabled       blk-availability canberra-system-bootup canberra-system-shutdown
                   canberra-system-shutdown-reboot console-getty cpupower debug-shell dnf-system-upgrade
                   kvm_stat lvm-devices-import man-db-restart-cache-update nftables nvmmf-autoconnect pesign
                   rdisc rhcd rhsm rhsm-facts rpmdb-rebuild selinux-check-proper-disable serial-getty@
                   sshd-keygen@ systemd-boot-check-no-failures systemd-sysext
    indirect       sssd-autofs sssd-kcm sssd-nss sssd-pac sssd-pam sssd-ssh sssd-sudo systemd-sysupdate
                   systemd-sysupdate-reboot

```

```

13. Linux kernel boot-time arguments, from /proc/cmdline
    BOOT_IMAGE=(hd3,gpt2)/vmlinuz-5.14.0-570.12.1.e19_6.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

```

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Platform Notes (Continued)

analyzing CPU 341:

current policy: frequency should be within 800 MHz and 3.50 GHz.

The governor "performance" may decide which speed to use within this range.

boost state support:

Supported: yes

Active: yes

15. 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 | 60 |
| vm.watermark_boost_factor | 15000 |
| vm.watermark_scale_factor | 10 |
| vm.zone_reclaim_mode | 0 |

16. /sys/kernel/mm/transparent_hugepage

| | | | | | |
|----------------|----------|-------------|---------------|-----------|------------|
| defrag | always | defer | defer+madvise | [madvise] | never |
| enabled | [always] | madvise | never | | |
| hpage_pmd_size | 2097152 | | | | |
| shmem_enabled | always | within_size | advise | [never] | deny force |

17. /sys/kernel/mm/transparent_hugepage/khugepaged

| | |
|-----------------------|-------|
| alloc_sleep_millisecs | 60000 |
| defrag | 1 |
| max_ptes_none | 511 |
| max_ptes_shared | 256 |
| max_ptes_swap | 64 |
| pages_to_scan | 4096 |
| scan_sleep_millisecs | 10000 |

(Continued on next page)



SPEC CPU®2026 Floating Point Rate Result

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SPECrate®2026_fp_base = 822

ThinkSystem SR850 V3
(1.90 GHz, Intel Xeon Platinum 8490H)

SPECrate®2026_fp_peak = Not Run

CPU2026 License: 9017

Test Date: May-2026

Test Sponsor: Lenovo Global Technology

Hardware Availability: Jun-2023

Tested by: Lenovo Global Technology

Software Availability: Apr-2026

Platform Notes (Continued)

18. OS release

```

From /etc/*-release /etc/*-version
os-release      Red Hat Enterprise Linux 9.6 (Plow)
redhat-release  Red Hat Enterprise Linux release 9.6 (Plow)
system-release  Red Hat Enterprise Linux release 9.6 (Plow)

```

19. Disk information

```

SPEC is set to: /home/cpu2026-1.0.1-ic2026.0-rate
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/mapper/rhel-home xfs   819G  67G  752G  9% /home

```

20. /sys/devices/virtual/dmi/id

```

Vendor:          Lenovo
Product:         ThinkSystem SR850 V3
Product Family: ThinkSystem
Serial:          None

```

21. 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:
  32x SK Hynix HMC88AEBRA168N 32 GB 2 rank 4800

```

22. BIOS

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

```

BIOS Vendor:      Lenovo
BIOS Version:     RSE127G-8.50
BIOS Date:        05/15/2026
BIOS Revision:    8.50
Firmware Revision: 8.10

```

Compiler Version Notes

```

=====
C      | 782.lbm_r(base)
=====

```

```

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
Version 2026.0.0 Build 20260331

```

(Continued on next page)



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Compiler Version Notes (Continued)

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```

=====
C++      | 731.astcenc_r(base) 736.ocio_r(base) 748.flightdm_r(base)
          | 766.femflow_r(base) 767.nest_r(base) 772.marian_r(base)
=====

```

```

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   | 709.cactus_r(base) 737.gmsh_r(base)
=====

```

```

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64,
Version 2026.0.0 Build 20260331
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=====

```

```

=====
Fortran  | 722.palm_r(base) 749.fotonik3d_r(base) 765.roms_r(base)
=====

```

```

Intel(R) Fortran 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

Fortran benchmarks:

ifx

Benchmarks using both C and C++:

icpx icx



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Base Portability Flags

737.gmsh_r: -fno-associative-math

Base Optimization Flags

C benchmarks:

```
-m64 -std=c18 -Wl,-z,muldefs -Wl,-plugin-opt=-inline-threshold=1500
-xsapphirerapids -mprefer-vector-width=512 -O3 -ffp-model=fast -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-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
-xsapphirerapids -mprefer-vector-width=512 -O3 -ffp-model=fast -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-L/usr/local/tcmalloc-2.18.1/lib -ltcmalloc_minimal
```

Fortran benchmarks:

```
-m64 -stand f18 -Wl,-z,muldefs -Wl,-plugin-opt=-inline-threshold=1500
-xsapphirerapids -mprefer-vector-width=512 -O3 -ffp-model=fast -flto
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-nostandard-realloc-lhs -align array32byte -auto
-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 -xsapphirerapids
-mprefer-vector-width=512 -O3 -ffp-model=fast -flto -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4
-L/usr/local/tcmalloc-2.18.1/lib -ltcmalloc_minimal
```

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

<http://www.spec.org/cpu2026/results/flags/Lenovo-Platform-SPECcpu2026-Flags-V1.2-Eaglestream-AD.html>
<http://www.spec.org/cpu2026/results/flags/Intel-ic2026-official-linux64-v1.1.html>

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

<http://www.spec.org/cpu2026/results/flags/Lenovo-Platform-SPECcpu2026-Flags-V1.2-Eaglestream-AD.xml>
<http://www.spec.org/cpu2026/results/flags/Intel-ic2026-official-linux64-v1.1.xml>



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