



SPEC CPU®2017 Integer Rate Result

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Dell Inc.

SPECrate®2017_int_base = 1810

PowerEdge R770AP (Intel Xeon 6952P)

SPECrate®2017_int_peak = 1830

CPU2017 License: 6573

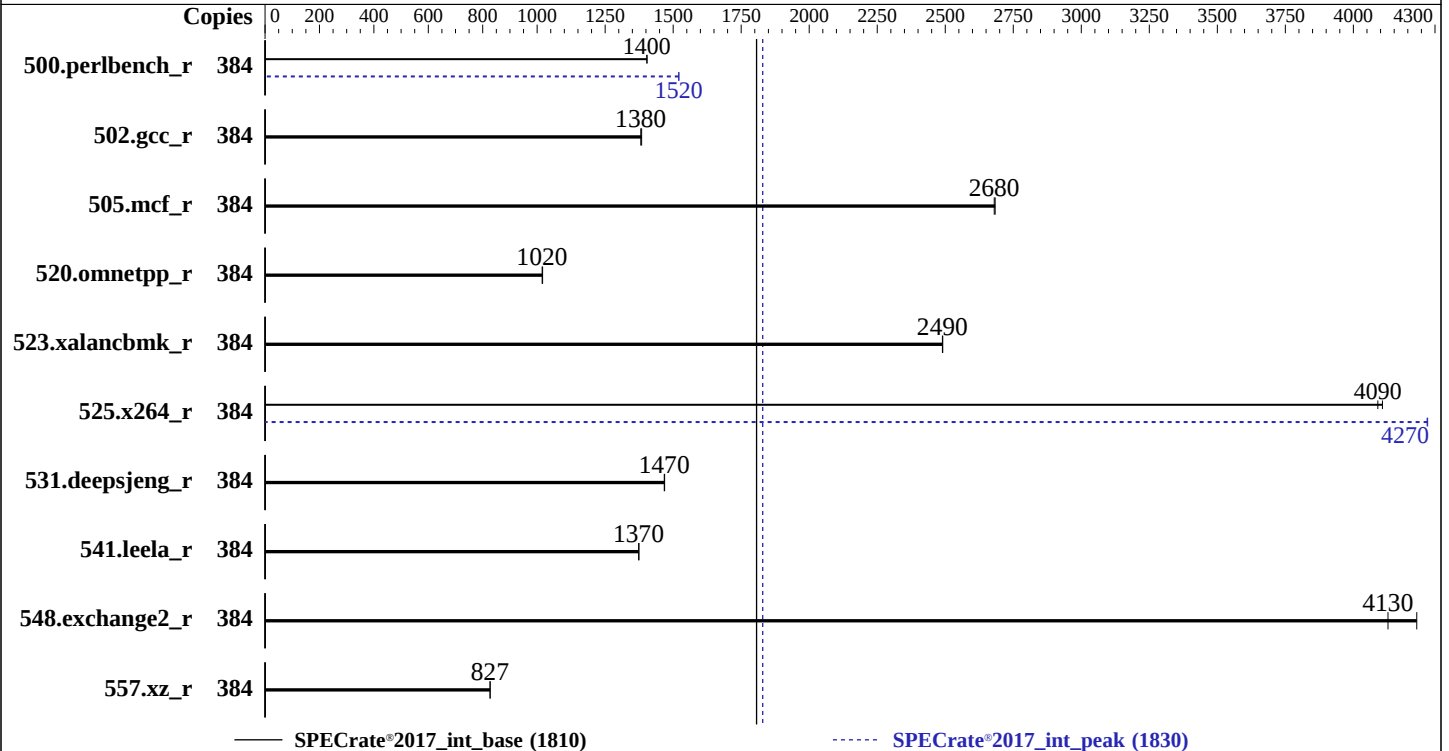
Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: Nov-2025

Hardware Availability: Nov-2025

Software Availability: Aug-2025



Hardware

CPU Name: Intel Xeon 6952P
Max MHz: 3900
Nominal: 2100
Enabled: 192 cores, 2 chips, 2 threads/core
Orderable: 1,2 chips
Cache L1: 64 KB I + 48 KB D on chip per core
L2: 2 MB I+D on chip per core
L3: 480 MB I+D on chip per chip
Other: None
Memory: 768 GB (24 x 32 GB 2Rx8 PC5-6400B-R)
Storage: 190 GB on tmpfs
Other: CPU Cooling: Air

Software

OS: SUSE Linux Enterprise Server 16.0
6.12.0-160000.20-default
Compiler: C/C++: Version 2025.2 of Intel oneAPI DPC++/C++
Compiler for Linux;
Fortran: Version 2025.2 of Intel Fortran Compiler
for Linux;
Parallel: No
Firmware: Version 1.1.5 released Oct-2025
File System: tmpfs
System State: Run level 5 (graphical multi-user)
Base Pointers: 64-bit
Peak Pointers: 64-bit
Other: None
Power Management: BIOS 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
500.perlbench_r	384	<u>436</u>	<u>1400</u>	435	1400			384	<u>402</u>	<u>1520</u>	402	1520		
502.gcc_r	384	<u>394</u>	<u>1380</u>	393	1380			384	<u>394</u>	<u>1380</u>	393	1380		
505.mcf_r	384	<u>232</u>	<u>2680</u>	231	2680			384	<u>232</u>	<u>2680</u>	231	2680		
520.omnetpp_r	384	494	1020	<u>495</u>	<u>1020</u>			384	494	1020	<u>495</u>	<u>1020</u>		
523.xalancbmk_r	384	163	2490	<u>163</u>	<u>2490</u>			384	163	2490	<u>163</u>	<u>2490</u>		
525.x264_r	384	164	4110	<u>164</u>	<u>4090</u>			384	157	4270	<u>157</u>	<u>4270</u>		
531.deepsjeng_r	384	<u>300</u>	<u>1470</u>	300	1470			384	<u>300</u>	<u>1470</u>	300	1470		
541.leela_r	384	<u>463</u>	<u>1370</u>	463	1370			384	<u>463</u>	<u>1370</u>	463	1370		
548.exchange2_r	384	238	4230	<u>244</u>	<u>4130</u>			384	238	4230	<u>244</u>	<u>4130</u>		
557.xz_r	384	<u>502</u>	<u>827</u>	501	827			384	<u>502</u>	<u>827</u>	501	827		

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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 =

"/mnt/ramdisk/cpu2017-1.1.9-ic2025.2/lib/intel64:/mnt/ramdisk/cpu2017-1.1.9-ic2025.2/lib/ia32:/mnt/ramdisk/cpu2017-1.1.9-ic2025.2/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
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>

Benchmark run from a 190 GB ramdisk created with the cmd: "mount -t tmpfs -o size=190G tmpfs /mnt/ramdisk"



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Platform Notes

BIOS Settings:

Sub NUMA Cluster : Enabled
SST-Performance Profile : Operating Point 2 | P1: 2.5 GHz, TDP:400w, Core Count:96

System Profile : Custom
CPU Power Management : Maximum Performance
C-States : Autonomous
Latency Optimized Mode : Enabled
Energy Efficient Policy : Performance

Sysinfo program /mnt/ramdisk/cpu2017-1.1.9-ic2025.2/bin/sysinfo
Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197
running on NDN1035-R770AP Sat Nov 15 16:09:19 2025

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

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1. uname -a
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3. Username
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9. /proc/meminfo
10. Systemd service manager version: systemd 257 (257.7+suse.19.ga0dfd5de4c)
11. Services, from systemctl list-unit-files
12. Linux kernel boot-time arguments, from /proc/cmdline
13. cpupower frequency-info
14. sysctl
15. /sys/kernel/mm/transparent_hugepage
16. /sys/kernel/mm/transparent_hugepage/khugepaged
17. OS release
18. Disk information
19. /sys/devices/virtual/dmi/id
20. dmidecode
21. BIOS

1. uname -a
Linux NDN1035-R770AP 6.12.0-160000.20-default #1 SMP PREEMPT_DYNAMIC Mon Jul 21 10:20:07 UTC 2025 (b00eabe)
x86_64 x86_64 x86_64 GNU/Linux

2. w
16:09:19 up 2 min, 1 user, load average: 8.32, 5.85, 2.42
USER TTY FROM LOGIN@ IDLE JCPU PCPU WHAT
root tty1 - 16:07 6.00s 0.97s ? /bin/bash
/home/DellFiles/bin/Intel/dell-run-speccpu.sh rate --define DL-VERS=6.4_T17 --output_format html,pdf,txt

3. Username
From environment variable \$USER: root

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Platform Notes (Continued)

```
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) 3092901
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) 3092901
virtual memory (kbytes, -v) unlimited
file locks (-x) unlimited

-----

5. sysinfo process ancestry
/usr/lib/systemd/systemd --switched-root --system --deserialize=47
login -- root
-bash
/bin/bash /home/DellFiles/bin/DELL_rate.sh
/bin/bash /home/DellFiles/bin/dell-run-main.sh rate
/bin/bash /home/DellFiles/bin/dell-run-main.sh rate
/bin/bash /home/DellFiles/bin/Intel/dell-run-speccpu.sh rate --define DL-VERS=6.4_T17 --output_format
html, pdf, txt
/bin/bash /home/DellFiles/bin/Intel/dell-run-speccpu.sh rate --define DL-VERS=6.4_T17 --output_format
html, pdf, txt
runcpu --nobuild --action validate --define default-platform-flags --define numcopies=384 -c
ic2025.2-linux64-graniterapids-rate-20250605.cfg --define smt-on --define cores=192 --define physicalfirst
--define invoke_with_interleave --define drop_caches --tune base,peak -o all --iterations 2 --define
DL-VERS=6.4_T17 --output_format html, pdf, txt intrate
runcpu --nobuild --action validate --define default-platform-flags --define numcopies=384 --configfile
ic2025.2-linux64-graniterapids-rate-20250605.cfg --define smt-on --define cores=192 --define physicalfirst
--define invoke_with_interleave --define drop_caches --tune base,peak --output_format all --iterations 2
--define DL-VERS=6.4_T17 --output_format html, pdf, txt --nopower --runmode rate --tune base:peak --size
refrate intrate --nopreenv --note-preenv --logfile $SPEC/tmp/CPU2017.001/temlogs/preenv.intrate.001.0.log
--lognum 001.0 --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /mnt/ramdisk/cpu2017-1.1.9-ic2025.2

-----

6. /proc/cpuinfo
model name      : Intel(R) Xeon(R) 6952P
vendor_id      : GenuineIntel
cpu family     : 6
model          : 173
stepping       : 1
microcode      : 0x10003f3
bugs           : spectre_v1 spectre_v2 spec_store_bypass swapgs bhi spectre_v2_user
cpu cores      : 96
siblings       : 192
2 physical ids (chips)
384 processors (hardware threads)
physical id 0: core ids 0-31,64-95,128-159
physical id 1: core ids 0-31,64-95,128-159
physical id 0: apicids 0-63,128-191,256-319
```

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Platform Notes (Continued)

physical id 1: apicids 512-575,640-703,768-831

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 2.41.1:

```
Architecture:          x86_64
CPU op-mode(s):        32-bit, 64-bit
Address sizes:          52 bits physical, 57 bits virtual
Byte Order:             Little Endian
CPU(s):                 384
On-line CPU(s) list:    0-383
Vendor ID:              GenuineIntel
Model name:             Intel(R) Xeon(R) 6952P
CPU family:             6
Model:                  173
Thread(s) per core:     2
Core(s) per socket:     96
Socket(s):              2
Stepping:               1
BogoMIPS:               5000.00
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
                        avx512_bf16 wbnoinvd dtherm ida arat pln pts hfi vnni avx512vbmi
                        umip pku ospke waitpkg avx512_vbmi2 gfni vaes vpclmulqdq
                        avx512_vnni avx512_bitalg 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:              9 MiB (192 instances)
L1i cache:              12 MiB (192 instances)
L2 cache:               384 MiB (192 instances)
L3 cache:               960 MiB (2 instances)
NUMA node(s):           6
NUMA node0 CPU(s):      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, 192, 194, 196, 198, 200, 202, 204, 206, 208, 210, 2
                        12, 214, 216, 218, 220, 222, 224, 226, 228, 230, 232, 234, 236, 238, 240, 242, 244
                        , 246, 248, 250, 252, 254
NUMA node1 CPU(s):      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, 256, 258, 260, 262, 264, 26
                        6, 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
NUMA node2 CPU(s):      128, 130, 132, 134, 136, 138, 140, 142, 144, 146, 148, 150, 152, 154, 156, 158, 16
                        0, 162, 164, 166, 168, 170, 172, 174, 176, 178, 180, 182, 184, 186, 188, 190, 320,
                        322, 324, 326, 328, 330, 332, 334, 336, 338, 340, 342, 344, 346, 348, 350, 352, 35
```

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Platform Notes (Continued)

NUMA node3 CPU(s): 4, 356, 358, 360, 362, 364, 366, 368, 370, 372, 374, 376, 378, 380, 382
1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47
, 49, 51, 53, 55, 57, 59, 61, 63, 193, 195, 197, 199, 201, 203, 205, 207, 209, 211, 2
13, 215, 217, 219, 221, 223, 225, 227, 229, 231, 233, 235, 237, 239, 241, 243, 245
, 247, 249, 251, 253, 255

NUMA node4 CPU(s): 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105,
107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 257, 259, 261, 263, 265, 267,
269, 271, 273, 275, 277, 279, 281, 283, 285, 287, 289, 291, 293, 295, 297, 299,
301, 303, 305, 307, 309, 311, 313, 315, 317, 319

NUMA node5 CPU(s): 129, 131, 133, 135, 137, 139, 141, 143, 145, 147, 149, 151, 153, 155, 157, 159, 16
1, 163, 165, 167, 169, 171, 173, 175, 177, 179, 181, 183, 185, 187, 189, 191, 321,
323, 325, 327, 329, 331, 333, 335, 337, 339, 341, 343, 345, 347, 349, 351, 353, 35
5, 357, 359, 361, 363, 365, 367, 369, 371, 373, 375, 377, 379, 381, 383

Vulnerability Gather data sampling: Not affected
Vulnerability Indirect target selection: 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;
PBRSE-eIBRS Not affected; BHI BHI_DIS_S
Vulnerability Srbds: Not affected
Vulnerability Tsa: 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	9M	12	Data	1	64	1	64
L1i	64K	12M	16	Instruction	1	64	1	64
L2	2M	384M	16	Unified	2	2048	1	64
L3	480M	960M	16	Unified	3	491520	1	64

8. numactl --hardware

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

available: 6 nodes (0-5)

node 0 cpus:

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, 192, 194, 196, 198,
200, 202, 204, 206, 208, 210, 212, 214, 216, 218, 220, 222, 224, 226, 228, 230, 232, 234, 236, 238, 240, 242, 244, 246, 248, 250, 252
, 254

node 0 size: 128568 MB

node 0 free: 115260 MB

node 1 cpus:

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, 1
26, 256, 258, 260, 262, 264, 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

node 1 size: 129000 MB

node 1 free: 128693 MB

node 2 cpus:

128, 130, 132, 134, 136, 138, 140, 142, 144, 146, 148, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174, 176, 178, 180
, 182, 184, 186, 188, 190, 320, 322, 324, 326, 328, 330, 332, 334, 336, 338, 340, 342, 344, 346, 348, 350, 352, 354, 356, 358, 360, 36
2, 364, 366, 368, 370, 372, 374, 376, 378, 380, 382

node 2 size: 129000 MB

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Platform Notes (Continued)

```
node 2 free: 128691 MB
node 3 cpus:
1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 193, 195, 197, 199,
201, 203, 205, 207, 209, 211, 213, 215, 217, 219, 221, 223, 225, 227, 229, 231, 233, 235, 237, 239, 241, 243, 245, 247, 249, 251, 253
, 255
node 3 size: 128959 MB
node 3 free: 128674 MB
node 4 cpus:
65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 1
27, 129, 131, 133, 135, 137, 139, 141, 143, 145, 147, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175, 177, 179, 181
, 183, 185, 187, 189, 191, 193, 195, 197, 199, 201, 203, 205, 207, 209, 211, 213, 215, 217, 219, 221, 223, 225, 227, 229, 231, 233, 235, 237, 239, 241, 243, 245, 247, 249, 251, 253
, 255
node 4 size: 129000 MB
node 4 free: 128693 MB
node 5 cpus:
129, 131, 133, 135, 137, 139, 141, 143, 145, 147, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175, 177, 179, 181
, 183, 185, 187, 189, 191, 193, 195, 197, 199, 201, 203, 205, 207, 209, 211, 213, 215, 217, 219, 221, 223, 225, 227, 229, 231, 233, 235, 237, 239, 241, 243, 245, 247, 249, 251, 253
, 255
node 5 size: 128922 MB
node 5 free: 128631 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:          792014292 kB
```

'who -r' did not return a run level

```
-----
10. Systemd service manager version: systemd 257 (257.7+suse.19.ga0dfd5de4c)
Default Target    Status
graphical         running
```

```
-----
11. Services, from systemctl list-unit-files
STATE             UNIT FILES
enabled           NetworkManager NetworkManager-dispatcher NetworkManager-wait-online audit-rules auditd
                  chronyd dbus-broker firewalld getty@ irqbalance issue-generator kbdsettings klog
                  lvm2-monitor nvme-fc-boot-connections nvme-fc-autoconnect rollback rsyslog smartd
                  soft-reboot-cleanups systemd-pstore wpa_supplicant wtmpdb-update-boot
enabled-runtime   systemd-remount-fs
disabled          blk-availability boot-sysctl ca-certificates ca-certificates-setup chrony-wait
                  console-getty debug-shell dnsmasq gpm grub2-once hwloc-dump-hwdata issue-add-ssh-keys
                  kernel-sysctl kexec-load lastlog2-import lunmask lvm-devices-import man-db-create
                  multipathd nftables nis-domainname rpmconfigcheck rsyncd serial-getty@
                  setup-systemd-proxy-env smartd_generate_opts snmpd snmptrapd sshd
                  systemd-boot-check-no-failures systemd-confext systemd-network-generator systemd-sysext
                  systemd-time-wait-sync systemd-timesyncd systemd-udev-load-credentials udisks2
indirect          wpa_supplicant@
                  systemd-userdbd
```

```
-----
12. Linux kernel boot-time arguments, from /proc/cmdline
BOOT_IMAGE=/boot/vmlinuz-6.12.0-160000.20-default
```

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Platform Notes (Continued)

```
root=UUID=e849977e-7169-4917-b3d0-cfe8c813bf4d
mitigations=auto
quiet
security=selinux
selinux=1
```

13. cpupower frequency-info

```
analyzing CPU 0:
  Unable to determine current policy
  boost state support:
    Supported: yes
    Active: yes
```

14. 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
```

15. /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
```

16. /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
```

17. OS release

```
From /etc/*-release /etc/*-version
os-release SUSE Linux Enterprise Server 16.0
```

18. Disk information

(Continued on next page)



SPEC CPU®2017 Integer Rate Result

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Dell Inc.

SPECrate®2017_int_base = 1810

PowerEdge R770AP (Intel Xeon 6952P)

SPECrate®2017_int_peak = 1830

CPU2017 License: 6573

Test Sponsor: Dell Inc.

Tested by: Dell Inc.

Test Date: Nov-2025

Hardware Availability: Nov-2025

Software Availability: Aug-2025

Platform Notes (Continued)

SPEC is set to: /mnt/ramdisk/cpu2017-1.1.9-ic2025.2

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
tmpfs	tmpfs	190G	5.8G	185G	4%	/mnt/ramdisk

19. /sys/devices/virtual/dmi/id

Vendor: Dell Inc.
Product: PowerEdge R770AP
Product Family: PowerEdge
Serial: NDN1035

20. 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:

15x 002C0632002C MTC20F2085S1RC64BD2 MWFF 32 GB 2 rank 6400
9x 002C069D002C MTC20F2085S1RC64BD2 QSFF 32 GB 2 rank 6400

21. BIOS

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

BIOS Vendor: Dell Inc.
BIOS Version: 1.1.5
BIOS Date: 10/22/2025
BIOS Revision: 1.1

Compiler Version Notes

C | 500.perlbench_r(base, peak) 502.gcc_r(base, peak) 505.mcf_r(base, peak) 525.x264_r(base, peak)
| 557.xz_r(base, peak)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2025.2.0 Build 20250605
Copyright (C) 1985-2025 Intel Corporation. All rights reserved.

C++ | 520.omnetpp_r(base, peak) 523.xalancbmk_r(base, peak) 531.deepsjeng_r(base, peak)
| 541.leela_r(base, peak)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2025.2.0 Build 20250605
Copyright (C) 1985-2025 Intel Corporation. All rights reserved.

Fortran | 548.exchange2_r(base, peak)

Intel(R) Fortran Compiler for applications running on Intel(R) 64, Version 2025.2.0 Build 20250605
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Base Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Fortran benchmarks:

ifx

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 -xgraniterapids -O3 -ffast-math

-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4

-L/home/specdev/intel-compilers/compiler/2025.2/lib -lqkmallo

C++ benchmarks:

-w -std=c++14 -m64 -Wl,-z,muldefs -xgraniterapids -O3 -ffast-math

-flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4

-fdelayed-template-parsing

-L/home/specdev/intel-compilers/compiler/2025.2/lib -lqkmallo

Fortran benchmarks:

-w -m64 -Wl,-z,muldefs -xgraniterapids -O3 -ffast-math -flto

-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4

-nostandard-realloc-lhs -align array32byte -auto

-L/home/specdev/intel-compilers/compiler/2025.2/lib -lqkmallo



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Tested by: Dell Inc.

Test Date: Nov-2025

Hardware Availability: Nov-2025

Software Availability: Aug-2025

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:

```
500.perlbench_r: -w -std=c11 -m64 -Wl,-z,muldefs
-fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xCORE-AVX2(pass 1)
-flto -Ofast -xCORE-AVX512 -ffast-math -mfpmath=sse
-funroll-loops -qopt-mem-layout-trans=4
-fno-strict-overflow -fno-strict-aliasing
-L/home/specdev/intel-compilers/compiler/2025.2/lib
-lqkmallocc
```

502.gcc_r: basepeak = yes

505.mcf_r: basepeak = yes

```
525.x264_r: -w -std=c11 -m64 -Wl,-z,muldefs -xgraniterapids -Ofast
-ffast-math -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -fno-alias
-L/home/specdev/intel-compilers/compiler/2025.2/lib
-lqkmallocc
```

557.xz_r: basepeak = yes

C++ benchmarks:

520.omnetpp_r: basepeak = yes

(Continued on next page)



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Software Availability: Aug-2025

Peak Optimization Flags (Continued)

523.xalancbmk_r: basepeak = yes

531.deepsjeng_r: basepeak = yes

541.leela_r: basepeak = yes

Fortran benchmarks:

548.exchange2_r: basepeak = yes

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

<http://www.spec.org/cpu2017/flags/Intel-ic2025-official-linux64.html>

<http://www.spec.org/cpu2017/flags/Dell-Platform-Flags-PowerEdge-Intel-Xeon-v1.18a.html>

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

<http://www.spec.org/cpu2017/flags/Intel-ic2025-official-linux64.xml>

<http://www.spec.org/cpu2017/flags/Dell-Platform-Flags-PowerEdge-Intel-Xeon-v1.18a.xml>

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