



# SPEC CPU®2017 Integer Speed Result

Copyright 2017-2026 Standard Performance Evaluation Corporation

## Cisco Systems

Cisco UCS C220 M8 (Intel Xeon 6787P 2.0 GHz processor)

SPECspeed®2017\_int\_base = 14.0

SPECspeed®2017\_int\_peak = 14.2

CPU2017 License: 9019

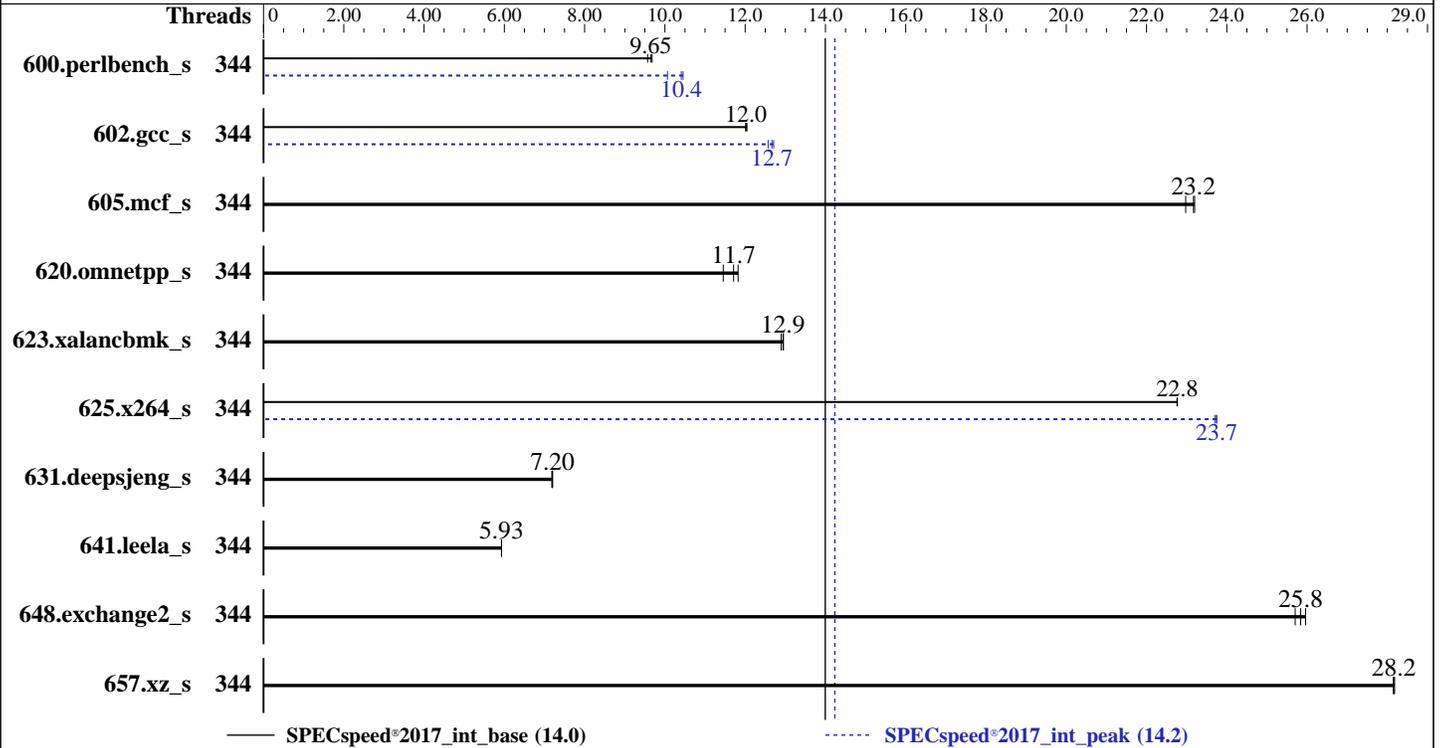
Test Sponsor: Cisco Systems

Tested by: Cisco Systems

Test Date: Nov-2025

Hardware Availability: Feb-2025

Software Availability: Jun-2024



### Hardware

CPU Name: Intel Xeon 6787P  
 Max MHz: 3800  
 Nominal: 2000  
 Enabled: 172 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: 336 MB I+D on chip per chip  
 Other: None  
 Memory: 1 TB (16 x 64 GB 2Rx4 PC5-6400B-R)  
 Storage: 1 x 222 GB NVME SSD  
 Other: CPU Cooling: Air

### Software

OS: SUSE Linux Enterprise Server 15 SP6  
 6.4.0-150600.21-default  
 Compiler: C/C++: Version 2024.1 of Intel oneAPI DPC++/C++  
 Compiler for Linux;  
 Fortran: Version 2024.1 of Intel Fortran Compiler  
 for Linux;  
 Parallel: Yes  
 Firmware: Version 4.3.6b released Apr-2025  
 File System: btrfs  
 System State: Run level 3 (multi-user)  
 Base Pointers: 64-bit  
 Peak Pointers: 64-bit  
 Other: jemalloc memory allocator V5.0.1  
 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						
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
600.perlbench_s	344	<b>184</b>	<b>9.65</b>	185	9.57	183	9.68	344	170	10.5	176	10.1	<b>171</b>	<b>10.4</b>
602.gcc_s	344	331	12.0	<b>331</b>	<b>12.0</b>	331	12.0	344	<b>314</b>	<b>12.7</b>	317	12.6	313	12.7
605.mcf_s	344	205	23.0	<b>204</b>	<b>23.2</b>	204	23.2	344	205	23.0	<b>204</b>	<b>23.2</b>	204	23.2
620.omnetpp_s	344	<b>139</b>	<b>11.7</b>	142	11.5	138	11.8	344	<b>139</b>	<b>11.7</b>	142	11.5	138	11.8
623.xalancbmk_s	344	110	12.9	<b>109</b>	<b>12.9</b>	109	13.0	344	110	12.9	<b>109</b>	<b>12.9</b>	109	13.0
625.x264_s	344	77.5	22.8	<b>77.5</b>	<b>22.8</b>	77.5	22.8	344	<b>74.3</b>	<b>23.7</b>	74.3	23.7	74.4	23.7
631.deepsjeng_s	344	199	7.18	199	7.20	<b>199</b>	<b>7.20</b>	344	199	7.18	199	7.20	<b>199</b>	<b>7.20</b>
641.leela_s	344	<b>288</b>	<b>5.93</b>	288	5.93	288	5.93	344	<b>288</b>	<b>5.93</b>	288	5.93	288	5.93
648.exchange2_s	344	113	26.0	<b>114</b>	<b>25.8</b>	114	25.7	344	113	26.0	<b>114</b>	<b>25.8</b>	114	25.7
657.xz_s	344	220	28.1	219	28.2	<b>220</b>	<b>28.2</b>	344	220	28.1	219	28.2	<b>220</b>	<b>28.2</b>

SPECspeed®2017\_int\_base = **14.0**

SPECspeed®2017\_int\_peak = **14.2**

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:  
KMP\_AFFINITY = "granularity=fine,scatter"  
LD\_LIBRARY\_PATH = "/home/cpu2017/lib/intel64:/home/cpu2017/je5.0.1-64"  
MALLOC\_CONF = "retain:true"  
OMP\_STACKSIZE = "192M"

## General Notes

Binaries compiled on a system with 2x Intel Xeon Platinum 8280M CPU + 384GB RAM memory using Red Hat Enterprise Linux 8.4  
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.

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## General Notes (Continued)

Yes: The test sponsor attests, as of date of publication, that CVE-2017-5715 (Spectre variant 2) is mitigated in the system as tested and documented.

jemalloc, a general purpose malloc implementation built with the RedHat Enterprise 7.5, and the system compiler gcc 4.8.5 sources available from jemalloc.net or <https://github.com/jemalloc/jemalloc/releases>

## Platform Notes

BIOS settings:

Hardware prefetcher set to Enabled  
Adjacent cache line prefetcher set to Enabled  
Patrol scrub set to Disabled  
XPT prefetch set to Auto  
LLC prefetch set to Enabled  
Enhanced CPU performance set to Auto

Sysinfo program /home/cpu2017/bin/sysinfo  
Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197  
running on localhost Wed Nov 26 19:42:53 2025

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 254 (254.10+suse.84.ge8d77af424)
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. tuned-adm active
17. sysctl
18. /sys/kernel/mm/transparent\_hugepage
19. /sys/kernel/mm/transparent\_hugepage/khugepaged
20. OS release
21. Disk information
22. /sys/devices/virtual/dmi/id
23. dmidecode
24. BIOS

-----  
1. uname -a  
Linux localhost 6.4.0-150600.21-default #1 SMP PREEMPT\_DYNAMIC Thu May 16 11:09:22 UTC 2024 (36c1e09)  
x86\_64 x86\_64 x86\_64 GNU/Linux  
-----

2. w  
-----

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### Platform Notes (Continued)

```

19:42:53 up 33 min, 1 user, load average: 0.12, 0.03, 0.01
USER      TTY      FROM          LOGIN@      IDLE        JCPU        PCPU        WHAT
root      pts/0    10.29.148.194 19:42      10.00s     1.27s     0.00s     -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) 4122568
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) 4122568
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@pts/0
-bash
-bash
runcpu --nobuild -n 3 --action validate --define default-platform-flags --configfile
ic2024.1-lin-sapphirerapids-speed-20240308.cfg --define cores=344 --tune base,peak --output_format all
--define intspeedaffinity --define drop_caches --nopower --runmode speed --tune base,peak --size refspeed
intspeed
runcpu --nobuild --iterations 3 --action validate --define default-platform-flags --configfile
ic2024.1-lin-sapphirerapids-speed-20240308.cfg --define cores=344 --tune base,peak --output_format all
--define intspeedaffinity --define drop_caches --nopower --runmode speed --tune base,peak --size refspeed
--nopower --runmode speed --tune base:peak --size refspeed intspeed --nopreenv --note-preenv --logfile
$SPEC/tmp/CPU2017.149/templogs/preenv.intspeed.149.0.log --lognum 149.0 --from_runcpu 2
specperl $SPEC/bin/sysinfo
$SPEC = /home/cpu2017

```

-----  
6. /proc/cpuinfo

```

model name      : Intel(R) Xeon(R) 6787P
vendor_id      : GenuineIntel
cpu family     : 6
model          : 173
stepping       : 1
microcode      : 0x1000380
bugs           : spectre_v1 spectre_v2 spec_store_bypass swapgs bhi
cpu cores      : 86
siblings       : 172
2 physical ids (chips)
344 processors (hardware threads)

```

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### Platform Notes (Continued)

physical id 0: core ids 0-42,64-106  
physical id 1: core ids 0-42,64-106  
physical id 0: apicids 0-85,128-213  
physical id 1: apicids 256-341,384-469

Caution: /proc/cpuinfo data regarding chips, cores, and threads is not necessarily reliable, especially for virtualized systems. Use the above data carefully.

7. lscpu

From lscpu from util-linux 2.39.3:

```

Architecture:                x86_64
CPU op-mode(s):              32-bit, 64-bit
Address sizes:                46 bits physical, 57 bits virtual
Byte Order:                  Little Endian
CPU(s):                       344
On-line CPU(s) list:         0-343
Vendor ID:                   GenuineIntel
BIOS Vendor ID:              Intel(R) Corporation
Model name:                   Intel(R) Xeon(R) 6787P
BIOS Model name:             Intel(R) Xeon(R) 6787P  CPU @ 2.0GHz
BIOS CPU family:             179
CPU family:                   6
Model:                       173
Thread(s) per core:          2
Core(s) per socket:          86
Socket(s):                    2
Stepping:                     1
CPU(s) scaling MHz:          23%
CPU max MHz:                  3800.0000
CPU min MHz:                  800.0000
BogoMIPS:                     4000.00
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 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 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 split_lock_detect user_shstk avx_vnni avx512_bf16
                             wbnoinvd dtherm ida arat pln pts hwp hwp_act_window hwp_epp
                             hwp_pkg_req 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

L1d cache:                    8.1 MiB (172 instances)
L1i cache:                    10.8 MiB (172 instances)
L2 cache:                     344 MiB (172 instances)
L3 cache:                     672 MiB (2 instances)
NUMA node(s):                 4
NUMA node0 CPU(s):            0-42,172-214
NUMA node1 CPU(s):            43-85,215-257
NUMA node2 CPU(s):            86-128,258-300
NUMA node3 CPU(s):            129-171,301-343

```

(Continued on next page)



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### Platform Notes (Continued)

Vulnerability Gather data sampling: Not affected  
 Vulnerability Itlb multihit: Not affected  
 Vulnerability Lltf: 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 Not affected; BHI BHI\_DIS\_S  
 Vulnerability Srbds: Not affected  
 Vulnerability Tsx async abort: Not affected

From lscpu --cache:

NAME	ONE-SIZE	ALL-SIZE	WAYS	TYPE	LEVEL	SETS	PHY-LINE	COHERENCY-SIZE
L1d	48K	8.1M	12	Data	1	64	1	64
L1i	64K	10.8M	16	Instruction	1	64	1	64
L2	2M	344M	16	Unified	2	2048	1	64
L3	336M	672M	16	Unified	3	344064	1	64

8. numactl --hardware

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

```
available: 4 nodes (0-3)
node 0 cpus: 0-42,172-214
node 0 size: 257071 MB
node 0 free: 255950 MB
node 1 cpus: 43-85,215-257
node 1 size: 258025 MB
node 1 free: 257329 MB
node 2 cpus: 86-128,258-300
node 2 size: 257986 MB
node 2 free: 257300 MB
node 3 cpus: 129-171,301-343
node 3 size: 257583 MB
node 3 free: 256617 MB
node distances:
node  0  1  2  3
0:  10  12  21  21
1:  12  10  21  21
2:  21  21  10  12
3:  21  21  12  10
```

9. /proc/meminfo

MemTotal: 1055403056 kB

10. who -r

run-level 3 Nov 26 19:09

11. Systemd service manager version: systemd 254 (254.10+suse.84.ge8d77af424)

```
Default Target Status
multi-user degraded
```

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### Platform Notes (Continued)

12. Failed units, from `systemctl list-units --state=failed`

UNIT	LOAD	ACTIVE	SUB	DESCRIPTION
* postfix.service	loaded	failed	failed	Postfix Mail Transport Agent

13. Services, from `systemctl list-unit-files`

STATE	UNIT FILES
enabled	apparmor auditd cron getty@ irqbalance issue-generator kbdsettings kdump kdump-early kdump-notify postfix purge-kernels rollback sshd systemd-pstore 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 ebttables firewallld fsidd grub2-once haveged issue-add-ssh-keys kexec-load lunmask nfs nfs-blkmap rpcbind rpmconfigcheck serial-getty@ systemd-boot-check-no-failures systemd-confext systemd-network-generator systemd-sysextd systemd-time-wait-sync systemd-timesyncd tuned
indirect	systemd-userdbd wickedd

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

```

BOOT_IMAGE=/boot/vmlinuz-6.4.0-150600.21-default
root=UUID=d4e057bf-4e4b-4e72-b0d4-5cbb8854b3eb
splash=silent
mitigations=auto
quiet
security=apparmor
crashkernel=364M,high
crashkernel=72M,low

```

15. `cpupower frequency-info`

```

analyzing CPU 49:
  current policy: frequency should be within 800 MHz and 3.80 GHz.
                  The governor "performance" may decide which speed to use
                  within this range.

  boost state support:
    Supported: yes
    Active: yes

```

16. `tuned-adm active`

```

It seems that tuned daemon is not running, preset profile is not activated.
Preset profile: latency-performance

```

17. `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

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### Platform Notes (Continued)

```

vm.swappiness          60
vm.watermark_boost_factor 15000
vm.watermark_scale_factor 10
vm.zone_reclaim_mode  0

```

```

-----
18. /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

```

```

-----
19. /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

```

```

-----
20. OS release
From /etc/*-release /etc/*-version
os-release SUSE Linux Enterprise Server 15 SP6

```

```

-----
21. Disk information
SPEC is set to: /home/cpu2017
Filesystem  Type  Size  Used Avail Use% Mounted on
/dev/sdb2   btrfs 222G  9.0G 209G   5% /home

```

```

-----
22. /sys/devices/virtual/dmi/id
Vendor:      Cisco Systems Inc
Product:     UCSC-C220-M8S
Serial:      WZP28479TTU

```

```

-----
23. 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:
4x 0xCE00 M321R8GA0PB2-CCPEC 64 GB 2 rank 6400
12x 0xCE00 M321R8GA0PB2-CCPKC 64 GB 2 rank 6400

```

```

-----
24. BIOS
(This section combines info from /sys/devices and dmidecode.)
BIOS Vendor:      Cisco Systems, Inc.
BIOS Version:     C220M8.4.3.6b.0.0430251037
BIOS Date:        04/30/2025
BIOS Revision:    5.35

```



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## Compiler Version Notes

```

=====
C      | 600.perlbench_s(base, peak) 602.gcc_s(base, peak) 605.mcf_s(base, peak) 625.x264_s(base, peak)
      | 657.xz_s(base, peak)
=====

```

```

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.
=====

```

```

=====
C++   | 620.omnetpp_s(base, peak) 623.xalancbmk_s(base, peak) 631.deepsjeng_s(base, peak)
      | 641.leela_s(base, peak)
=====

```

```

Intel(R) oneAPI DPC++/C++ Compiler for applications running on Intel(R) 64, Version 2024.1.0 Build 20240308
Copyright (C) 1985-2024 Intel Corporation. All rights reserved.
=====

```

```

=====
Fortran | 648.exchange2_s(base, peak)
=====

```

```

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

## Base Portability Flags

```

600.perlbench_s: -DSPEC_LP64 -DSPEC_LINUX_X64
602.gcc_s: -DSPEC_LP64
605.mcf_s: -DSPEC_LP64
620.omnetpp_s: -DSPEC_LP64
623.xalancbmk_s: -DSPEC_LP64 -DSPEC_LINUX
625.x264_s: -DSPEC_LP64
631.deepsjeng_s: -DSPEC_LP64
641.leela_s: -DSPEC_LP64
648.exchange2_s: -DSPEC_LP64
657.xz_s: -DSPEC_LP64

```



# SPEC CPU®2017 Integer Speed Result

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## Cisco Systems

Cisco UCS C220 M8 (Intel Xeon 6787P 2.0 GHz processor)

SPECspeed®2017\_int\_base = 14.0

SPECspeed®2017\_int\_peak = 14.2

**CPU2017 License:** 9019

**Test Sponsor:** Cisco Systems

**Tested by:** Cisco Systems

**Test Date:** Nov-2025

**Hardware Availability:** Feb-2025

**Software Availability:** Jun-2024

## 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 -fiopenmp
-DSPEC_OPENMP -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

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/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

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
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

## Peak Compiler Invocation

C benchmarks:

icx

C++ benchmarks:

icpx

Fortran benchmarks:

ifx

## Peak Portability Flags

Same as Base Portability Flags

## Peak Optimization Flags

C benchmarks:

```
600.perlbench_s: -w -m64 -std=c11 -Wl,-z,muldefs
-fprofile-generate(pass 1)
-fprofile-use=default.profddata(pass 2) -xCORE-AVX2(pass 1)
-flto -Ofast(pass 1) -xCORE-AVX512 -O3 -ffast-math
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
```

(Continued on next page)



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## Peak Optimization Flags (Continued)

600.perlbench\_s (continued):

```
-fiopenmp -DSPEC_OPENMP -fno-strict-overflow
-L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

602.gcc\_s: -w -m64 -std=c11 -Wl,-z,muldefs

```
-fprofile-generate(pass 1)
-fprofile-use=default.profdata(pass 2) -xCORE-AVX2(pass 1)
-flto -Ofast(pass 1) -xCORE-AVX512 -O3 -ffast-math
-mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
-fiopenmp -DSPEC_OPENMP -L/usr/local/jemalloc64-5.0.1/lib
-ljemalloc
```

605.mcf\_s: basepeak = yes

625.x264\_s: -w -std=c11 -m64 -Wl,-z,muldefs -xsapphirerapids -O3

```
-ffast-math -flto -mfpmath=sse -funroll-loops
-qopt-mem-layout-trans=4 -fiopenmp -DSPEC_OPENMP
-fno-alias -L/usr/local/jemalloc64-5.0.1/lib -ljemalloc
```

657.xz\_s: basepeak = yes

C++ benchmarks:

620.omnetpp\_s: basepeak = yes

623.xalancbmk\_s: basepeak = yes

631.deepsjeng\_s: basepeak = yes

641.leela\_s: basepeak = yes

Fortran benchmarks:

648.exchange2\_s: basepeak = yes

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

<http://www.spec.org/cpu2017/flags/Intel-ic2024-official-linux64.2025-06-17.html>

<http://www.spec.org/cpu2017/flags/Cisco-Platform-Settings-V2.0-GNR-revI.html>

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

<http://www.spec.org/cpu2017/flags/Intel-ic2024-official-linux64.2025-06-17.xml>

<http://www.spec.org/cpu2017/flags/Cisco-Platform-Settings-V2.0-GNR-revI.xml>



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