Cisco Systems
Cisco UCS C240 M7 (Intel Xeon Gold 6414U, 2.00GHz)

CPU2017 License: 9019
Test Sponsor: Cisco Systems
Tested by: Cisco Systems
Hardware Availability: Mar-2023
Software Availability: Dec-2022

Table of Copies

<table>
<thead>
<tr>
<th>Program</th>
<th>Copies</th>
</tr>
</thead>
<tbody>
<tr>
<td>perlbench_r</td>
<td>64</td>
</tr>
<tr>
<td>gcc_r</td>
<td>64</td>
</tr>
<tr>
<td>mcf_r</td>
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</tr>
<tr>
<td>omnetpp_r</td>
<td>64</td>
</tr>
<tr>
<td>xalancbmk_r</td>
<td>64</td>
</tr>
<tr>
<td>x264_r</td>
<td>64</td>
</tr>
<tr>
<td>deepsjeng_r</td>
<td>64</td>
</tr>
<tr>
<td>leela_r</td>
<td>64</td>
</tr>
<tr>
<td>exchange2_r</td>
<td>64</td>
</tr>
<tr>
<td>xz_r</td>
<td>64</td>
</tr>
</tbody>
</table>

**SPECrate®2017_int_base = 251**
**SPECrate®2017_int_peak = 260**

**Hardware**
- CPU Name: Intel Xeon Gold 6414U
- Max MHz: 3400
- Nominal: 2000
- Enabled: 32 cores, 1 chip, 2 threads/core
- Orderable: 1 Chips
- Cache L1: 32 KB I + 48 KB D on chip per core
- L2: 2 MB I+D on chip per core
- L3: 60 MB I+D on chip per chip
- Other: None
- Memory: 512 GB (8 x 64 GB 2Rx4 PC5-4800B-R)
- Storage: 1 x 960 GB M.2 SSD SATA
- Other: None

**Software**
- OS: SUSE Linux Enterprise Server 15 SP4
- 5.14.21-150400.22-default
- Compiler: C/C++: Version 2023.2.3 of Intel oneAPI DPC++/C++ Compiler for Linux;
- Fortran: Version 2023.2.3 of Intel Fortran Compiler for Linux;
- Parallel: No
- Firmware: Version 4.3.2d released Nov-2023
- File System: xfs
- System State: Run level 3 (multi-user)
- Base Pointers: 64-bit
- Peak Pointers: 32/64-bit
- Other: jemalloc memory allocator V5.0.1
- Power Management: BIOS set to prefer performance at the cost of additional power usage
## SPEC CPU®2017 Integer Rate Result

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### Results Table

<table>
<thead>
<tr>
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<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
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<th>Ratio</th>
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</thead>
<tbody>
<tr>
<td>500.perlbench_r</td>
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<td>533</td>
<td>191</td>
<td><strong>533</strong></td>
<td><strong>191</strong></td>
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<td>520.omnetpp_r</td>
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<td>546</td>
<td>126</td>
</tr>
</tbody>
</table>

- **SPECrate®2017_int_base = 251**
- **SPECrate®2017_int_peak = 260**

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/cpu2017/lib/intel64:/home/cpu2017/lib/ia32:/home/cpu2017/je5.0.1-32"
- MALLOC_CONF = "retain:true"

### General Notes

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

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General Notes (Continued)

jemalloc, a general purpose malloc implementation
built with the Redhat Enterprise 7.5, and the system compiler gcc 4.8.5

Platform Notes

BIOS Settings:
Adjacent Cache Line Prefetcher set to Enabled
DCU streamer Prefetch set to Enabled
Enhanced CPU Performance set to Auto
LLC Dead Line set to Disabled
ADDDC Sparing set to Disabled
Processor C6 Report set to Enabled

Sysinfo program /home/cpu2017/bin/sysinfo
Rev: r6732 of 2022-11-07 fe91c89b7ed5c36ae2c92cc097bec197
running on specsrv Sat Feb 3 00:12:32 2024

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

Table of contents
1. uname -a
2. w
3. Username
4. ulimit -a
5. sysinfo process ancestry
6. /proc/cpuinfo
7. lsacpu
8. numacll --hardware
9. /proc/meminfo
10. who
11. Systemd service manager version: systemd 249 (249.11+suse.124.g2bc0b2c447)
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
19. Disk information
20. /sys/devices/virtual/dmi/id
21. dmidecode
22. BIOS

1. uname -a
Linux specsrv 5.14.21-150400.22--default #1 SMP PREEMPT_DYNAMIC Wed May 11 06:57:18 UTC 2022 (49db222)
x86_64 x86_64 x86_64 GNU/Linux

2. w
00:12:32 up 9 min, 1 user, load average: 0.00, 0.21, 0.24
USER     TTY     FROM       LOGIN@   IDLE   JCPU   PCPU WHAT
root     tty1     -         00:11    8.00s  1.33s  0.14s -bash

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SPEC CPU®2017 Integer Rate Result

Copyright 2017-2024 Standard Performance Evaluation Corporation

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Platform Notes (Continued)

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) 2062566
   max locked memory      (kbytes, -l) 64
   max memory size        (kbytes, -m) unlimited
   open files             (-n) 1024
   pipe size              (512 bytes, -p) 8
   POSIX message queues   (bytes, -q) 819200
   real-time priority     (-r) 0
   stack size             (kbytes, -s) unlimited
   cpu time               (seconds, -t) unlimited
   max user processes     (-u) 2062566
   virtual memory         (kbytes, -v) unlimited
   file locks             (-x) unlimited

5. sysinfo process ancestry
   /usr/lib/systemd/systemd --switched-root --system --deserialize 30
   login -- root
   -bash
   -bash
   runcpu --nobuild --action validate --define default-platform-flags --define numcopies=64 -c
   ic2023.2.3-lin-core-avx512-rate-20231121.cfg --reportable --iterations 3 --define smt-on --define cores=32
   --define physicalfirst --define invoke_with_interleave --define drop_caches --tune all --o all intrate
   runcpu --nobuild --action validate --define default-platform-flags --define numcopies=64 --configfile
   ic2023.2.3-lin-core-avx512-rate-20231121.cfg --reportable --iterations 3 --define smt-on --define cores=32
   --define physicalfirst --define invoke_with_interleave --define drop_caches --tune all --output_format all
   --nopower --runmode rate --tune base:peak --size refrate intrate --nopreenv --note-preenv --logfile
   $SPEC/tmp/CPU2017.269/templogs/preenv.intrate.269.0.log --lognum 269.0 --from_runcpu 2
   specperl $SPEC/bin/sysinfo
   $SPEC = /home/cpu2017

6. /proc/cpuinfo
   model name      : Intel(R) Xeon(R) Gold 6414U
   vendor_id       : GenuineIntel
   cpu family      : 6
   model           : 143
   stepping        : 8
   microcode       : 0x2b00000b1
   bugs            : spectre_v1 spectre_v2 spec_store_bypass swappgs
   cpu cores       : 32
   siblings        : 64
   1 physical ids (chips)
   64 processors (hardware threads)
   physical id 0: core ids 0-31
   physical id 0: apic ids 0-63
   Caution: /proc/cpuinfo data regarding chips, cores, and threads is not necessarily reliable, especially for virtualized systems. Use the above data carefully.

7. lscpu

(Continued on next page)
Platform Notes (Continued)

From lscpu from util-linux 2.37.2:
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): 64
On-line CPU(s) list: 0-63
Vendor ID: GenuineIntel
Model name: Intel(R) Xeon(R) Gold 6414U
CPU family: 6
Model: 143
Thread(s) per core: 2
Core(s) per socket: 32
Socket(s): 1
Stepping: 8
CPU max MHz: 3400.0000
CPU min MHz: 800.0000
BogoMIPS: 4000.00
Flags: fpu vme de pse tm sse sse2 ss ht tm pbe syscall nx pdpe1gb rdtscp lm constant_tsc arch_perfmon pebs bts rep_good nopl xtopology nonstop_tsc cpuid aperfmperf tsc_known_freq pni pclmulqdq dtes64 monitor ds_cpl vmx est tm tm2 ssse3 sdbg fma cx16 xtpr pdcm pcid dca sse4_1 sse4_2 x2apic movbe popcnt pbef msr pcr Thornton lock mce lmin fxsr sse2 sse3 ssse3 sse4_1 sse4_2 ssse3 fma cx16 xtpr pdcm pcid dca sse4_1 sse4_2 x2apic movbe popcnt pbef msr pcr Thornton lock mce lmin msr pcr Thornton lock mce lmin msr pcr Thornton lock mce lmin msr pcr Thornton lock mce lmin msr pcr Thornton lock mce lmin msr pcr Thornton lock mce lmin

### L1d cache:
1.5 MiB (32 instances)

### L1i cache:
1 MiB (32 instances)

### L2 cache:
64 MiB (32 instances)

### L3 cache:
60 MiB (1 instance)

### NUMA node(s):

- NUMA node0 CPU(s): 0-7,32-39
- NUMA node1 CPU(s): 8-15,40-47
- NUMA node2 CPU(s): 16-23,48-55
- NUMA node3 CPU(s): 24-31,56-63

Vulnerability Itlb multihit: Not affected
Vulnerability L1tf: Not affected
Vulnerability Mds: Not affected
Vulnerability Meltdown: Not affected
Vulnerability Spectre v1: Mitigation; speculative memory access bypassing memory barriers
Vulnerability Spectre v2: Mitigation; Enhanced IBRS, IBPB conditional, SBB filling
Vulnerability Srbds: Not affected
Vulnerability Tsx async abort: Not affected

From lscpu --cache:

<table>
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<tr>
<th>NAME</th>
<th>ONE-SIZE</th>
<th>ALL-SIZE</th>
<th>WAYS</th>
<th>TYPE</th>
<th>LEVEL</th>
<th>SETS</th>
<th>PHY-LINE</th>
<th>COHERENCY-SIZE</th>
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<tbody>
<tr>
<td>L1d</td>
<td>48K</td>
<td>1.5M</td>
<td>12</td>
<td>Data</td>
<td>1</td>
<td>64</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>L1i</td>
<td>32K</td>
<td>1M</td>
<td>8</td>
<td>Instruction</td>
<td>1</td>
<td>64</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>L2</td>
<td>2M</td>
<td>64M</td>
<td>16</td>
<td>Unified</td>
<td>2</td>
<td>2048</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

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SPECrate®2017_int_base = 251
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Platform Notes (Continued)

<table>
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<tr>
<th></th>
<th>L3</th>
<th>60M</th>
<th>60M</th>
<th>15 Unified</th>
<th>3</th>
<th>65536</th>
<th>1</th>
<th>64</th>
</tr>
</thead>
</table>

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

available: 4 nodes (0-3)
node 0 cpus: 0-7,32-39
node 0 size: 128635 MB
node 0 free: 127946 MB
node 1 cpus: 8-15,40-47
node 1 size: 129019 MB
node 1 free: 128648 MB
node 2 cpus: 16-23,48-55
node 2 size: 129019 MB
node 2 free: 128675 MB
node 3 cpus: 24-31,56-63
node 3 size: 128991 MB
node 3 free: 128700 MB
node distances:
node   0   1   2   3
0:  10  12  12  12
1:  12  10  12  12
2:  12  12  10  12
3:  12  12  12  10

9. /proc/meminfo
MemTotal: 528041808 kB

10. who -r
run-level 3 Feb 3 00:02

11. Systemd service manager version: systemd 249 (249.1+stable.124.g2bc0b2c447)
Default Target Status
multi-user running

12. Services, from systemctl list-unit-files
STATE
UNIT FILES
enabled YaST2-Firstboot YaST2-Second-Stage apparmor auditd cron getty@ haveged irqbalance
issue-generator kbdsettings klog lvm2-monitor nscd postfix purge-kernels rollback rsyslog
smartd sshd wicked wicked-auto4 wicked-dhcp4 wicked-dhcp6 wicked-nanny
enabled-runtime systemd-remount-fs
systemd
indirect systemctl
chronyd console-getty cups cups-browsed debug-shell ebtables exchange-bmc-os-info
firewall2 gpm grub2-rc once haveged-switch-root ipmi iproute2 issue-add-ssh-keys kexec-load
lunmask man-db-create multipathd nfs nfs-blkmap rdac rpcbind rmcconfigcheck rsysncd
serial-getty@ smartd_generate_opts snmpd snmptrapd svoserve systemd-boot-check-no-failures
systemd-network-generator systemd-sysvinit systemd-sysvinit systemd-timesyncd udisks2
wickedd

13. Linux kernel boot-time arguments, from /proc/cmdline
BOOT_IMAGE=/boot/vmlinux-5.14.21-150400.22-default
root=UUID=7a984919-bd0d-4451-8476-5139e3d5b29b
splash=silent
mitigations=auto
quiet

(Continued on next page)
Platform Notes (Continued)

security=apparmor

14. cpupower frequency-info
   analyzing CPU 0:
   current policy: frequency should be within 800 MHz and 3.40 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                    2097152
   vm.nr_hugepages_mempolicy          0
   vm.nr_overcommit_hugepages         0
   vm.swappiness                      1
   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

18. OS release
   From /etc/*-release /etc/*-version
   os-release SUSE Linux Enterprise Server 15 SP4

19. Disk information
   SPEC is set to: /home/cpu2017
   Filesystem     Type  Size  Used Avail Use% Mounted on
   (Continued on next page)
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---

### Platform Notes (Continued)

/dev/sdb3    xfs  220G  18G  203G  8% /

---

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

Vendor:  Cisco Systems Inc  
Product: UCSC-C240-M7SX  
Serial:   WZP26330JLV  

---

21. dmidecode

Additional information from dmidecode 3.2 follows. WARNING: Use caution when you interpret this section. The 'dmidecode' program reads system data which is "intended to allow hardware to be accurately determined", but the intent may not be met, as there are frequent changes to hardware, firmware, and the "DMTF SMBIOS" standard.

Memory:
8x 0xCE00 M321R8GA0BB0-CQKDG 64 GB 2 rank 4800

---

22. BIOS

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

BIOS Vendor: Cisco Systems, Inc.  
BIOS Version: C240M7.4.3.2d.0.1101232037  
BIOS Date: 11/01/2023  
BIOS Revision: 5.31

---

### Compiler Version Notes

```
C | 502.gcc_r(peak)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on IA-32, Version 2023.2.3 Build x  
Copyright (C) 1985-2023 Intel Corporation. All rights reserved.

C | 500.perlbench_r(base, peak) 502.gcc_r(base) 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 2023.2.3 Build x  
Copyright (C) 1985-2023 Intel Corporation. All rights reserved.

C | 502.gcc_r(peak)

Intel(R) oneAPI DPC++/C++ Compiler for applications running on IA-32, Version 2023.2.3 Build x  
Copyright (C) 1985-2023 Intel Corporation. All rights reserved.

C | 500.perlbench_r(base, peak) 502.gcc_r(base) 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 2023.2.3 Build x  
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```

(Continued on next page)
SPEC CPU®2017 Integer Rate Result

Cisco Systems
Cisco UCS C240 M7 (Intel Xeon Gold 6141U, 2.00GHz)

<table>
<thead>
<tr>
<th>SPECrate®2017_int_base</th>
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<td>SPECrate®2017_int_peak</td>
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CPU2017 License: 9019
Test Sponsor: Cisco Systems
Tested by: Cisco Systems
Test Date: Feb-2024
Hardware Availability: Mar-2023
Software Availability: Dec-2022

Compiler Version Notes (Continued)

<table>
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<tr>
<th>C++</th>
<th>520.omnetpp_r(base, peak) 523.xalanchmk_r(base, peak) 531.deepsjeng_r(base, peak) 541.leela_r(base, peak)</th>
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<th>Fortran</th>
<th>548.exchange2_r(base, peak)</th>
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</table>

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.xalanchmk_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 -xCORE-AVX512 -O3 -ffast-math -fhto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -L/home/specdev/new_compilers/ic2023.2.3/compiler/lib/intel64_lin

(Continued on next page)
Cisco Systems

Cisco UCS C240 M7 (Intel Xeon Gold 6144U, 2.00GHz)

SPECrate®2017_int_base = 251
SPECrate®2017_int_peak = 260

CPU2017 License: 9019
Test Sponsor: Cisco Systems
Tested by: Cisco Systems

Test Date: Feb-2024
Hardware Availability: Mar-2023
Software Availability: Dec-2022

Base Optimization Flags (Continued)

C benchmarks (continued):
- lqkmalloc

C++ benchmarks:
- w -std=c++14 -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math
- flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
- /home/specdev/new_compilers/ic2023.2.3/compiler/lib/intel64_lin
- lqkmalloc

Fortran benchmarks:
- w -m64 -Wl,-z,muldefs -xCORE-AVX512 -O3 -ffast-math -flto
- mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4
- nostandard-realloc-lhs -align array32byte -auto
- /home/specdev/new_compilers/ic2023.2.3/compiler/lib/intel64_lin
- lqkmalloc

Peak Compiler Invocation

C benchmarks:
icx

C++ benchmarks:
icpx

Fortran benchmarks:
ifx

Peak Portability Flags

500.perlbench_r: -DSPEC_LP64 -DSPEC_LINUX_X64
502.gcc_r: -D_FILE_OFFSET_BITS=64
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
Cisco Systems
Cisco UCS C240 M7 (Intel Xeon Gold 6414U, 2.00GHz)

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<tr>
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<td>Cisco Systems</td>
<td>Software Availability:</td>
<td>Dec-2022</td>
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</table>

**Peak Optimization Flags**

**C benchmarks:**

```bash
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 -L/home/specdev/new_compilers/ic2023.2.3/compiler/lib/intel64_lin -lqkmalloc


505.mcf_r: basepeak = yes

525.x264_r: -w -std=c11 -m64 -Wl,-z,muldefs -xCORE-AVX512 -Ofast -ffast-math -flto -mfpmath=sse -funroll-loops -qopt-mem-layout-trans=4 -fno-alias -L/home/specdev/new_compilers/ic2023.2.3/compiler/lib/intel64_lin -lqkmalloc

557.xz_r: basepeak = yes
```

**C++ benchmarks:**

```bash
520.omnetpp_r: basepeak = yes

523.xalancbmk_r: basepeak = yes

531.deepsjeng_r: basepeak = yes

541.leela_r: basepeak = yes
```

**Fortran benchmarks:**

```bash
548.exchange2_r: basepeak = yes
```
## SPEC CPU®2017 Integer Rate Result

**Cisco Systems**
Cisco UCS C240 M7 (Intel Xeon Gold 6414U, 2.00GHz)

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**CPU2017 License:** 9019  
**Test Sponsor:** Cisco Systems  
**Tested by:** Cisco Systems  
**Hardware Availability:** Mar-2023  
**Software Availability:** Dec-2022

- **Test Date:** Feb-2024

The flags files that were used to format this result can be browsed at:
- [http://www.spec.org/cpu2017/flags/Intel-ic2023-official-linux64.html](http://www.spec.org/cpu2017/flags/Intel-ic2023-official-linux64.html)

You can also download the XML flags sources by saving the following links:
- [http://www.spec.org/cpu2017/flags/Intel-ic2023-official-linux64.xml](http://www.spec.org/cpu2017/flags/Intel-ic2023-official-linux64.xml)

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For questions about this result, please contact the tester. For other inquiries, please contact info@spec.org.

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