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```
ubuntu@ip-172-31-87-241:~$ su vini
Password:
vini@ip-172-31-87-241:/home/ubuntu$ lsb_release -a
No LSB modules are available.
Distributor ID: Ubuntu
Description: Ubuntu 22.04.1 LTS
Release: 22.04
Codename: jammy
```

```
ubuntu@ip-172-31-87-241:~$ cat cpuinfo
cat: cpuinfo: No such file or directory
ubuntu@ip-172-31-87-241:~$ cd /proc
ubuntu@ip-172-31-87-241:/proc$ cat cpuinfo
processor : 0
vendor_id : GenuineIntel
cpu family : 6
model : 63
model name : Intel(R) Xeon(R) CPU E5-2676 v3 @ 2.40GHz
stepping : 2
microcode : 0x49
cpu MHz : 2399.902
cache size : 30720 KB
physical id : 0
siblings : 1
core id : 0
cpu cores : 1
apicid : 0
initial apicid : 0
fpu : yes
fpu_exception : yes
cpuid level : 13
wp : yes
flags : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clf
```

```
ubuntu@ip-172-31-87-241:/proc$ cat meminfo
MemTotal:
                   991128 kB
MemFree:
                   185208 kB
MemAvailable:
                   631256 kB
Buffers:
                    11260 kB
                   547536 kB
Cached:
SwapCached:
                        0 kB
                   364732 kB
Active:
                   252348 kB
Inactive:
Active(anon):
                      832 kB
                    71892 kB
Inactive(anon):
Active(file):
                   363900 kB
Inactive(file):
                   180456 kB
Unevictable:
                    32028 kB
Mlocked:
                    27492 kB
SwapTotal:
                        0 kB
SwapFree:
                        0 kB
Dirtv:
                        8 kB
Writeback:
                        0 kB
AnonPages:
                    90348 kB
                    81128 kB
Mapped:
Shmem:
                      836 kB
```

```
ubuntu@ip-172-31-87-241:/proc$ cat filesystems
nodev
        sysfs
        tmpfs
nodev
nodev
        bdev
nodev
        proc
nodev
        cgroup
nodev
        cgroup2
        cpuset
nodev
nodev
        devtmpfs
nodev
        configfs
nodev
        debugfs
nodev
        tracefs
nodev
        securityfs
nodev
        sockfs
nodev
        bpf
        pipefs
nodev
nodev
        ramfs
nodev
        hugetlbfs
nodev
        devpts
        ext3
        ext2
        ext4
        squashfs
        vfat
```

```
ubuntu@ip-172-31-87-241:/proc$ df
                               1K-blocks
Filesystem
                                                           Used Available Use% Mounted on
/dev/root
                                 30308240 2041484
                                                                        28250372
                                                                                               7% /
tmpfs
                                      495564
                                                                 0
                                                                            495564
                                                                                               0% /dev/shm
tmpfs
                                      198228
                                                             832
                                                                            197396
                                                                                               1% /run
tmpfs
                                          5120
                                                                 0
                                                                                5120
                                                                                               0% /run/lock
/dev/xvda15
                                      106858
                                                           5329
                                                                            101529
                                                                                               5% /boot/efi
                                        99112
                                                                              99108
tmpfs
                                                                 4
                                                                                               1% /run/user/1000
                                   41:/proc$ free
ubuntu@ip-172-31-87
                                                                                   shared buff/cache
                        total
                                             used
                                                                  free
                                                                                                                      available
Mem:
                       991128
                                           188308
                                                               185208
                                                                                        836
                                                                                                       617612
                                                                                                                          631404
Swap:
                                                 Θ
top - 23:19:24 up 24 min, 1 user, load average: 0.08, 0.06, 0.07
Tasks: 95 total, 1 running, 94 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.0 us, 0.0 sy, 0.0 ni,100.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 967.9 total, 180.9 free, 183.7 used, 603.4 buff/cache
MiB Swap: 0.0 total, 0.0 free, 0.0 used. 616.8 avail Mem
      PID USER
                          PR NI
                                        VIRT
                                                   RES
                                                               SHR S %CPU %MEM
                                                                                               TIME+ COMMAND
                                                                                            TIME+ COMMAND
0:08.64 systemd
0:00.00 kthreadd
0:00.00 rcu_gp
0:00.00 rcu_par_gp
0:00.00 netns
0:00.00 kworker/0:0H-events_+
0:00.00 mm_percpu_wq
0:00.00 rcu_tasks_trace
0:00.32 ksoftirqd/0
0:00.66 rcu_sched
0:00.01 migration/0
0:00.00 cpuhp/0
         1 root
2 root
3 root
                                                                                    1.2
0.0
0.0
                                      166304
                                                  11516
                           20
                                 0
                                                              8244 S
                                                                           0.0
                                                                 0.0
                           20
                           0
                               - 20
- 20
- 20
- 20
- 20
         4 root
        5 root
7 root
                                                        0
                                                                           0.0
                                                                                    0.0
                                                                          0.0
0.0
0.0
                                                                                    0.0
0.0
0.0
                                                        0
            root
                           0
                                              0
0
0
       10 root
11 root
12 root
                                                        0
0
                          20
20
20
20
rt
51
                                 0
                                              0
       13 root
14 root
15 root
16 root
17 root
                                                                                    0.0
0.0
0.0
                                                                          0.0
0.0
                                              0
0
                                                        0
                                                                           0.0
                                                                           0.0
                          20
20
0
                                                                                   0.0
0.0
0.0
                                                                                            0:00.00 cpuhp/0
0:00.00 kdevtmpfs
0:00.00 inet_frag_wq
                                                        0
                                                                           0.0
                                                                          0.0
0.0
        18 root
                                  0
                                              0
                                                        0
        19 root
                                - 20
       20 root
                                                                           0.0
                                                                                             0:00.00 kauditd
       tu@ip-172-31-87-241:/proc$ cpuid | more
CPU 0:
     vendor id = "GenuineIntel"
     version information (1/eax):
          processor type = primary processor (0)
                                    = 0x6 (6)
= 0xf (15)
          family
          model
```

```
stepping id = 0x2 (2)
extended family = 0x0 (0)
      extended model = 0x3 (3)
      (family synth) = 0x6 (6)
(model synth) = 0x3f (6)
      (model synth) = 0x3 (63)
(simple synth) = Intel (unknown type) (Haswell C1/M1/R2) {Haswell}, 22nm
  miscellaneous (1/ebx):
      process local APIC physical ID = 0x0 (0)
      maximum IDs for CPUs in pkg
CLFLUSH line size
                                               = 0 \times 1 (1)
= 0 \times 8 (8)
      brand index
                                                = 0 \times 0 (0)
  brand id = 0x00 (0): unknown
  feature information (1/edx):
      x87 FPU on chip
                                                          = true
      VME: virtual-8086 mode enhancement
                                                          = true
      DE: debugging extensions 
PSE: page size extensions
                                                           = true
                                                           = true
-More--
```

```
ubuntu@ip-172-31-87-241:/proc$ sudo dmidecode
# dmidecode 3.3
Getting SMBIOS data from sysfs.
SMBIOS 2.7 present.
11 structures occupying 378 bytes.
Table at 0x000EB01F.
Handle 0x0000, DMI type 0, 24 bytes
BIOS Information
        Vendor: Xen
        Version: 4.11.amazon
        Release Date: 08/24/2006
        Address: 0xE8000
        Runtime Size: 96 kB
        ROM Size: 64 kB
        Characteristics:
                PCI is supported
                EDD is supported
                Targeted content distribution is supported
        BIOS Revision: 4.11
Handle 0x0100, DMI type 1, 27 bytes
System Information
        Manufacturer: Xen
        Product Name: HVM domU
        Version: 4.11.amazon
        Serial Number: ec2aaac4-357d-fce8-8e50-e9923c564b39
```

```
ubuntu@ip-172-31-87-241:/proc$ hardinfo
Computer
Summary
Operating System
Kernel Modules
Boots
Languages
Filesystems
Display
Environment Variables
Development
Users
Groups
Devices
Processor
Memory
PCI Devices
USB Devices
Printers
Battery
Sensors
Input Devices
Storage
DMI
Memory SPD
Resources
Network
Interfaces
IP Connections
```

```
ubuntu@ip-172-31-87-241:~$ inxi -C
CPU:
Info: single core model: Intel Xeon E5-2676 v3 bits: 64 cache: L2: 256 KiB
Speed (MHz): 2400 min/max: N/A core: 1: 2400
ubuntu@ip-172-31-87-241:~$ |
```

```
ubuntu@ip-172-31-87-241:~$ likwid-topology
CPU name: Intel(R) Xeon(R) CPU E5-2676 v3 @ 2.40GHz
CPU type: Intel Xeon Haswell EN/EP/EX processor
CPU type: Intel Xeon Haswell EN/EP/EX processor
CPU stepping: 2
Hardware Thread Topology
Sockets:
Cores per socket:
Threads per core: 1
HWThread Thread Core
0 0 0
                                            Socket
                                                           Available
                                            0
Socket 0: (0)
Cache Topology
Level:
                     32 kB
Size:
Cache groups:
                     (0)
Level:
                     256 kB
Size:
                     (0)
Cache groups:
Level:
                     30 MB
Size:
                     (0)
Cache groups:
NUMA Topology
NUMA domains:
                     0
Domain:
                   (0)
10
Processors:
Distances:
Free memory:
Total memory:
                 104.285 MB
966.203 MB
ubuntu@ip-172-31-87-241:~$
```

```
ubuntu@ip-172-31-87-241:~$ lscpu
Architecture:
                         x86_64
 CPU op-mode(s):
                         32-bit, 64-bit
                         46 bits physical, 48 bits virtual
 Address sizes:
 Byte Order:
                         Little Endian
CPU(s):
 On-line CPU(s) list:
                         0
Vendor ID:
                         GenuineIntel
                         Intel(R) Xeon(R) CPU E5-2676 v3 @ 2.40GHz
 Model name:
   CPU family:
   Model:
                         63
    Thread(s) per core:
                        1
    Core(s) per socket: 1
    Socket(s):
    Stepping:
                         4799.99
    BogoMIPS:
    Flags:
                         fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mc
                         a cmov pat pse36 clflush mmx fxsr sse sse2 ht syscall n
                         x rdtscp lm constant_tsc rep_good nopl xtopology cpuid
                         tsc_known_freq pni pclmulqdq ssse3 fma cx16 pcid sse4_1
                         sse4_2 x2apic movbe popcnt tsc_deadline_timer aes xsav
                         e avx f16c rdrand hypervisor lahf_lm abm cpuid_fault in
                         vpcid_single pti fsgsbase bmi1 avx2 smep bmi2 erms invp
                         cid xsaveopt
Virtualization features:
 Hypervisor vendor:
                         Xen
                         full
  Virtualization type:
Caches (sum of all):
 L1d:
                         32 KiB (1 instance)
 L1i:
                         32 KiB (1 instance)
 L2:
                         256 KiB (1 instance)
 L3:
                         30 MiB (1 instance)
NUMA:
  NUMA node(s):
  NUMA node0 CPU(s):
/ulnerabilities:
 Itlb multihit:
                         KVM: Mitigation: VMX unsupported
  L1tf:
                         Mitigation; PTE Inversion
                         Vulnerable: Clear CPU buffers attempted, no microcode;
 Mds:
                         SMT Host state unknown
 Meltdown:
                         Mitigation; PTI
                         Vulnerable: Clear CPU buffers attempted, no microcode;
 Mmio stale data:
                         SMT Host state unknown
                         Not affected
  Retbleed:
  Spec store bypass:
                         Vulnerable
  Spectre v1:
                         Mitigation; usercopy/swapgs barriers and __user pointer
                          sanitization
                         Mitigation; Retpolines, STIBP disabled, RSB filling
  Spectre v2:
                         Not affected
  Srbds:
                         Not affected
  Tsx async abort:
ubuntu@ip-172-31-87-241:~$ |
```

```
ubuntu@ip-172-31-87-241:~$ lshw
WARNING: you should run this program as super-user.
ip-172-31-87-241
    description: Computer
    width: 64 bits
    capabilities: vsyscall32
  *-core
       description: Motherboard
       physical id: 0
     *-memory
          description: System memory
          physical id: 0
          size: 1GiB
     *-cpu
          product: Intel(R) Xeon(R) CPU E5-2676 v3 @ 2.40GHz
          vendor: Intel Corp.
          physical id: 1
          bus info: cpu@0
          version: 6.63.2
          width: 64 bits
          capabilities: fpu fpu_exception wp vme de pse tsc msr pae mce cx8 apic
 sep mtrr pge mca cmov pat pse36 clflush mmx fxsr sse sse2 ht syscall nx rdtscp
x86-64 constant_tsc rep_good nopl xtopology cpuid tsc_known_freq pni pclmulqdq s
sse3 fma cx16 pcid sse4_1 sse4_2 x2apic movbe popcnt tsc_deadline_timer aes xsav
e avx f16c rdrand hypervisor lahf_lm abm cpuid_fault invpcid_single pti fsgsbase
bmi1 avx2 smep bmi2 erms invpcid xsaveopt
          configuration: microcode=73
     *-pci
          description: Host bridge
          product: 440FX - 82441FX PMC [Natoma]
          vendor: Intel Corporation
          physical id: 100
          bus info: pci@0000:00:00.0
          version: 02
          width: 32 bits
          clock: 33MHz
        *-isa
             description: ISA bridge
             product: 82371SB PIIX3 ISA [Natoma/Triton II]
             vendor: Intel Corporation
             physical id: 1
             bus info: pci@0000:00:01.0
             version: 00
             width: 32 bits
             clock: 33MHz
             capabilities: isa
             configuration: latency=0
           *-pnp00:00
                product: PnP device PNP0c02
                physical id: 0
                capabilities: pnp
                configuration: driver=system
           *-pnp00:01
                product: PnP device PNP0c02
                physical id: 1
                capabilities: pnp
                configuration: driver=system
           *-pnp00:02
                product: PnP device PNP0b00
```

```
ubuntu@ip-172-31-87-241:~$ | stopo |
Machine (966MB total)
    Package L#0
    NUMANode L#0 (P#0 966MB)
    L3 L#0 (30MB) + L2 L#0 (256KB) + L1d L#0 (32KB) + L1i L#0 (32KB) + Core L#0 + PU L#0 (P#0) |
HostBridge
    PCI 00:01.1 (IDE)
    PCI 00:02.0 (VGA)
    Block "xvda"
    Net "eth0"
ubuntu@ip-172-31-87-241:~$ |
```