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# Descripción de los procesadores

Nodos	Procesador	Cores	Family-model-stepping
node1-7	4 x <a href="#">AMD Opteron 6262 HE @1,6GHz</a>	16	21-1-2
inode11-15	4 x <a href="#">Intel L7555 @1,87 GHz</a>	8	6-2e-6
inode16-20	2 x <a href="#">Intel Xeon E5-2650L @1,80GHz</a>	8	6-2d-7

## Opciones BIOS

### node1-7

- NO-EXECUTE PAGE-PROTECTION → enabled
- AMD-V → enabled
- PROCESSOR CORE DISABLE → none
- AMD-Vi (IOMMU) → disabled
- AMD CORE PERFORMANCE BOOST → enabled
- HARDWARE PREFETCH TRAINING ON SOFTWARE PREFETCH → enabled
- DRAMM PREFETCH ON CPU REQUEST → enabled
- DRAMM PREFETCH ON I/O REQUEST → enabled
- CPU CORE HARDWARE PREFETCHER → enabled
- CPU CACHE STRIDE PREFETCHER → enabled
- NODE INTERLEAVING → disabled
- SYSTEM LOCALITY INFORMATION TABLE → enabled
- HPC OPTIMIZATION MODE → disabled
- MINIMUM PROCESSOR IDLE POWER STATE → Core C6 State
- HP POWER REGULATOR → OS Control Mode

### inode11-15

- CORE SPEED → 1,86 GHz
- BUS SPEED → 5,86 GT/s
- LOGICAL PROCESSOR → disabled
- VIRTUALIZATION TECHNOLOGY → enabled
- ADJACENT CACHE LINE PREFETCH → enabled
- HARDWARE PREFETCHER → enabled
- EXECUTE DISABLE → enabled
- NUMBER OF CORES PER PROCESSOR → all
- TURBO MODE → enabled
- C1E → enabled
- C STATES → enabled
- POWER MANAGEMENT → Active Power Controller
- CPU POWER AND PERFORMANCE MANAGEMENT → System DBPM
- FAN POWER AND PERFORMANCE MANAGEMENT → Minimum Power
- MEMORY POWER AND PERFORMANCE MANAGEMENT → Maximum Performance

## inode16-20

- LOGICAL PROCESSOR → enabled
- QPI SPEED → 8.0 GT/s
- ALTERNATE REQUESTOR TRANSACTION ID (RTID) → disabled
- VIRTUALIZATION TECHNOLOGY → enabled
- ADJACENT CACHE LINE PREFETCH → enabled
- HARDWARE PREFETCHER → enabled
- DCU STREAMER PREFETCHER → enabled
- DCU IP PREFETCHER → enabled
- EXECUTE DISABLE → enabled
- LOGICAL PROCESSOR IDLING → disabled
- CORE SPEED → 1,80 GHz
- PROCESSOR BUS SPEED → 8,0 GT/s
- CPU POWER MANAGEMENT → System DBPM(DAPC)
- C1E → enabled
- C STATES → enabled
- TURBO BOOST → enabled

## cat /proc/cpuinfo

### node1-7

```
processor      : 0
vendor_id     : AuthenticAMD
cpu family    : 21
model         : 1
model name    : AMD Opteron(tm) Processor 6262 HE
stepping      : 2
microcode     : 0x600063d
cpu MHz       : 1600.180
cache size   : 2048 KB
physical id   : 0
siblings      : 16
core id       : 0
cpu cores     : 8
apicid        : 32
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 clflush mmx fxsr sse sse2 ht syscall nx mmxext fxsr_opt pdpe1gb
rdtscp lm constant_tsc rep_good nopl nonstop_tsc extd_apicid amd_dcm
aperfmpe
rf pni pclmulqdq monitor ssse3 cx16 sse4_1 sse4_2 popcnt aes xsave avx
lahf_lm cmp_legacy svm extapic cr8_legacy abm sse4a misalignsse
```

```

3dnowprefetch osvw ibs xop skinit wdt lwp fma4 nodeid_msr topoext
perfctr_core arat cpb hw_pstat
e npt lbrv svm_lock nrip_save tsc_scale vmcb_clean flushbyasid decodeassists
pausefilter pfthreshold
bogomips      : 3200.36
TLB size     : 1536 4K pages
clflush size  : 64
cache_alignment : 64
address sizes : 48 bits physical, 48 bits virtual
power management: ts ttp tm 100mhzsteps hwpstate [9]

```

#### inode11-15

```

processor      : 0
vendor_id     : GenuineIntel
cpu family    : 6
model         : 46
model name    : Intel(R) Xeon(R) CPU           L7555 @ 1.87GHz
stepping      : 6
microcode     : 0xa
cpu MHz       : 1861.835
cache size    : 24576 KB
physical id   : 0
siblings      : 8
core id       : 0
cpu cores     : 8
apicid        : 0
initial apicid : 0
fpu           : yes
fpu_exception : yes
cpuid level   : 11
wp            : yes
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 rdtscp
lm constant_tsc arch_perfmon pebs bts rep_good nopl xtopology nonstop_tsc a
perfmpperf pni dtes64 monitor ds_cpl vmx est tm2 ssse3 cx16 xtpr pdcm dca
sse4_1 sse4_2 x2apic popcnt lahf_lm ida dtherm tpr_shadow vnmi flexpriority
ept vpid
bogomips      : 3723.67
clflush size  : 64
cache_alignment : 64
address sizes : 44 bits physical, 48 bits virtual
power management:

```

#### inode16-20

```

processor      : 0
vendor_id     : GenuineIntel

```

```
cpu family   : 6
model        : 45
model name   : Intel(R) Xeon(R) CPU E5-2650L 0 @ 1.80GHz
stepping     : 7
microcode    : 0x710
cpu MHz      : 1999.898
cache size   : 20480 KB
physical id   : 0
siblings     : 16
core id      : 0
cpu cores    : 8
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 clflush dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx pdpe1gb
rdtscp lm constant_tsc arch_perfmon pebs bts rep_good nopl xtopology nonst
op_tsc aperfmperf eagerfpu pni pclmulqdq dtes64 monitor ds_cpl vmx smx est
tm2 ssse3 cx16 xtpr pdcm pcid dca sse4_1 sse4_2 x2apic popcnt
tsc_deadline_timer aes xsave avx lahf_lm ida arat xsaveopt pln pts dtherm
tpr_shadow vnmi flex
priority ept vpid
bogomips     : 3600.09
clflush size  : 64
cache_alignment : 64
address sizes : 46 bits physical, 48 bits virtual
power management:
```

## lscpu

### node1-7

```
Architecture:          x86_64
CPU op-mode(s):        32-bit, 64-bit
Byte Order:             Little Endian
CPU(s):                 64
On-line CPU(s) list:   0-63
Thread(s) per core:    2
Core(s) per socket:    8
Socket(s):              4
NUMA node(s):          8
Vendor ID:              AuthenticAMD
CPU family:             21
Model:                  1
Model name:             AMD Opteron(tm) Processor 6262 HE
```

```
Stepping: 2
CPU MHz: 1600.000
CPU max MHz: 1600,0000
CPU min MHz: 1000,0000
BogoMIPS: 3200.01
Virtualización: AMD-V
L1d cache: 16K
L1i cache: 64K
L2 cache: 2048K
L3 cache: 6144K
NUMA node0 CPU(s): 0,4,8,12,16,20,24,28
NUMA node1 CPU(s): 32,36,40,44,48,52,56,60
NUMA node2 CPU(s): 1,5,9,13,17,21,25,29
NUMA node3 CPU(s): 33,37,41,45,49,53,57,61
NUMA node4 CPU(s): 2,6,10,14,18,22,26,30
NUMA node5 CPU(s): 34,38,42,46,50,54,58,62
NUMA node6 CPU(s): 35,39,43,47,51,55,59,63
NUMA node7 CPU(s): 3,7,11,15,19,23,27,31
```

**inode11-15**

```
Architecture: x86_64
CPU op-mode(s): 32-bit, 64-bit
Byte Order: Little Endian
CPU(s): 32
On-line CPU(s) list: 0-31
Thread(s) per core: 1
Core(s) per socket: 8
Socket(s): 4
NUMA node(s): 4
Vendor ID: GenuineIntel
CPU family: 6
Model: 46
Model name: Intel(R) Xeon(R) CPU L7555 @ 1.87GHz
Stepping: 6
CPU MHz: 1862.007
BogoMIPS: 3723.94
Virtualización: VT-x
L1d cache: 32K
L1i cache: 32K
L2 cache: 256K
L3 cache: 24576K
NUMA node0 CPU(s): 0,4,8,12,16,20,24,28
NUMA node1 CPU(s): 1,5,9,13,17,21,25,29
NUMA node2 CPU(s): 2,6,10,14,18,22,26,30
NUMA node3 CPU(s): 3,7,11,15,19,23,27,31
```

## inode16-20

```
Architecture:          x86_64
CPU op-mode(s):       32-bit, 64-bit
Byte Order:           Little Endian
CPU(s):               32
On-line CPU(s) list:  0-31
Thread(s) per core:   2
Core(s) per socket:   8
Socket(s):            2
NUMA node(s):         2
Vendor ID:            GenuineIntel
CPU family:           6
Model:                45
Model name:           Intel(R) Xeon(R) CPU E5-2650L 0 @ 1.80GHz
Stepping:             7
CPU MHz:              2017.968
CPU max MHz:          2300,0000
CPU min MHz:          1200,0000
BogoMIPS:             3601.16
Virtualización:       VT-x
L1d cache:            32K
L1i cache:            32K
L2 cache:             256K
L3 cache:             20480K
NUMA node0 CPU(s):   0,2,4,6,8,10,12,14,16,18,20,22,24,26,28,30
NUMA node1 CPU(s):   1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31
```

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