Subject: Not using all processors?

Posted by syncmaster4 on Tue, 23 Sep 2008 00:09:50 GMT

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```
2.6.18-92.1.1.el5.028stab057.2
Red Hat Enterprise Linux Server release 5.2 (Tikanga)
---
         total    used     free    shared   buffers    cached
Mem:     16012   15931      81        0       544     11556
-/+ buffers/cache:    3829    12183
Swap:    32383       0    32383
---
Processor x 8 (quad core) - (below info is repeated 7 more times)

processor      : 0
vendor_id      : GenuineIntel
cpu family     : 6
model          : 23
model name     : Intel(R) Xeon(R) CPU        E5405  @ 2.00GHz
stepping       : 6
cpu MHz        : 1995.004
cache size     : 6144 KB
physical id    : 0
siblings       : 4
core id        : 3
cpu cores      : 4
fpu            : yes
fpu_exception  : yes
cpuid level    : 10
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 syscall nx lm constant_tsc pni monitor ds_cpl vmx tm2 cx16
xtpr lahf_lm
bogomips       : 3990.02
clflush size   : 64
cache_alignment : 64
address sizes  : 38 bits physical, 48 bits virtual
power management:
---
```

Below is a cut/paste from top; I know you only get a static view but I'm trying to understand why more processors aren't utilized. Rarely (a few times a minute) one of the other processors will drop below 100% idle.

This was run inside the CT which runs MySQL - the MySQL instance was getting hit pretty good when I took this info and is pegged at 100.00 CPU (exactly 100).

```
top - 19:40:54 up 1 day, 14:52,  4 users,  load average: 1.05, 0.94, 0.52
Tasks:  67 total,   1 running,  66 sleeping,   0 stopped,   0 zombie
Cpu0 :  0.0%us,  0.0%sy,  0.0%ni,100.0%id,  0.0%wa,  0.0%hi,  0.0%si,  0.0%st
Cpu1 :  0.0%us,  0.0%sy,  0.0%ni,100.0%id,  0.0%wa,  0.0%hi,  0.0%si,  0.0%st
Cpu2 :  0.0%us,  0.0%sy,  0.0%ni,100.0%id,  0.0%wa,  0.0%hi,  0.0%si,  0.0%st
Cpu3 :  0.0%us,  0.0%sy,  0.0%ni,100.0%id,  0.0%wa,  0.0%hi,  0.0%si,  0.0%st
Cpu4 :  0.0%us,  0.0%sy,  0.0%ni,100.0%id,  0.0%wa,  0.0%hi,  0.0%si,  0.0%st
Cpu5 : 48.8%us, 51.2%sy,  0.0%ni,  0.0%id,  0.0%wa,  0.0%hi,  0.0%si,  0.0%st
Cpu6 :  0.0%us,  0.0%sy,  0.0%ni,100.0%id,  0.0%wa,  0.0%hi,  0.0%si,  0.0%st
Cpu7 :  0.0%us,  0.0%sy,  0.0%ni,100.0%id,  0.0%wa,  0.0%hi,  0.0%si,  0.0%st
Mem:  8388608k total,  1060916k used,  7327692k free,       0k buffers
Swap:       0k total,      0k used,      0k free,       0k cached
```

From what I understand the cpu resources are spread evenly across all CTs (CPUUNITS = 1000 in each CT). The other CTs on this server have almost no traffic and utilize almost no resources. I'm just trying to make sure I understand CPU sharing and have it setup correctly. Configuration files below.

```
]# cat 0.conf
# This is configuration file for VE0.
# Only UB parameters are processed
#
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ONBOOT="no"

# UBC parameters (in form of barrier:limit)
OOMGUARPAGES="9223372036854775807:9223372036854775807"
```

```
]# cat 504.conf
# Primary parameters
NUMPROC="10248:10248"
AVNUMPROC="5124:5124"
NUMTCPSOCK="10248:10248"
NUMOTHERSOCK="10248:10248"
VMGUARPAGES="2097152:9223372036854775807"

# Secondary parameters
KMEMSIZE="419769548:461746502"
TCPSNDBUF="97947375:139923183"
TCPRCVBUF="97947375:139923183"
OTHERSOCKBUF="48973687:90949495"
DGRAMRCVBUF="48973687:48973687"
```

```
OOMGUARPAGES="1342136:9223372036854775807"
PRIVVMPAGES="2097152:2705545"

# Auxiliary parameters
LOCKEDPAGES="20496:20496"
SHMPAGES="245958:245958"
PHYSPAGES="0:9223372036854775807"
NUMFILE="163968:163968"
NUMFLOCK="1000:1100"
NUMPTY="512:512"
NUMSIGINFO="1024:1024"
DCACHESIZE="91694726:94445568"
NUMIPTENT="200:200"
DISKSPACE="52428800:52428800"
DISKINODES="13530934:13530934"
CPUUNITS="1000"
VE_ROOT="/vz/root/$VEID"
VE_PRIVATE="/vz/private/$VEID"
OSTEMPLATE="centos-5-x86_64-minimal"
ORIGIN_SAMPLE="8"
IP_ADDRESS="192.168.0.2"
HOSTNAME="my.server.com"
NAMESERVER="192.168.0.1"
CAPABILITY="SYS_TIME:on "
ONBOOT="yes"
```

Thanks!
Craig