
Subject: bogomips != bogomips in /proc/cpuinfo
Posted by [sspt](#) on Thu, 31 Jul 2008 15:47:13 GMT

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Hi,

I've recently reloaded a box with CentOS 5.2 + 2.6.18-53.1.19.el5.028stab053.14. There seems to be a problem with NMI watchdog and the bogomips is incorrect. Any idea about what can cause it?

/var/log/messages (First boot, 2.6.18-92.el5)

Jul 29 18:26:31 server kernel: Booting processor 1/4 APIC 0x1

Jul 29 18:26:31 server kernel: Initializing CPU#1

Jul 29 18:26:31 server kernel: Calibrating delay using timer specific routine.. 4386.89 BogoMIPS (lpj=2193447)

Jul 29 18:26:31 server kernel: CPU: L1 I Cache: 64K (64 bytes/line), D cache 64K (64 bytes/line)

Jul 29 18:26:31 server kernel: CPU: L2 Cache: 1024K (64 bytes/line)

Jul 29 18:26:31 server kernel: CPU 1/1 -> Node 0

Jul 29 18:26:31 server kernel: CPU: Physical Processor ID: 0

Jul 29 18:26:31 server kernel: CPU: Processor Core ID: 1

Jul 29 18:26:31 server kernel: Dual Core AMD Opteron(tm) Processor 275 stepping 02

Jul 29 18:26:31 server kernel: CPU 1: Syncing TSC to CPU 0.

Jul 29 18:26:31 server kernel: CPU 1: synchronized TSC with CPU 0 (last diff -7 cycles, maxerr 593 cycles)

Jul 29 18:26:31 server kernel: SMP alternatives: switching to SMP code

Jul 29 18:26:32 server kernel: Booting processor 2/4 APIC 0x2

Jul 29 18:26:32 server kernel: Initializing CPU#2

Jul 29 18:26:32 server kernel: Calibrating delay using timer specific routine.. 4386.89 BogoMIPS (lpj=2193445)

Jul 29 18:26:32 server kernel: CPU: L1 I Cache: 64K (64 bytes/line), D cache 64K (64 bytes/line)

Jul 29 18:26:32 server kernel: CPU: L2 Cache: 1024K (64 bytes/line)

Jul 29 18:26:32 server kernel: CPU 2/2 -> Node 1

Jul 29 18:26:32 server pcscd: pcscdaemon.c:507:main() pcsc-lite 1.4.4 daemon ready.

Jul 29 18:26:32 server kernel: CPU: Physical Processor ID: 1

Jul 29 18:26:32 server kernel: CPU: Processor Core ID: 0

Jul 29 18:26:32 server kernel: Dual Core AMD Opteron(tm) Processor 275 stepping 02

Jul 29 18:26:32 server kernel: CPU 2: Syncing TSC to CPU 0.

Jul 29 18:26:32 server kernel: CPU 2: synchronized TSC with CPU 0 (last diff -122 cycles, maxerr 1125 cycles)

Jul 29 18:26:32 server kernel: SMP alternatives: switching to SMP code

Jul 29 18:26:32 server kernel: Booting processor 3/4 APIC 0x3

Jul 29 18:26:32 server kernel: Initializing CPU#3

Jul 29 18:26:32 server kernel: Calibrating delay using timer specific routine.. 4386.89 BogoMIPS (lpj=2193445)

Jul 29 18:26:32 server kernel: CPU: L1 I Cache: 64K (64 bytes/line), D cache 64K (64 bytes/line)

Jul 29 18:26:32 server kernel: CPU: L2 Cache: 1024K (64 bytes/line)

Jul 29 18:26:32 server kernel: CPU 3/3 -> Node 1

Jul 29 18:26:32 server kernel: CPU: Physical Processor ID: 1

Jul 29 18:26:32 server kernel: CPU: Processor Core ID: 1
Jul 29 18:26:32 server kernel: Dual Core AMD Opteron(tm) Processor 275 stepping 02
Jul 29 18:26:32 server kernel: CPU 3: Syncing TSC to CPU 0.
Jul 29 18:26:32 server kernel: CPU 3: synchronized TSC with CPU 0 (last diff -121 cycles, maxerr 1124 cycles)
Jul 29 18:26:32 server kernel: Brought up 4 CPUs
Jul 29 18:26:32 server kernel: testing NMI watchdog ... OK.

/var/log/messages (Second boot, 2.6.18-53.1.19.el5.028stab053.14)

Jul 29 18:53:25 ovz3 kernel: Booting processor 1/4 APIC 0x1
Jul 29 18:53:25 ovz3 kernel: Initializing CPU#1
Jul 29 18:53:25 ovz3 kernel: Calibrating delay using timer specific routine.. 4386.89 BogoMIPS (lpj=2193445)
Jul 29 18:53:25 ovz3 kernel: CPU: L1 I Cache: 64K (64 bytes/line), D cache 64K (64 bytes/line)
Jul 29 18:53:25 ovz3 kernel: CPU: L2 Cache: 1024K (64 bytes/line)
Jul 29 18:53:25 ovz3 kernel: CPU 1/1 -> Node 0
Jul 29 18:53:25 ovz3 kernel: CPU: Physical Processor ID: 0
Jul 29 18:53:25 ovz3 kernel: CPU: Processor Core ID: 1
Jul 29 18:53:25 ovz3 kernel: Dual Core AMD Opteron(tm) Processor 275 stepping 02
Jul 29 18:53:25 ovz3 kernel: CPU 1: Syncing TSC to CPU 0.
Jul 29 18:53:25 ovz3 kernel: CPU 1: synchronized TSC with CPU 0 (last diff 2 cycles, maxerr 592 cycles)
Jul 29 18:53:25 ovz3 kernel: Booting processor 2/4 APIC 0x2
Jul 29 18:53:25 ovz3 kernel: Initializing CPU#2
Jul 29 18:53:25 ovz3 kernel: Calibrating delay using timer specific routine.. 4386.89 BogoMIPS (lpj=2193446)
Jul 29 18:53:25 ovz3 kernel: CPU: L1 I Cache: 64K (64 bytes/line), D cache 64K (64 bytes/line)
Jul 29 18:53:25 ovz3 kernel: CPU: L2 Cache: 1024K (64 bytes/line)
Jul 29 18:53:25 ovz3 kernel: CPU 2/2 -> Node 1
Jul 29 18:53:25 ovz3 kernel: CPU: Physical Processor ID: 1
Jul 29 18:53:25 ovz3 kernel: CPU: Processor Core ID: 0
Jul 29 18:53:25 ovz3 kernel: Dual Core AMD Opteron(tm) Processor 275 stepping 02
Jul 29 18:53:25 ovz3 kernel: CPU 2: Syncing TSC to CPU 0.
Jul 29 18:53:25 ovz3 kernel: CPU 2: synchronized TSC with CPU 0 (last diff -121 cycles, maxerr 1127 cycles)
Jul 29 18:53:25 ovz3 kernel: Booting processor 3/4 APIC 0x3
Jul 29 18:53:25 ovz3 kernel: Initializing CPU#3
Jul 29 18:53:25 ovz3 kernel: Calibrating delay using timer specific routine.. 4386.89 BogoMIPS (lpj=2193447)
Jul 29 18:53:25 ovz3 kernel: CPU: L1 I Cache: 64K (64 bytes/line), D cache 64K (64 bytes/line)
Jul 29 18:53:25 ovz3 kernel: CPU: L2 Cache: 1024K (64 bytes/line)
Jul 29 18:53:25 ovz3 kernel: CPU 3/3 -> Node 1
Jul 29 18:53:26 ovz3 kernel: CPU: Physical Processor ID: 1
Jul 29 18:53:26 ovz3 kernel: CPU: Processor Core ID: 1
Jul 29 18:53:26 ovz3 kernel: Dual Core AMD Opteron(tm) Processor 275 stepping 02
Jul 29 18:53:26 ovz3 kernel: CPU 3: Syncing TSC to CPU 0.

Jul 29 18:53:26 ovz3 kernel: CPU 3: synchronized TSC with CPU 0 (last diff -122 cycles, maxerr 1127 cycles)
Jul 29 18:53:26 ovz3 kernel: Brought up 4 CPUs
Jul 29 18:53:26 ovz3 kernel: testing NMI watchdog ... CPU#0: NMI appears to be stuck (0->0)!

[root@ovz3 ~]# cat /proc/cpuinfo

```
processor      : 0
vendor_id     : AuthenticAMD
cpu family    : 15
model         : 33
model name    : Dual Core AMD Opteron(tm) Processor 275
stepping      : 2
cpu MHz       : 2193.812
cache size    : 1024 KB
physical id   : 0
siblings      : 2
core id       : 0
cpu cores     : 2
fpu           : yes
fpu_exception : yes
cpuid level   : 1
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 lm 3dnowext 3dnow pni lahf_lm cmp_legacy
bogomips      : 1994.04
TLB size      : 1024 4K pages
clflush size   : 64
cache_alignment : 64
address sizes  : 40 bits physical, 48 bits virtual
power management: ts fid vid ttp
```

```
processor      : 1
vendor_id     : AuthenticAMD
cpu family    : 15
model         : 33
model name    : Dual Core AMD Opteron(tm) Processor 275
stepping      : 2
cpu MHz       : 2193.812
cache size    : 1024 KB
physical id   : 0
siblings      : 2
core id       : 1
cpu cores     : 2
fpu           : yes
fpu_exception : yes
cpuid level   : 1
```

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 lm 3dnowext 3dnow pni lahf_lm cmp_legacy
bogomips : 1994.04
TLB size : 1024 4K pages
clflush size : 64
cache_alignment : 64
address sizes : 40 bits physical, 48 bits virtual
power management: ts fid vid ttp

processor : 2
vendor_id : AuthenticAMD
cpu family : 15
model : 33
model name : Dual Core AMD Opteron(tm) Processor 275
stepping : 2
cpu MHz : 2193.812
cache size : 1024 KB
physical id : 1
siblings : 2
core id : 0
cpu cores : 2
fpu : yes
fpu_exception : yes
cpuid level : 1
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 lm 3dnowext 3dnow pni lahf_lm cmp_legacy
bogomips : 1994.04
TLB size : 1024 4K pages
clflush size : 64
cache_alignment : 64
address sizes : 40 bits physical, 48 bits virtual
power management: ts fid vid ttp

processor : 3
vendor_id : AuthenticAMD
cpu family : 15
model : 33
model name : Dual Core AMD Opteron(tm) Processor 275
stepping : 2
cpu MHz : 2193.812
cache size : 1024 KB
physical id : 1
siblings : 2
core id : 1
cpu cores : 2
fpu : yes

fpu_exception : yes
cpuid level : 1
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 lm 3dnowext 3dnow pn1 lah_f_lm cmp_legacy
bogomips : 1994.04
TLB size : 1024 4K pages
clflush size : 64
cache_alignment : 64
address sizes : 40 bits physical, 48 bits virtual
power management: ts fid vid ttp

Subject: Re: bogomips != bogomips in /proc/cpuinfo
Posted by [kir](#) on Fri, 01 Aug 2008 12:10:20 GMT

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Does it affect you in any way, or you just don't like the fact that the numbers in dmesg and in /proc/cpuinfo do not match?

Subject: Re: bogomips != bogomips in /proc/cpuinfo
Posted by [maratrus](#) on Fri, 01 Aug 2008 12:10:36 GMT

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Hi,

it seems to be not OpenVZ problem.
Have you compiled your kernel by yourself?
If yes please attach the .config file.
Also please attach lsmod output and "uname -a".

bogomips could change due to the clock rate or cpu freq changing.

Anyway, do you have a chance to try non OpenVZ 2.6.18 RHEL based kernel?

Subject: Re: bogomips != bogomips in /proc/cpuinfo
Posted by [sspt](#) on Fri, 01 Aug 2008 12:20:39 GMT

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kir wrote on Fri, 01 August 2008 13:10 Does it affect you in any way, or you just don't like the fact that the numbers in dmesg and in /proc/cpuinfo do not match?
As it's a production node and usually has around 400000 cpu units, at this time it's overcommitted (about 260000 of 200000 cpuunits)

maratrus wrote on Fri, 01 August 2008 13:10Hi,

it seems to be not OpenVZ problem.

Have you compiled your kernel by yourself?

If yes please attach the .config file.

Also please attach lsmod output and "uname -a".

bogomips could change due to the clock rate or cpu freq changing.

Anyway, do you have a chance to try non OpenVZ 2.6.18 RHEL based kernel?

I'm using the precompiled binnaries.

I'll move the VE's off it and atemp to run the CentOS stock kernel to check if it solves the problem.

Subject: Re: bogomips != bogomips in /proc/cpuinfo

Posted by [sspt](#) on Fri, 01 Aug 2008 13:22:13 GMT

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Quote:

```
[root@ovz3 ~]# uname -a
```

```
Linux ovz3.public-network.com 2.6.18-53.1.19.el5.028stab053.14 #1 SMP Thu May 8 16:29:13
```

```
MSD 2008 x86_64 x86_64 x86_64 GNU/Linux
```

```
[root@ovz3 ~]# lsmod
```

Module	Size	Used by
vzethdev	46864	0
vznetdev	56712	22
simfs	38296	11
vzrst	170024	0
ip_nat	53520	1 vzrst
vzcpt	147512	0
ip_conntrack	100884	9 vzrst,ip_nat,vzcpt
nfnetlink	40392	2 ip_nat,ip_conntrack
tun	46336	2 vzrst,vzcpt
vzmon	80528	15 vzethdev,vznetdev,vzrst,vzcpt
xt_tcpudp	36224	0
xt_length	35072	0
ipt_ttl	34816	0
xt_tcpmss	35328	0
ipt_TCPMSS	37376	0
iptable_mangle	37888	11
iptable_filter	37760	11
xt_multiport	36352	0
xt_limit	36352	0
ipt_tos	34560	0
ipt_REJECT	38784	0
ip_tables	57568	2 iptable_mangle,iptable_filter
x_tables	52616	10 xt_tcpudp,xt_length,ipt_ttl,xt_tcpmss,ipt_TCPMSS,xt_multiport

```

t,xt_limit,ipt_tos,ipt_REJECT,ip_tables
vzdquota      79336 11 [permanent]
autofs4        57992 2
hidp           83584 2
rfcomm         104872 0
l2cap          89216 10 hidp,rfcomm
bluetooth      118660 5 hidp,rfcomm,l2cap
sunrpc         200008 1
ipv6           422368 98 vzrst,vzcpt,vzmon
vzdev          36872 6 vzethdev,vznetdev,vzmon,vzdquota
cpufreq_ondemand 40080 1
dm_mirror      59912 0
dm_multipath   52368 0
dm_mod         95952 2 dm_mirror,dm_multipath
video          51208 0
sbs            49856 0
backlight      39808 0
i2c_ec         38528 1 sbs
button         40480 0
battery        43784 0
asus_acpi      50724 0
acpi_memhotplug 40068 0
ac             38664 0
lp             47056 0
sg             69672 0
i2c_amd756     40324 0
i2c_amd8111    39168 0
shpchp        70700 0
floppy         95400 0
i2c_core       56064 3 i2c_ec,i2c_amd756,i2c_amd8111
ide_cd         73632 0
k8_edac        50112 0
parport_pc     62248 1
pcspkr        36224 0
edac_mc        58592 1 k8_edac
k8temp         39040 0
tg3            141316 0
serio_raw      40452 0
parport        73740 2 lp,parport_pc
amd_rng        35976 0
cdrom          68904 1 ide_cd
hwmon          36488 1 k8temp
aic79xx        202456 3
scsi_transport_spi 59776 1 aic79xx
sd_mod         56192 4
scsi_mod       186296 4 sg,aic79xx,scsi_transport_spi,sd_mod
ext3           168336 2
jbd            102256 1 ext3

```

uhci_hcd	57368	0
ohci_hcd	54428	0
ehci_hcd	65164	0

Subject: Re: bogomips != bogomips in /proc/cpuinfo
Posted by [maratrus](#) on Fri, 01 Aug 2008 14:38:53 GMT
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Quote:
cpufreq_ondemand 40080 1

it could dynamically increase/decrease the speed.

Subject: Re: bogomips != bogomips in /proc/cpuinfo
Posted by [maratrus](#) on Fri, 01 Aug 2008 14:43:17 GMT
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Hi,

so you have a possibility to show? :

Quote:
cat /sys/devices/system/cpu/cpu0/cpufreq/scaling_governor

Subject: Re: bogomips != bogomips in /proc/cpuinfo
Posted by [sspt](#) on Fri, 01 Aug 2008 15:32:17 GMT
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Quote:
[root@ovz3 ~]# cat /sys/devices/system/cpu/cpu0/cpufreq/scaling_governor
ondemand

Although the cpu speed is the same as usual, it's just affecting bogomips

Quote:
[root@ovz3 ~]# cat /proc/cpuinfo | grep MHz
cpu MHz : 2193.812
cpu MHz : 2193.812
cpu MHz : 2193.812
cpu MHz : 2193.812
[root@ovz3 ~]#

Subject: Re: bogomips != bogomips in /proc/cpuinfo
Posted by [maratrus](#) on Fri, 01 Aug 2008 17:33:11 GMT
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Hi,

could you possibly conduct the following experiment

```
cat /sys/devices/system/cpu/cpu*/cpufreq/scaling_available_governors
```

if performance is available

```
echo "performance" > /sys/devices/system/cpu/cpu*/cpufreq/scaling_governor
```

anything change?

Subject: Re: bogomips != bogomips in /proc/cpuinfo
Posted by [sspt](#) on Fri, 01 Aug 2008 17:58:24 GMT
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Problem solved

```
[root@ovz3 devices]# echo "performance" >
/sys/devices/system/cpu/cpu0/cpufreq/scaling_governor
[root@ovz3 devices]# echo "performance" >
/sys/devices/system/cpu/cpu1/cpufreq/scaling_governor
[root@ovz3 devices]# echo "performance" >
/sys/devices/system/cpu/cpu2/cpufreq/scaling_governor
[root@ovz3 devices]# echo "performance" >
/sys/devices/system/cpu/cpu3/cpufreq/scaling_governor
```

```
[root@ovz3 devices]# cat /proc/cpuinfo | grep bogomips
bogomips      : 4386.89
bogomips      : 4386.89
bogomips      : 4386.89
bogomips      : 4386.89
```

Thank you
