Subject: Re: [2.6.22] negative time jump
Posted by vaverin on Tue, 31 Jul 2007 04:43:09 GMT
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john stultz wrote:
> On 7/29/07, Vasily Averin <vvs@sw.ru> wrote:
>> I've investigated why my testnode freezes. When I found that node is freezed
>> again I've started to press Sysrq keys and noticed the following negative time jump.
>>
>> Could anybody please help me to understand the reasons of this issue?
>>
>> --- VvS comment: some pre-history: node boot
>> Jul 27 13:58:10 ts28 Linux version 2.6.22 (vvs@vvs.work.ve) (gcc version 3.4.6
>> 20060404 (Red Hat 3.4.6-3)) #11 SMP Fri Jul 27 12:47:45 MSD 2007
>> Jul 27 13:58:10 ts28 Command line: ro root=LABEL=/1 console=ttyS0,115200
>> console=tty debug silencelevel=8 crashkernel=128M@128M acpc=noirq clocksource=tsc
>
> clocksource=tsc?
>
> I suspect you're forcing the clocksource as its not selected by
> default. Could you provide dmesg output without that option. It might
> shed some light as to why the clocksource isn't chosen.

Default clocksource was acpi-pm. But the node have similar behavior when I've used this clocksource. (please look at the following logs)

Originally I've investigated SATA-related issue and noticed some strange with timers. When I've reproduced situation again I've pressed Alt+Sysrq+Q keys and noticed that it shows incorrect time (it shows 431968 sec from booting but according to the serial console timestamps it should be ~445954 sec). Then you can see that time was jumped back, next timestamp is 431965 sec, 3 sec back.

> It may very well be your TSCs are not synched or are otherwise not
> reliable for timekeeping , and thus time is not consistent between
> cpus.

However IMHO it cannot explain time loops (~4400 sec) that I'm observing right now.

thank you,
Vasily Averin

PS. You can look at the other logs and find more details in my attachments to http://bugzilla.kernel.org/show_bug.cgi?id=8650