

freebsd-current: Re: TSC instead of ACPI: powerd doesn't work anymore (to be expected?)

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Source: <http://unix.derkeiler.com/Mailing-Lists/FreeBSD/current/2005-10/1238.html>

From: Scott Long (scottl_at_samsco.org)

Date: 10/31/05

Date: Mon, 31 Oct 2005 06:29:45 -0700
To: Robert Watson <rwatson@FreeBSD.org>

Robert Watson wrote:

>
> *On Sun, 30 Oct 2005, David O'Brien wrote:*
>
>>> *ACPI-fast requires an ioport read which takes about 1us (according to*
>>> *Google). Do that 1000 times a second and you have each CPU spending*
>>> *1% of its time doing nothing but reading the clock. Yikes.*
>>
>>
>> *But we've lived with using the ACPI timercounter (vs. TSC) for quite a*
>> *while now. Why all of a sudden are the authors of this thread having*
>> *an issue with it now. I know about the recent MySQL thread – but with*
>> *the TSC being untrustable on MP and power managed systems, why is*
>> *there such a desire to use the TSC?*
>
>
> *Because in the past few weeks, several developers have noticed that if*
> *you change timercounters from ACPI-fast to TSC, you get significant*
> *performance boosts on real-world workloads. Drew reported this a couple*
> *of weeks ago on net@ after looking at loopback network performance, and*
> *I suggested he frob the timecounter on his system, which resulted in a*
> *significant measured performance increase. Then recently it was*
> *reported that MySQL also saw a significant boost from faster*
> *timekeeping, as it performs frequent time measurement.*
>

[...]

Another thing to keep in mind is that now is an excellent time to start thinking about 7.0 and experimenting and validating possible improvements. Maybe we'll come to the conclusion that the TSC still isn't appropriate to use, or is only appropriate for certain scenarios, but unless we work with it now, we'll never know.

Scott

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freebsd-current@freebsd.org mailing list

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