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Subject: Re: [PATCH 1/3] Introduce cpuid\_on\_cpu() and cpuid\_eax\_on\_cpu()  
Posted by [Andi Kleen](#) on Tue, 03 Apr 2007 13:42:50 GMT

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> > Both powernow-k8 and cpuid attempt to schedule  
> > to the target CPU so they should already run there. But it is some other CPU,  
> > but when they ask your \_on\_cpu() functions they suddenly get a "real" CPU?  
> > Where is the difference between these levels of virtualness?  
>  
> \*\_on\_cpu functions do some work on given physical CPU.  
> set\_cpus\_allowed() in openvz operates on VCPU level, so process doing  
> set\_cpus\_allowed() still could be scheduled anywhere.

Ok so you have multiple levels.

> > Also it has weird semantics. For example if you have multiple  
> > virtual CPUs mapping to a single CPU then would the powernow-k8 driver  
> > try to set the frequency multiple times on the same physical CPU?  
>  
> If core cpufreq locking is OK, why would it?

It won't know about multiple CPUs mapping to a single CPU.

> apply\_microcode() looks small enough to convert it to IPIs, but so far  
> nobody asked for microcode updates in openvz.

Well if they try it they will probably have problems.

> > Before adding any hacks like this I think your vcpu concept  
> > needs to be discussed properly on l-k. For me it doesn't look like it is  
> > something good right now though.  
>  
> Andi, I think it all relies on correctness of core cpufreq locking.

I have my doubts it will cope with you changing all reasonable expected semantics under it.

-Andi

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