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Subject: Re: Loadable cgroup subsystems  
Posted by [Paul Menage](#) on Tue, 08 Apr 2008 05:43:43 GMT  
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On Mon, Apr 7, 2008 at 10:39 PM, Nikanth Karthikesan <[knikanth@suse.de](mailto:knikanth@suse.de)> wrote:

>  
> Why not provide a interface to add subsystems at run-time instead?  
> Are there any reason for not letting a subsystem to be implemented as a  
> loadable module? IOW make cgroups usable by modules?  
>

Having all the subsystems declared at compile time makes a lot of things (number of subsystems, size of `css_set`, etc) statically known, which makes the code clearer and more importantly eliminates a bunch of locking/synchronization overhead.

It would be possible to make cgroups support dynamically-loaded subsystems, and in fact, some of the earliest cgroups patches did support this, for a predefined max number of subsystems. But it would introduce more complexity and overhead.

I'd rather not add support for this without a strong case of a subsystem that really needs to be dynamically loaded.

Paul

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Containers mailing list  
[Containers@lists.linux-foundation.org](mailto:Containers@lists.linux-foundation.org)  
<https://lists.linux-foundation.org/mailman/listinfo/containers>

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Subject: Re: Loadable cgroup subsystems  
Posted by [Balbir Singh](#) on Tue, 08 Apr 2008 09:07:12 GMT  
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Paul Menage wrote:

> On Mon, Apr 7, 2008 at 10:39 PM, Nikanth Karthikesan <[knikanth@suse.de](mailto:knikanth@suse.de)> wrote:  
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> I'd rather not add support for this without a strong case of a  
> subsystem that really needs to be dynamically loaded.  
>

I agree with most of what you just said. The biggest advantage I see of dynamic modules is that they can be unloaded/loaded on demand. The biggest disadvantage is that they come in much later after system initialization and might not be fully aware of the state of the system when the specific controller is loaded. It is trade-off, we need to see if it is worth doing.

--

Warm Regards,  
Balbir Singh  
Linux Technology Center  
IBM, ISTL

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