Subject: Re: Summary of resource management discussion
Posted by Srivatsa Vaddagiri on Fri, 16 Mar 2007 01:40:24 GMT
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On Thu, Mar 15, 2007 at 12:12:50PM -0700, Paul Menage wrote:
> There are some things that benefit from having an abstract
> container-like object available to store state, e.g. "is this
> container deleted?", "should userspace get a callback when this
> container is empty?".

IMO we can still get these bits of information using nsproxy itself (I admit I haven't looked at the callback requirement yet).

But IMO a bigger use of 'struct container' object in your patches is to store hierarchical information and avoid /repeating/ that information in each resource object (struct cpuset, struct cpu_limit, struct rss_limit etc) a 'struct container' is attached to (as pointed out here : http://lkml.org/lkml/2007/3/7/356). However I don't know how many controllers will ever support such hierarchical res mgmt and thats why I said option 3 [above URL] may not be a bad compromise.

Also if you find a good answer for my earlier question "what more task-grouping behavior do you want to implement using an additional pointer that you can't reusing ->task_proxy", it would drive home the need for additional pointers/structures.

> >> >a. Paul Menage's patches:
> >> >
> >> > (tsk->containers->container[cpu_ctlr.subsys_id] - X)->cpu_limit
> >>
> >> So what's the '-X' that you're referring to
> >
> >Oh ..that's to seek pointer to begining of the cpulimit structure (subsys
> >pointer in 'struct container' points to a structure embedded in a larger
> >structure. -X gets you to point to the larger structure).
>
> OK, so shouldn't that be listed as an overhead for your rcfs version
> too?

X shouldn't be needed in rcfs patches, because "->ctlr_data" in nsproxy can directly point to the larger structure (there is no 'struct container_subsys_state' equivalent in rcfs patches).

Container patches:

 (tsk->containers->container[cpu_ctlr.subsys_id] - X)->cpu_limit

rcfs:

tsk->nsproxy->ctlr_data[cpu_ctlr.subsys_id]->cpu_limit

> >Yes me too. But maybe to keep in simple in initial versions, we should
> >avoid that optimisation and at the same time get statistics on duplicates?.
>
> That's an implementation detail - we have more important points to
> agree on right now ...

yes :)

Eric, did you have any opinion on this thread?

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Regards,
vatsa

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