Subject: Re: [ckrm-tech] [patch00/05]: Containers(V2)- Introduction
Posted by Chandra Seetharaman on Wed, 20 Sep 2006 19:35:23 GMT
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On Wed, 2006-09-20 at 12:25 -0700, Paul Menage wrote:
> On 9/20/06, Chandra Seetharaman <sekharan@us.ibm.com> wrote:
> >
> > We had this discussion more than 18 months back and concluded that it is
> > not the right thing to do. Here is the link to the thread:
>
> Even if the resource control portions aren't totally compatible,
> having two separate process container abstractions in the kernel is
> sub-optimal, both in terms of efficiency and userspace management. How
> about splitting out the container portions of cpuset from the actual
> resource control, so that CKRM/RG can hang off of it too? Creation of
> a cpuset or a resource group would be driven by creation of a
> container; at fork time, a task inherits its parent's container, and
> hence its cpuset and/or resource groups.
>
> At its most crude, this could be something like:
>
> struct container {
> #ifdef CONFIG_CPUSETS
>   struct cpuset cs;
> #endif
> #ifdef CONFIG_RES_GROUPS
>   struct resource_group rg;
> #endif
> };

Won't it restrict the user to choose one of these, and not both.

It will also prevent the possibility of having resource groups within a
cpuset.

>
> but at least it would be sharing some of the abstractions.
>
> Paul
>
> -- -------------
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> _____
> ckrm-tech mailing list
> https://lists.sourceforge.net/lists/listinfo/ckrm-tech

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-------------------------------------------------------- ----------
    Chandra Seetharaman            | Be careful what you choose....
          - sekharan@us.ibm.com    |      .......you may get it.
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Subject: Re: [ckrm-tech] [patch00/05]: Containers(V2)- Introduction
Posted by Paul Menage on Wed, 20 Sep 2006 19:57:10 GMT

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On 9/20/06, Chandra Seetharaman <sekharan@us.ibm.com> wrote:
> > At its most crude, this could be something like:
> >
> > struct container {
> > #ifdef CONFIG_CPUSETS
> >   struct cpuset cs;
> > #endif
> > #ifdef CONFIG_RES_GROUPS
> >   struct resource_group rg;
> > #endif
> > };
>
> Won't it restrict the user to choose one of these, and not both.

Not necessarily - you could have both compiled in, and each would only
worry about the resource management that they cared about - e.g. you
could use the memory node isolation portion of cpusets (in conjunction
with fake numa nodes/zones) for memory containment, but give every
cpuset access to all CPUs and control CPU usage via the resource
groups CPU controller.

The generic code would take care of details like container
creation/destruction (with appropriate callbacks into cpuset and/or
res_group code, tracking task membership of containers, etc.

Paul