Subject: Re: Re: containers and cgroups mini-summit @ Linux Plumbers Posted by Tejun Heo on Thu, 26 Jul 2012 19:44:41 GMT

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Hey, Eric.

On Thu, Jul 26, 2012 at 12:19:12PM -0700, Eric W. Biederman wrote:

- > > No, any attempt to build namespace support into cgroup core code will
- >> be nacked with strong prejudice.

>

- > The cgroup code was only merged with the understanding that this support
- > was simple to add and it would be added. I am sorry that no one had
- > the sense to follow up and make certain that promise was not fullfilled.

Good chunk of cgroup is messy and I'm likely to continue to break a lot of whatever promises that have been made. :)

> > Thankfully, procfs is going the FUSE way.

>

- > No procfs is not going the FUSE way. Hacks for programs that misuse
- > information in procfs is going the FUSE way.

All those were proposed to be solved by "teaching" kernel procfs how to present itself differently.

- > The best example is there currently is not a good method for programs
- > to figure out how parellel it is productive to be so the programs
- > read /proc/cpuinfo and get the count of cpus. Control groups can
- > limit you to fewer cpus but those programs have figured that out yet.

Yeah, and you can handle that too nicely with FUSE. More on this later.

- > But ultimately fuse for procfs is about the rare case where people
- > want to lie to applications, because it is easier to lie to applications
- > then to disabuse the applications of their mistaken asumptions.

I don't think so. They are necessary parts of representing a properly scoped environment.

> I have not seen a single suggest that any of the other procfs bits > can go away.

I think I made that a couple times now. I definitely intend to push things that way. Or, at least, I'll bark as hard as I can against adding more namespace stuff to system pseudo filesystems.

> > and I hope in time we could convert sysfs to a similar mechanism and

> > deprecate the in-kernel support.
I have nothing that even suggests there is a reasonable possibility ofusing fuse to deprecate any of the proc or sysfs support.
Why not? If there's some deficiency in FUSE or notification mechanisms in pseudo FSes, let's fix them.
> > So, no, no, no, no, no, no, no, no, no, n
> Bahahahahahaha! :P
:)
 I sort of wish I had the energy to tackle this. As it is control groups hierarchies have very severe usablilty problems supporting one of their core use cases.
 We should have our interfaces designed such that it is possible to run nested init's without hacks, and the only significant piece left on the hacks pile is control groups.
Control group hiearchies are are really strange piece of work whosedesign makes very little sense to me.
cgroupfs is riddled with confused designs but this is not it. The confusion is that namespace should play a major role in the design of system pseudo filesystems and that it can be achieved by playing peekaboo with dentries.
It obfuscates the code for niche use case - which in itself could be acceptable if that's the only / best way to achieve that - while not even being able to serve the said use case properly.
Thanks.
tejun