
Subject: Re: [PATCH] pidns: Place under CONFIG_EXPERIMENTAL (take 2)

Posted by [Adrian Bunk](#) on Sat, 27 Oct 2007 02:04:08 GMT

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On Fri, Oct 26, 2007 at 07:31:04PM -0600, Eric W. Biederman wrote:

> Adrian Bunk <bunk@kernel.org> writes:

>

> > CONFIG_EXPERIMENTAL is a weak hint that some code might not (yet) be in

> > a perfect state, but it does not have any semantics regarding

> > userspace ABIs.

>

> Code that might not (yet) be in a perfect state sums it up pretty

> well. There is not plan or expectation to change magic numbers or

> things like that but the behavior of the code may change as bug and

> such are fixed.

>

> > A dependency on BROKEN seems more appropriate.

>

> Since you can't select that it seems a little strong.

>

> ...

>

> One of the things we talked about at the kernel summit is how

> almost inevitably when new user space interfaces are introduced

> there are problems. Someone over looks something, something

> gets changed to get through the review something like that. There was

> discussion but no consensus on how do introduce something like that

> but still allow our selves the ability to fix it. Keeping the

> code under CONFIG_EXPERIMENTAL is the best suggest I have seen

> so far. Even if it is slightly expanding the definition of

> CONFIG_EXPERIMENTAL.

>

> Every place the kernel uses pids is a huge scope. It is very

> easy to miss something with a scope that wide. So the engineer

> in me says chances of us missing something are pretty huge.

> Especially since I know we have bugs in -rc1.

>

> If it turns out that making multiple pid namespaces work is

> hopeless we can always change the dependency to BROKEN later.

No, we can't after 2.6.24 got released.

Let me make an example:

- looking at the timelines, e.g. Ubuntu 8.04 LTS is likely to ship with 2.6.24

- this experimental feature might be enabled there

- this Ubuntu release with this kernel will be supported and used for five years

> As for ABI and behavioral characteristics currently that is
> largely well defined. You are supposed to get the exact
> same thing as you would on the system if you only had a
> single pid namespace. The places where we have questionable
> semantics is in the intersections between namespaces.
>
> That is not an area I am willing to stand up and say we got
> it perfect the first time, I'm going to support our behavior
> quirks forever if I can find soon enough. Very few applications
> will care, and the differences might really matter at some point.
>
> So does any one have any better suggestions on how to deal
> with features that are enough work you aren't going to get them
> perfect the first time. You need the code merged or else you
> can not complete the feature (too many dependencies through out the
> code). You want early adopters to start playing with the feature
> so you can get feed back and you can test to make certain everything
> is going ok. You want to retain the ability to fix implementation
> details even if those details are user visible, for a time until
> things seem as good as they can reasonably get.
>
> Roughly that sounds like CONFIG_EXPERIMENTAL to me. But I would
> be happy to hear if someone has a better idea.

There is a difference between "complete the feature" and "early adopters to start playing with the feature" on the one side, and making something available in a released kernel on the other side.

For development and playing with it it can depend on BROKEN (perhaps with the dependency removed through the first -rc kernels), but as soon as it's available in a -final kernel the ABI is fixed.

> Eric

cu
Adrian

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"Is there not promise of rain?" Ling Tan asked suddenly out of the darkness. There had been need of rain for many days.

"Only a promise," Lao Er said.

Pearl S. Buck - Dragon Seed

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