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Subject: Re: Network namespaces a path to mergable code.  
Posted by [Herbert Poetzl](#) on Wed, 28 Jun 2006 17:40:06 GMT  
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On Wed, Jun 28, 2006 at 09:22:40PM +0400, Andrey Savochkin wrote:

> Hi Eric,

>

> On Wed, Jun 28, 2006 at 10:51:26AM -0600, Eric W. Biederman wrote:

> > Andrey Savochkin <saw@swsoft.com> writes:

> >

> > > One possible option to resolve this question is to show 2

> > > relatively short patches just introducing namespaces for sockets

> > > in 2 ways: with explicit function parameters and using implicit

> > > current context. Then people can compare them and vote. Do you

> > > think it's worth the effort?

> >

> > Given that we have two strong opinions in different directions I

> > think it is worth the effort to resolve this.

>

> Do you have time to extract necessary parts of your old patch? Or you

> aren't afraid of letting me draft an alternative version of socket

> namespaces basing on your code? :)

>

> > In a slightly different vein your second patch introduced a lot of

> > `#ifdef CONFIG_NET_NS` in C files. That is something we need to look

> > closely at.

> >

> > So I think the abstraction that we use to access per network

> > namespace variables needs some work if we are going to allow the

> > ability to compile out all of the namespace code. The explicit

> > versus implicit lookup is just one dimension of that problem.

> This is a good comment.

>

> Those `ifdef`'s mostly correspond to places where we walk over lists and

> need to filter-out entities not belonging to a specific namespace.

> Those places about the same in your and my implementation. We can

> think what we can do with them. One trick that I used on several

> occasions is `net_ns_same` macro which doesn't evaluate its arguments if

> `CONFIG_NET_NS` not defined, and thus can be used without `ifdef`'s.

yes, I think almost all of those cases can be avoided  
while making the code even more readable by using  
proper preprocessor (or even inline) mechanisms

> Returning to implicit vs explicit function arguments, I believe that

> implicit arguments are more promising in having zero impact on the

> code when `CONFIG_NET_NS` is disabled. Functions like `inet_addr_type`

> will translate into exactly the same code as they did without net

> namespace patches.

maybe a preprocessor wrapper can help here too ...

> > >> I'm still curious why many of those chunks can't use existing helper

> > >> functions, to be cleaned up.

> > >

> > > What helper functions are you referring to?

> >

> > Basically most of the device list walker functions live in.

> > net/core/dev.c

> >

> > I don't know if the cases you fixed could have used any of those

> > helper functions but it certainly has me asking that question.

> >

> > A general pattern that happens in cleanups is the discovery

> > that code using an old interface in a problematic way really

> > could be done much better another way. I didn't dig enough

> > to see if that was the case in any of the code that you changed.

>

> Well, there is obvious improvement of this kind: many protocols walk

> over device list to find devices with non-NULL protocol specific

> pointers. For example, IPv6, decnet and others do it on module

> unloading to clean up. Those places just ask for some simpler standard

> way of doing it, but I wasn't bold enough for such radical change.

> Do you think I should try?

IMHO it could not hurt to have some kind of protocol  
helper library functions or macros ...

best,  
Herbert

> Best regards

>

> Andrey