

---

Subject: Re: [patch 2/6] [Network namespace] Network device sharing by view  
Posted by [Herbert Poetzl](#) on Mon, 26 Jun 2006 22:54:40 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On Mon, Jun 26, 2006 at 03:13:17PM -0700, Ben Greear wrote:

> Eric W. Biederman wrote:

>

> > Basically it is just a matter of:

> > if (dest\_mac == my\_mac1) it is for device 1.

> > If (dest\_mac == my\_mac2) it is for device 2.

> > etc.

> >

> > At a small count of macs it is trivial to understand it will go

> > fast for a larger count of macs it only works with a good data

> > structure. We don't hit any extra cache lines of the packet,

> > and the above test can be collapsed with other routing lookup tests.

>

> I think you should do this at the layer-2 level, well before you get

> to routing. That will make the virtual mac-vlan work with arbitrary

> protocols and appear very much like a regular ethernet interface.

> This approach worked well with .1q vlans, and with my version of the

> mac-vlan module.

yes, that sounds good to me, any numbers how that  
affects networking in general (performance wise and  
memory wise, i.e. caches and hashes) ...

> Using the mac-vlan and source-based routing tables, I can give a

> unique 'interface' to each process and have each process able to bind

> to the same IP port, for instance. Using source-based routing (by

> binding to a local IP explicitly and adding a route table for that

> source IP), I can give unique default routes to each interface as

> well. Since we cannot have more than 256 routing tables, this approach

> is currently limited to around 250 virtual interfaces, but that is

> still a substantial amount.

an typically that would be sufficient IMHO, but  
of course, a more 'general' hash tag would be  
better in the long run ...

> My mac-vlan patch, redirect-device patch, and other hackings are

> consolidated in this patch:

>

> [http://www.candelatech.com/oss/candela\\_2.6.16.patch](http://www.candelatech.com/oss/candela_2.6.16.patch)

great! thanks!

best,

Herbert

> Thanks,  
> Ben  
>  
> --  
> Ben Greear <greearb@candelatech.com>  
> Candela Technologies Inc <http://www.candelatech.com>

---