
Subject: Re: strict isolation of net interfaces

Posted by [Andrey Savochkin](#) on Mon, 03 Jul 2006 14:53:50 GMT

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Sam, Serge, Cedric,

On Fri, Jun 30, 2006 at 02:49:05PM +1200, Sam Vilain wrote:

> Serge E. Hallyn wrote:

> > The last one in your diagram confuses me - why foo0:1? I would

> > have thought it'd be

> >

> > host | guest 0 | guest 1 | guest2

> > -----+-----+-----+----- -

> > | | | |
> > |-> lo <-----+--> lo0 ... | lo0 | lo0

> > | | | |
> > |-> eth0 | | |

> > | | | |
> > |-> veth0 <-----+--> eth0 | |

> > | | | |
> > |-> veth1 <-----+-----+-----+--> eth0

> > | | | |
> > |-> veth2 <-----+-----+--> eth0 |

> >

> > [...]

> >

> > So conceptually using a full virtual net device per container

> > certainly seems cleaner to me, and it seems like it should be

> > simpler by way of statistics gathering etc, but are there actually

> > any real gains? Or is the support for multiple IPs per device

> > actually enough?

> >

>

> Why special case loopback?

>

> Why not:

>

> host | guest 0 | guest 1 | guest2

> -----+-----+-----+----- -

> | | | |
> |-> lo | | |

> | | | |
> |-> vlo0 <-----+--> lo | |

> | | | |
> |-> vlo1 <-----+-----+-----+--> lo

> | | | |
> |-> vlo2 <-----+-----+--> lo |

> | | | |

```

> |-> eth0      |      |      |
> |             |      |      |
> |-> veth0 <-----+--> eth0 |      |
> |             |      |      |
> |-> veth1 <-----+-----+-----+--> eth0
> |             |      |      |
> |-> veth2 <-----+-----+--> eth0  |

```

I still can't completely understand your direction of thoughts.
 Could you elaborate on IP address assignment in your diagram, please? For example, guest0 wants 127.0.0.1 and 192.168.0.1 addresses on its lo interface, and 10.1.1.1 on its eth0 interface.
 Does this diagram assume any local IP addresses on v* interfaces in the "host"?

And the second question.
 Are vlo0, veth0, etc. devices supposed to have hard_xmit routines?

Best regards

Andrey