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Subject: Re: Re: [PATCH 2/5] net: Make rtnetlink infrastructure network namespace aware

Posted by [den](#) on Mon, 01 Oct 2007 08:26:52 GMT

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Patrick McHardy wrote:

> Eric W. Biederman wrote:

>> Patrick McHardy <kaber@trash.net> writes:

>>

>>

>>> Maybe I can save you some time: we used to do down\_trylock()  
>>> for the rtnl mutex, so senders would simply return if someone  
>>> else was already processing the queue \*or\* the rtnl was locked  
>>> for some other reason. In the first case the process already  
>>> processing the queue would also process the new messages, but  
>>> if it the rtnl was locked for some other reason (for example  
>>> during module registration) the message would sit in the  
>>> queue until the next rtnetlink sendmsg call, which is why  
>>> rtnl\_unlock does queue processing. Commit 6756ae4b changed  
>>> the down\_trylock to mutex\_lock, so senders will now simply wait  
>>> until the mutex is released and then call netlink\_run\_queue  
>>> themselves. This means its not needed anymore.

>>

>> Sounds reasonable.

>>

>> I started looking through the code paths and I currently cannot  
>> see anything that would leave a message on a kernel rtnl socket.

>>

>> However I did a quick test adding a WARN\_ON if there were any messages  
>> found in the queue during rtnl\_unlock and I found this code path  
>> getting invoked from linkwatch\_event. So there is clearly something I  
>> don't understand, and it sounds at odds just a bit from your  
>> description.

>

>

> That sounds like a bug. Did you place the WARN\_ON before or after  
> the mutex\_unlock()?

The presence of the message in the queue during rtnl\_unlock is quite possible as normal user->kernel message processing path for rtnl is the following:

```
netlink_sendmsg
  netlink_unicast
    netlink_sendskb
      skb_queue_tail
        netlink_data_ready
          rtnetlink_rcv
```

```
mutex_lock(&rtnl_mutex);  
netlink_run_queue(sk, qlen, &rtnetlink_rcv_msg);  
mutex_unlock(&rtnl_mutex);
```

so, the presence of the packet in the rtnl queue on rtnl\_unlock is normal race with a rtnetlink\_rcv for me.

Regards,  
Den

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