
Subject: [RFD] net list protected by rcu
Posted by [Daniel Lezcano](#) on Wed, 31 Oct 2007 14:42:13 GMT
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Hi,

Benjamin and I, we are currently looking for using IPV6 for the network namespaces.

There is a special case where we must browse the network namespace list to check the routes ages at a given time for garbage collecting.

```
fib6_run_gc  
=> fib6_clean_all
```

In this function we browse the network namespace list with the usual macro: `for_each_net`, which should be protected by `rtnl_lock`.

The function `fib6_run_gc` is a timer callback, that means we are called from interrupt handler. But in this case, we can not use `rtnl_lock` because it locks a mutex and this is forbidden to do that from an interrupt handler.

If we put apart the fact there is perhaps a better solution than browsing the netns list (eg. make a gc timer per namespace), can we consider to simply use the RCU to lock the network namespace list ?

So we can remove the `rtnl_lock` calls in the network namespaces and just use `rcu_read_lock` for browsing the netns list in the network code. That will be more flexible, we can use it in interrupt handler, we can nest with another `rcu_read_lock` and we don't add more locking contention for the network.

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