

## Re: shutdown node VS disconnect all hooks

**Source:** <http://unix.derkeiler.com/Mailing-Lists/FreeBSD/net/2004-05/0317.html>

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Date: Thu, 27 May 2004 16:33:28 -0700 (PDT)

To: Gleb Smirnoff <[glebius@cell.sick.ru](mailto:glebius@cell.sick.ru)>

On Fri, 28 May 2004, Gleb Smirnoff wrote:

> *Hi colleagues,*  
>  
> *I'm again with the issue about node destruction process. If you*  
> *already forgot the problem, I'll remind you: in RELENG\_4 node cuts down*  
> *all its hooks itself from shutdown method, while in HEAD it is done*  
> *in ng\_rmnode() \_before\_ calling shutdown method. This breaks*  
> *ng\_tee behavior, and as I have noted, having hooks connected in*  
> *shutdown method may be useful sometimes.*  
>  
> *OK, If we destroy node in such a sequence*  
>  
> *1. nodes shutdown method*  
> *2. ng\_destroy\_hook() on all hooks*  
> *3. ng\_flush\_input\_queue()*  
>  
> *in some cases we may have node be lost when its shutdown method calls*  
> *NG\_NODE\_UNREF. Ok, I have tried to put one more ref on node just before*  
> *calling its shutdown method. Seems like it works! However we may catch*  
> *panic in nodes which do not expect that ng\_type\_disconnect() may*  
> *be called after ng\_type\_shutdown(). Since RELENG\_4 the following nodes*  
> *had been changed to don't expect this sequence:*  
>  
> *ng\_socket*  
> *ng\_atmllc*  
> *ng\_bridge*  
> *ng\_eiface*  
> *ng\_etf*  
> *ng\_ether*  
> *ng\_frame\_relay*  
> *ng\_gif*  
> *ng\_gif\_demux*  
> *ng\_iface*  
> *ng\_l2tp*  
> *ng\_lmi*

> *ng\_mppc*  
> *ng\_one2many*  
> *ng\_ppp*  
> *ng\_pppoe*  
> *ng\_pptpgre*  
> *ng\_rfc1490*  
> *ng\_source*  
> *ng\_sppp*  
> *ng\_tty*  
> *ng\_vjc*  
> *ng\_vlan*  
>  
> *They all FREE priv in shutdown method, but use it in disconnect method.*  
> *The problem can be solved by inserting ng\_cutlinks() into beginning of*  
> *shutdown method for each of above nodes like it is done in RELENG\_4.*  
> *Ok, we need to edit more than 20 nodes to get back ng\_tees behavior. I'm*  
> *sure you don't like it :)*

there are other reasons why this can not work.  
That is why it was changed from 4.x.

>  
> *So, what about adding one more netgraph method into struct ng\_type, say*  
> *ng\_preshutdown\_t? This method is called first in ng\_rmnode(), and then*  
> *current shutdown sequence is followed. We will set it to NULL in all existing*  
> *nodes, and create a method in ng\_tee, which calls ng\_bypass(). Future*  
> *implementations may use this method to send "goodbye" messages down hooks when*  
> *shutting down.*

That sounds like a much better solution. Node shutdown is done in 2  
parts just as node connection is done in 2 parts.

> *And this will be a POLA-friendly solution – we will not lose functionality*  
> *of RELENG\_4 (which mpd relies on), and we will not break nodes which*  
> *rely on current shutdown sequence.*  
>  
> *What's your opinion? If it is positive – I'll send patches.*  
>

That is a very workable solution.

`ng_warn_shutdown()`  
`ng_cutlinks()`  
`ng_shutdown()`

> --  
> *Totus tuus, Glebius.*  
> *GLEBIUS-RIPN GLEB-RIPE*  
>

freebsd-net: Re: shutdown node VS disconnect all hooks

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