

Re: interface renaming of an running interface

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Date: 04/07/04

Date: Wed, 7 Apr 2004 11:01:08 -0700

To: harti@freebsd.org

On Wed, Apr 07, 2004 at 11:38:45AM +0200, Harti Brandt wrote:

- >
- > *I'm currently trying to teach bsnmp to correctly handle interface*
- > *renaming. One problem that I encounter is that a process listening on*
- > *the routing socket sees an interface departure and an interface arrival*
- > *message. This cause interfaces that run stateful protocols like SNMP on*
- > *ATM interfaces to drop all connections which isn't really all that nice.*
- > *The SNMP daemon would also loose all interface state and would report*
- > *the renamed interface as a new interface with a new ifindex. This directly*
- > *violates the IF-MIB RFC, because the daemon is required to understand that*
- > *this is the same interface (the ifindex doesn't really help here, because*
- > *unloading/loading the driver gives the same behaviour). I would like to do*
- > *one of the following two things:*
- >
- > *1) disallow renaming an interface while it is up, or*
- > *2) instead of emitting a departure/arrival pair of routing messages,*
- > *generate a rename message.*

For the record, I wouldn't object to 1, but I prefer 2. My view is that the name is an ephemeral property of an interface intended to the convenience of the administrator, nothing more.

I random though just hit me as I thought about this message. For a variety of good reasons, if_index's are densely packed so if you destroy an interface and create a new one, you will almost certainly get the index of a recently used one. This leads to the problem that you can't tell the rename and create-destroy operations apart with the current set of routing messages. One solution to this problem might be to add a generation number to the interface either using a global counter or just a timestamp.

- > *Additionally I would like to create new sysctls:*
- >
- > *net.link.generic.ifdata.<ifindex>.dname*
- > *net.link.generic.ifdata.<ifindex>.dunit*
- >

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> *to access the driver's name of an interface.*

Fine with me.

-- Brooks

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Any statement of the form "X is the one, true Y" is FALSE.

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