

## Re: GRE with key

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- *From:* Cristian KLEIN <[crisi@xxxxxxxxxxxxxx](mailto:crisi@xxxxxxxxxxxxxx)>
  - *Date:* Tue, 27 Mar 2007 16:11:02 +0300
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Hi,

Thank you for your quick reply.

Bruce M. Simpson wrote:

Cristian KLEIN wrote:

Hello everybody,

I am new to FreeBSD kernel hacking, so please excuse my perhaps stupid questions.

I would like to add key support to gre(4). I have already been able to use gre(4) with a hardcoded key. The single thing remaining to do is to transfer the key from ifconfig(8). The key is an uint32\_t and I haven't found a way to transfer it without modifying ifconfig(8).

Excellent. Thanks for volunteering to do this!

I just wanted to be able to use the OS I like. ;)

My question is, which is the "BSD-style" to achieve the above? Solutions I came up with are as follows:

- 1) Use SIOCSDRVSPEC / SIOCGDRVSPEC
- 2) Add SIOCSGREKEY / SIOCGGREKEY
- 3) [Probably too ugly to be mentioned, but requires fairly few modifications.] Add a sysctl MIB which is read when calling "ifconfig ... create".

If I were doing this, I would add the code to ifconfig.c where the other tunnel stuff lives, and go for option number 2. Feel free to modify ifconfig to accommodate the new options.

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I have added GREGKEY / GRESKEY in if\_gre.h and included this file in ifconfig.c.

Another thing I wanted to ask is, which function of ifconfig(8) should I modify to display the GRE key?

Look at how af\_status\_tunnel() works and consider adding it there.

I have included key displaying in status() because it is af independent.

Please review the patch, so I can PR it. The patch is against RELENG\_6\_2. Could someone check whether it works on HEAD?  
<http://users.utcluj.ro/~crisiklein/patches/grekey.patch>

One note: gre(4) still ignores incoming keys (i.e. accepts any incoming key) and I think that is quite okay, because they are deprecated in RFC2784. However, should someone find it useful, I am willing to implement it, for the sake of correctness.

I have tested the current implementation against both a Cisco router and a Linux box, so it should work for everybody.

Thank you for your help!

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