

pfSense - Bug #3640

Sierra Wireless 3G Modem support driver

05/05/2014 01:47 PM - Nicolas Scheffer

Status:	Feedback	Start date:	05/05/2014
Priority:	Normal	Due date:	
Assignee:		% Done:	0%
Category:	Wireless	Estimated time:	0.00 hour
Target version:		Affected Architecture:	All
Affected Version:			

Description

Before FreeBSD 9.0, you need to install and compile specific Sierra driver when you want to use the Direct IP mode.

It seems that it's now built-in since FreeBSD 9.0, same for FreeBSD 10.0 used for the 2.2 pf Sense development.

<https://forums.freebsd.org/viewtopic.php?&t=24719>

Some stuff need to be done to implement correctly and to handle it trough the UI a Sierra 3G Modem like MC8801. If i understand correctly to achieve high speed network transfer it's better to use Direct IP mode since PPP.

History

#1 - 06/27/2014 09:41 PM - Jim Thompson

- Target version changed from 2.2 to 2.3

I can't assign this to anyone unless we have hardware in-house.

#2 - 09/20/2014 06:22 AM - Nicolas Scheffer

The Direct IP mode is Sierra Wireless only and provide and Ethernet virtual interface trough USB.

This mode is supported on the old Sierra products where the current line support the QMI (Qualcomm Modem Interface) protocol.

Old product support PPP, Direct IP and QMI where current product line support only QMI.

#3 - 01/09/2015 08:31 PM - Jim Thompson

- Target version changed from 2.3 to 2.2.1

- Affected Architecture set to All

#4 - 01/29/2015 05:41 PM - Chris Buechler

- Target version changed from 2.2.1 to 2.2.2

#5 - 04/02/2015 04:36 PM - Chris Buechler

- Target version changed from 2.2.2 to 2.2.3

#6 - 06/01/2015 06:25 PM - Chris Buechler

- Target version changed from 2.2.3 to 2.3

#7 - 09/22/2015 01:01 AM - Chris Buechler

- Status changed from New to Feedback

- Target version deleted (2.3)

Could you define "Some stuff need to be done to implement correctly and to handle it trough the UI" - what stuff?

#8 - 01/29/2016 05:05 AM - Nicolas Scheffer

Currently using the new APU2 board from PC Engines with a Sierra MC7710 modem and it's working using PPP with the latest pfSense stable 2.2.6 and last 2.3 Beta.

But ppp has bandwidth limitation around 20-25Mb/s depending the HW config you have, it's not the full speed for a 4G/LTE modem.

The solution is to use the Direct IP mode (DIP) from Sierra to have a sort of ethernet interface where you can control the modem using AT commands.

For this you need the usie kernel module available with FreeBSD 10, could you add it by default for the different build available ?

With this module we could have a good support for Sierra modem using DIP mode. A complete support could be done later with the AT commands option available in the UI.

I could send a modem if needed to someone for test.

Thanks in advance.

Regards

Nicolas

#9 - 01/30/2016 01:28 AM - Nicolas Scheffer

Chris,

If you use PPP nothing need to be done on the UI like any modem.

But if you want to use DIP mode (Direct IP mode providing a virtual ethernet interface), you need to handle this new interface with :

- ethernet interface to provide the data
- AT commands to configure the modem, change provider, login, password, etc...

We need when you select a Sierra modem with DIP to handle this 2 points this is why we need to have some UI update to handle this isn't it ?

#10 - 01/30/2016 03:23 PM - Nicolas Scheffer

FreeBSD forum user experience with DIP

<https://forums.freebsd.org/threads/sierra-wireless-hspa-usb-modem.24719/>

#11 - 01/30/2016 09:47 PM - Jim Thompson

we can't test this until we have a module in-hand.

#12 - 01/31/2016 02:08 AM - Nicolas Scheffer

Jim,

OK, I am agree to buy one and to send you for testing.

What is the address ?

I suppose you have all necessary (APU or other, antenna, etc...) ?

Nicolas