

After posting on the pfSense list that my SIP phone would occasionally die, the ones who know stuff pointed out that having a modem that does NAT in front of pfSense doing NAT is a Bad Thing©

Here in NZ the ISPs use PPPoA which pfSense doesn't do itself.

I'd purchased a Belkin mode that doesn't doing half bridge (i.e. still handle authentication but then stay out of the way). Helpful people pointed me to the Draytek Vigor which does PPPoE to PPPoA bridging. Yes.

I've now been using it for 17 minutes 28 seconds- rock solid since the day I bought it!

Set-up was easy:

1. Power up modem and plug a network cable into your computer w DHCP on the interface.
2. Log on to Draytek box (I used a Vigor 120). 192.168.1.1
3. Default user/pass is blank/blank
4. Go to the Internet Access > PPPoE/PPPoA page
  1. Check the PPPoE pass-through check box

- 2.
3. Save changes
5. Go to firewall > General setup and disable the firewall (we'll let pfSense do it's stuff)

- 1.
6. Save changes
7. Plug it in to your phone line and plug a network cable Draytek LAN port to pfSense WAN port
8. Log on to pfSense
  1. Set WAN interface to PPPoE

2. Enter user name and pass given by ISP.

**Interfaces: WAN**

**General configuration**

Enable ☒ **Enable Interface**

Description   
Enter a description (name) for the interface here.

Type

MAC address   
Insert my local MAC address  
This field can be used to modify ("spoof") the MAC address of this interface (may be required with some cable connections)  
Enter a MAC address in the following format: xx:xx:xx:xx:xx:xx or leave blank

MTU   
If you leave this field blank, the adapter's default MTU will be used. This is typically 1500 bytes but can vary on some hardware.

MSS   
If you enter a value in this field, then MSS clamping for TCP connections to the value entered above minus 40 (TCP/IP header size) will be in effect.

**PPPoE configuration**

Username

Password

Service name   
Hint: this field can usually be left empty

Dial on demand ☐ **Enable Dial-On-Demand mode**  
This option causes the interface to operate in dial-on-demand mode, allowing you to have a *virtual full time* connection. The interface is configured, but the actual connection of the link is delayed until qualifying outgoing traffic is detected.

Idle timeout  seconds  
If no qualifying outgoing packets are transmitted for the specified number of seconds, the connection is brought down. An idle timeout of zero disables this feature.

Periodic reset  Select a reset timing type

Advanced and MLPPP [Click here](#) for additional PPPoE configuration options. Save first if you made changes.

**Private networks**

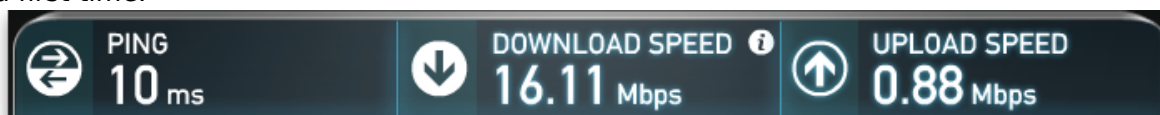
☐ **Block private networks**  
When set, this option blocks traffic from IP addresses that are reserved for private networks as per RFC 1918 (10/8, 172.16/12, 192.168/16) as well as loopback addresses (127/8). You should generally leave this option turned on, unless your WAN network lies in

3.

4. Click save

9. Worked first time:

1.



I haven't fiddled with MTU or MSS - I'll update this page if there are any issues.

[This page](#) discusses half-bridging and PPPoE to PPPoA bridging

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