

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©

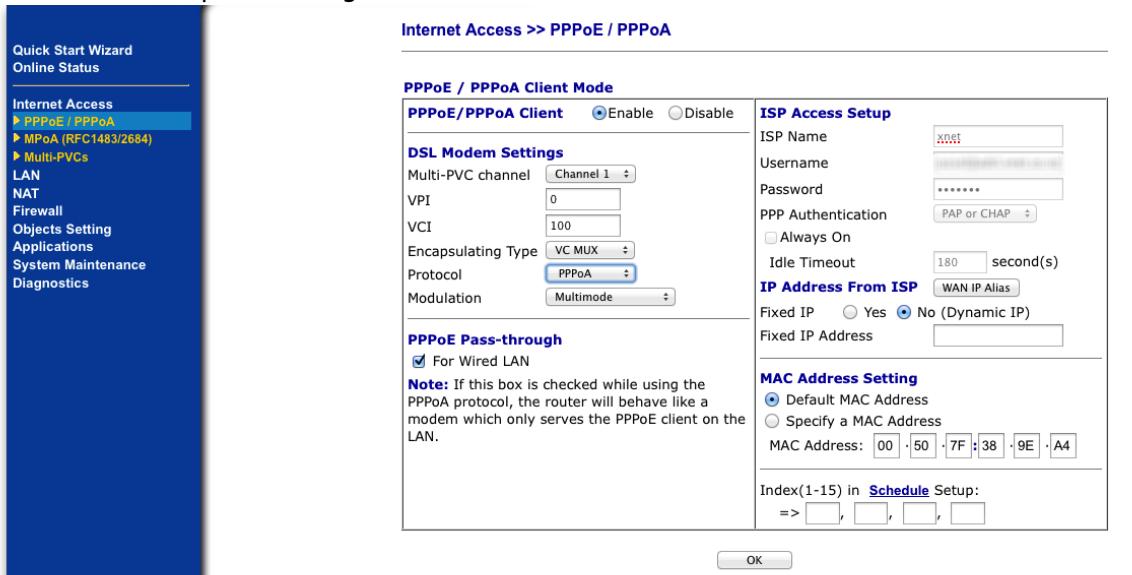
Here in NZ the ISPs use PPPoA which pfSense doesn't do itself.

I'd purchased a Belkin mode that doesn't do 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.

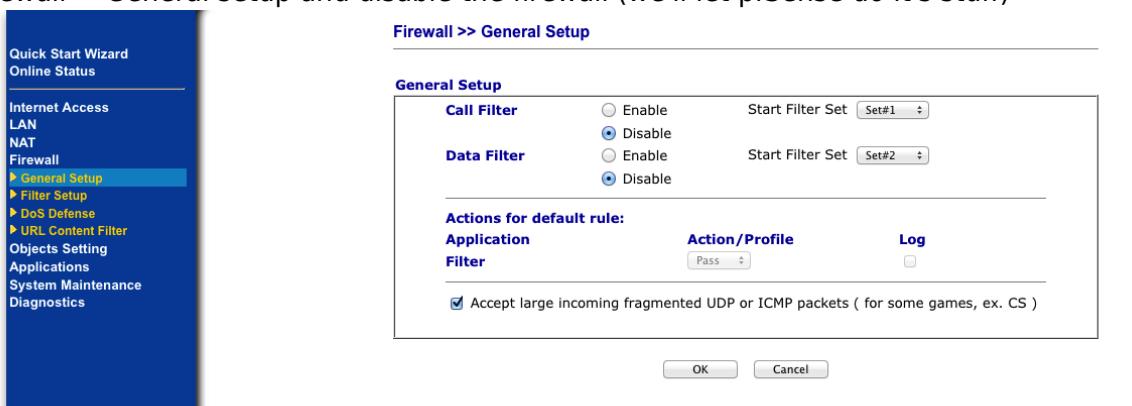
I've now been using it for 17 minutes 28 seconds- rock solid since the day I bought it!

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	<input checked="" type="checkbox"/> <b>Enable Interface</b>
Description	<input type="text"/> <b>WAN</b> Enter a description (name) for the interface here.
Type	<b>PPPoE</b> <input type="button" value="▼"/>
MAC address	<input type="text"/> <input type="button" value="Pencil"/> <b>Insert my local MAC address</b> 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	<input type="text"/> <input type="button" value="Pencil"/> 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	<input type="text"/> <input type="button" value="Pencil"/> 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	<input type="text"/>
Password	<input type="password"/> <b>*****</b>
Service name	<input type="text"/> <input type="button" value="Pencil"/> Hint: this field can usually be left empty
Dial on demand	<input type="checkbox"/> <b>Enable Dial-On-Demand mode</b> This option causes the interface to operate in dial-on-demand mode, allowing you to have a <i>virtual full time</i> connection. The interface is configured, but the actual connection of the link is delayed until qualifying outgoing traffic is detected.
Idle timeout	<input type="text"/> <input type="button" value="Pencil"/> <b>seconds</b> 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	<b>Disabled</b> <input type="button" value="▼"/> Select a reset timing type
Advanced and MLPPP	<b>Click here</b> for additional PPPoE configuration options. Save first if you made changes.

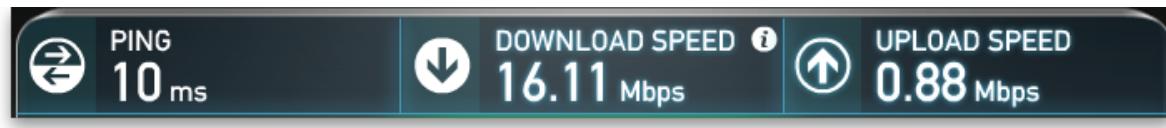
**Private networks**

<input type="checkbox"/> <b>Block private networks</b> 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
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3.

4. Click save

9. Worked first time:



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



