

PPPoE on the nbn in 2026. I thought it was all mostly vdsl2 on phone lines but is TPG still on PPPoE in some places. Any idea how many?

A conversation with Google AI in July 2026

To answer your questions directly: **Yes, TPG absolutely still uses PPPoE**, but it is not just limited to old copper phone lines. They use it across their entire nbn® network.

How many customers are affected? **Millions**. Because PPPoE is baked into the core architecture of the TPG Telecom group, it applies to almost every single nbn customer they have nationwide.

1. PPPoE Clarification

- **PPPoE** (Point-to-Point Protocol over Ethernet) is the *authentication* layer. It is the digital "handshake" that requires a username and password to authenticate your router with your ISP.

Because PPPoE lives entirely in the software/network layer, **TPG enforces it on every single nbn technology type**, including FTTP (Fibre to the Premises), HFC (Cable), and FTTC (Curb). Whether you have a modern glass fibre line running into your wall or an old copper phone line, a BYO router on TPG must be configured with a username and password using PPPoE.

2. How Many Customers Use TPG PPPoE?

While TPG does not publish exact system-by-system subscriber splits, we can look at market share to see the scale:

- TPG Telecom (which includes **TPG, iiNet, Vodafone, and Kogan Internet**) is one of the "Big Three" telcos in Australia.
- Across their entire nbn brand portfolio, they manage **roughly 1.5 to 2 million active nbn connections**.
- Because TPG, iiNet, Vodafone, and Kogan all primarily use PPPoE authentication for their nbn customer bases, **millions of Australians** are routing their internet traffic through this protocol every day.

Why is TPG Still Using PPPoE?

Most modern nbn providers (like Aussie Broadband, Superloop, or Belong) use **IPoE/DHCP**. With IPoE, you just plug in your router and it automatically gets an IP address with zero configuration needed.

TPG keeps PPPoE for a few major operational reasons:

- **Legacy Infrastructure:** TPG was originally a massive DSL provider. Their entire backend billing, traffic shaping, and authentication servers were built around checking user credentials via PPPoE. Moving millions of customers to a new database architecture is a massive, high-risk technical project.

- **Easy Tracking:** PPPoE makes it incredibly simple for TPG to see exactly which username is consuming data or authenticated on a port at any given time, regardless of what physical nbn box they are plugged into.

The Downside of PPPoE

The reason tech enthusiasts often complain about TPG's choice to stay on PPPoE is performance overhead.

Because PPPoE wraps every single data packet in an extra authentication header, your router has to work harder to process the data. On ultra-fast 500Mbps or 1000Mbps (Gigabit) FTTP plans, older or cheaper BYO routers can suffer from CPU bottlenecks trying to process the heavy PPPoE encapsulation, sometimes capping actual speeds well below what the fibre line is capable of delivering.

Hmm, I think Telstra and Optus are also all IPoE

You are entirely correct. Both **Telstra** and **Optus** are fully on **IPoE (DHCP)**.

If you take a Telstra or Optus smart modem and plug it into an Aussie Broadband, Superloop, or Leaptel connection, it will often just connect to the internet automatically without changing a single setting. They are all on the same protocol team.

The Australian nbn® retail market is firmly split into two distinct camps:

The Zero-Credentials Camp (IPoE / DHCP)

These providers use your physical nbn® port location to identify your house. You do not need to type in a username or password.

- **Telstra** & its budget brand **Belong**
- **Optus** & its partner brands like **amaysim**
- **Aussie Broadband** & its budget brand **Buddy Telco**
- **Superloop** & **Exetel** (though a few legacy Exetel accounts might linger on PPPoE)
- **Leaptel**, **Launtel**, **More Telecom**, and **Dodo**

The Username & Password Camp (PPPoE)

These providers require you to manually input a username and password into the router settings to authenticate your connection.

- **TPG Telecom Group:** This is the massive exception that covers **TPG**, **iiNet**, **Vodafone**, and **Kogan Internet**.
- **AGL Energy Broadband**
- **Tangerine & Flip**
- **iPrimus & Moose Mobile**

Why TPG stands alone among the "Big Three"

Because Telstra and Optus upgraded their massive backend network architectures years ago to support automatic, seamless IPoE configurations, TPG Telecom is the only remaining giant of the "Big Three" still heavily tied to PPPoE.

This is exactly why TPG's connection protocol frequently catches people off guard when they buy a standard retail BYO mesh router—like a Google Nest or Amazon Eero—and expect it to just work out of the box like it does on Telstra or Optus.

Just confirming TPG policy is Australia wide at present. It would be a huge job to change. Tricky.

It is exactly as you say—it is a monumental, incredibly tricky engineering hurdle to change, which is precisely why the policy remains strictly **Australia-wide** across their network today.

For an organization of TPG Telecom's scale, moving away from PPPoE isn't as simple as flipping a digital switch. It would mean fundamentally rebuilding how they operate.

The main reasons it remains a massive, high-risk job include:

1. Re-engineering the Billing Engine

TPG's billing systems are hardcoded to talk directly to their PPPoE authentication servers. When a user types in their username and password, the system checks if the bill is paid, validates the plan speed, and then opens the data pipe. Switching to IPoE means decoupling that entire automated process and training the billing system to recognize customers based on physical nbn® port IDs instead.

2. The Customer Support Nightmare

If TPG changed to IPoE tomorrow, millions of existing customers with older, pre-configured TPG modems could suddenly lose their connections. The sheer volume of support calls from confused users whose internet unexpectedly dropped out would completely overwhelm their call centres for months.

3. Merged Legacy Networks

Over the years, TPG swallowed up rival networks like iiNet, Internode, and Vodafone's broadband arm. Each of those brands brought its own legacy PPPoE databases with them. Consolidating all of those disparate, decades-old systems into one unified modern IPoE network without breaking active connections is a massive technical debt headache.

So for now, TPG keeps the status quo because the system works reliably, even if it requires that extra bit of manual configuration for BYO routers from Hobart to Darwin.

End of Conversation