

What is PSTN retirement?

The UK's existing telephony network has largely existed for over 100 years. Advances in technology have allowed the network to grow to cover over 5000 telephone exchanges supporting around 32 million telephone circuits, in turn supporting around 27 million broadband circuits. The underlying infrastructure for this network is largely maintained by Openreach, who after due consideration have decided that not only is it no longer economically sensible to maintain and expand the aging network, but it is ill-equipped to deal with the capacity requirements of the UK's future needs.

To be able to provide reliable, future proofed infrastructure, Openreach have started the process of decommissioning the telephony network (PSTN, or Public Switched Telephone Network) – upgrading exchanges around the country and rolling out new broadband services that do not have reliance on PSTN such as Fibre to the Premises (FTTP) and Single Order GEA (SOGEA) services. As these exchanges are upgraded, Openreach will stop selling Wholesale Line Rental (WLR3) products, such as analogue voice – or PSTN based Broadband services in favour of FTTP or SOGEA services, with the ultimate view that nationally all of these services will be phased out by the end of 2025.

When is the PSTN retirement happening?

Openreach are switching off the PSTN network in December 2025. This means that any service that requires the PSTN network will stop working after this date.

Ahead of the December 2025 switch off, Openreach have issued a national stop sell (effective September 2023) on any PSTN based services.

What is All-IP?

All-IP is the term that Openreach and other provides are using to signify the move from legacy-based services to new technologies. This term is being used interchangeably with PSTN retirement and WLR retirement.

Openreach, who provide most of the telecommunications and broadband infrastructure in the UK, have announced that they are withdrawing from the voice market by December 2025. With this, Openreach are planning to retire the UK telephony network – the Public Switched Telephone Network (PSTN), all traditional WLR3 analogue voice services, ISDN and all PSTN-based Broadband services.

The retirement of these services is leading to a replacement of legacy analogue services with new, digital IP based services, such as data only Broadband circuits and VoIP telephony – hence "All-IP".

How does this affect my business?

It is extremely likely that every business in the UK today will feel the impact of PSTN retirement and the move to All-IP. Several FluidOne services will be affected, with replacement products and services already being made available.

It is key that businesses and consumers are aware of this change, are building into their technology strategy and engaging with FluidOne to ensure that they adopt the relevant technologies to ensure a seamless transition away from these legacy services.

There are a number of areas that may impact your business depending on where you are on the digital transformation journey – areas that will not only affect your day-to-day business but may also impact your wider business strategy, which we'll outline below:

What services are impacted by the WLR3/PSTN retirement?

There are several key areas that are going to be affected by the retirement of these PSTN-based products, some of which you might find quite surprising. In short, the below services are impacted by PSTN retirement:

- Traditional Analogue Voice
- ISDN 2 and ISDN 30 Services
- ADSL Broadband Services
- ADSL2+ Broadband Services
- FTTC Broadband Services
- Ancillary Services utilising analogue voice circuits

The first and most obvious one is analogue telephony – any landlines that are currently employed today will no longer work post-December 2025. Although Openreach are not offering a replacement service for analogue landline services, VoIP services provided by companies such as FluidOne are the recommended migration path going forward.

The same is true for any voice solution utilising ISDN, although ISDN services have been dramatically overtaken by SIP trunking and VoIP services over Broadband in recent years and is largely end-of-sale, there are still around 2 million ISDN30 and 500,00 ISDN2 circuits in use in the UK which will cease to operate after the 2025 switch-off.

Which leads us on the Broadband services. Currently the most popular and wildly available Broadband services on the market, ADSL2+ and Fibre-to-the-Cabinet (FTTC) utilise an analogue phone circuit to deliver connectivity. Without the analogue portion of the circuit, Broadband as it is today will simply not work. New Broadband services that have no dependence on the underlying analogue voice service have been developed and are currently being rolled out across the UK to ensure that alternative technologies are in place.

Finally, and perhaps one of the areas that are often overlooked, are ancillary services that run over an analogue voice circuit – often these services are not provided by FluidOne. Examples of these kind of services include PSTN-based alarm signalling systems (such as Telehealth/Telecare services or lift, fire or intruder alarm systems such as BT's Redcare), any point-of-sale technology still using dial-up services to make payments, or any ISDN-based CCTV systems will cease to function when the PSTN retirement is complete. If you currently take any of these services, you will need to speak directly to the provider of those services to determine if you are affected and what remediation is required to avoid service disruption.

In some areas, such as companies that deal with Critical National Infrastructure, such as the Energy or Water industries, telemetry data is often sent over analogue voice circuits. Openreach have been working closely with these industries to ensure that measures are in place to ensure there are no disruption to these services.

Which of my FluidOne services will be affected by this change?

Any analogue voice services that you currently take with FluidOne, such as PSTN or ISDN services will be affected.

If you need to continue to use a voice service then you will need to move to a digital voice service, such as Digital Voice Line (PSTN replacement), a SIP based service or something along the lines of Teams Voice or a UC solution such as 8x8. You can discuss these requirements and a suitable solution with your Account Manager.

In addition to analogue voice services, any service that today requires the use of a PSTN, such as ADSL or FTTC services will be impacted. You will need to look at moving these services to FTTP (where available) or to SOGEA broadband services (which is essentially a data-only FTTC circuit that isn't based on PSTN technology). Again, your account manager will be able to assist with suitable replacement services.

What is the PSTN stop sell and when does it take affect?

As of September 2023, Openreach have put out a nationwide stop sell to all providers for the below products. This means that you will no longer be able to order new services or place any modify orders (outside of re-grades) to All-IP services:

- PSTN Analogue Telephone Lines
- ISDN2 and ISDN30 circuits
- ADSL/ADSL2+ Broadband Services
- FTTC Broadband Services

What if the All-IP services are not available at my location after the stop sell?

There are going to be edge cases in certain areas where All-IP may not be available by the stop sell date. If FTTP or SOGEA are not available at your location, PSTN-based services will still be available for order. However, as All-IP services are rolled out these areas, the PSTN based services will be withdrawn from sale.

What is SOTAP/SOADSL?

In areas where FTTP and SOGEA may not be available, Openreach are releasing a new transitional product called Single Access Transitional Access Product, or SOTAP (Providers such as BT take this product and create SOADSL). Like how SOGEA is a broadband service similar to FTTC but without a dependence on PSTN, SOTAP or SOADSL is a service comparable to ADSL2+ that doesn't depend on PSTN. This service acts like an in-fill service to provide All-IP based connectivity ahead of further rollout of FTTP or SOGEA services.

Are there benefits from moving to All-IP?

There are many benefits to moving to All-IP as soon as possible.

This shift is happening nationwide, so all UK businesses and service providers are going to be clamouring to start consuming these new services. By acting now, you'll be ahead of the curve and beat the rush as we approach closer to the December 2025 deadline, giving peace of mind that you're ready ahead of time.

This shift is also a good time to rationalise what you have and make sure that you're using the latest technology and services that are the best fit for your business – ensuring connectivity is right-sized, futureproofed and more reliable, ensuring that you're utilising the latest collaboration services for business productivity and that you're getting value from your solution.

Regarding connectivity specifically, PSTN based services are reaching a point where they are no longer fit for purpose. Reliability of the underlying network is starting to become an issue and the services can no longer keep up with the demands of consumers and businesses in terms of bandwidth and latency requirements. All IP fibre based services are more reliable, faster and have bandwidth that will meet future demands – allowing new services and applications to develop, helping grow UK businesses.

I have a large or complex estate – how can I get help determining what needs to be done to be ready for the switch off in 2025?

FluidOne are ready to help with the migration of your large or complex estate from PSTN based services to new All-IP, 4G/5G cellular or LEO satellite services, including any over the top voice solutions and integration to the connected cloud for your business. For more information please contact <u>contact@fluidone.com</u>

What were the timelines for this retirement?

There are a few stages before we reach total retirement of all PSTN-based and ISDN-based services, as you can see from the timeline below:

December 2020	Launch of SOGEA, SOGFAST, EoSOGEA and EoFTTP services
December 2020	Salisbury Trial: End-of-Sale of WLR products at Salisbury Exchange
May 2021	Mildenhall Trial: End-of-Sale of WLR products at Mildenhall Exchange
December 2022	Withdrawal of WLR products at Salisbury and Mildenhall exchanges
September 2023	End-of-Sale of all WLR products
September 2023	Launch of SOTAP/SOADSL services
December 2025	All WLR products withdrawn

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