



Mobile Network Closure Guidance

Developed by TSA

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Summary

The UK's mobile network providers will switch off their 3G and then 2G networks over the next few years. Vodafone, Three, and EE are expected to switch off their 3G networks by the end of 2024 with Virgin Media O2 (VMO2) expected to follow in 2025. 2G network switch-off will be completed by 2033 at the latest, and possibly as early as 2028.

As well as mobile phones, there are many other devices that use mobile networks to connect. These include telecare alarms, security alarms, fire alarms, ATMs and payment terminals.

If you provide a service (like telecare) that relies on 2G or 3G networks, then you are responsible for ensuring the continuity of service after 2G and 3G networks are switched off. This responsibility might be part of contractual and consumer law obligations you have with your customers, as well as any regulatory requirements that already exist.

Given that many 4G devices currently use 2G/3G as a communication method for voice, and so could be affected, service providers need to talk to their supplier about potential impacts. We explain more about the changes below.

What's happening?

3G retirement / sunset planning

Since its launch in 2003, 3G was the first higher speed mobile internet access and kick-started the mobile internet revolution. Over the last 20 years since its launch, technology continues to move at pace, and the "high speeds" 3G delivered in 2003 are now considered slow compared to 4G, and the advent of 5G.

When is it happening?

Now

Vodafone started to decommission sites in 2023, region by region, and is aiming to complete in early 2024. At the same time Vodafone will be largely reusing the band, currently used for 3G, to broadcast 4G, improving speeds in those few locations where 3G is still the best available technology.

The other UK Mobile Network Operators (MNOs) are following a similar path although timescales for switch off are due to start in early 2024. At this current time, we are aware of the following:

- Vodafone – Switch off early 2024
- EE – Switch off early 2024
- Three – Switch off by end of 2024
- O2 – Switch off through 2025

This means some networks will continue to run the service during 2024, with 3G still being available, but it will be in constant and steady decline until around the middle to end of 2025 from which point it is likely that no 3G coverage will be available. Unfortunately, MNO's have

not published switch off dates by region although this information will be shared once and if it becomes available.

What does this mean for me?

4G is the fourth generation of mobile phone technology, following on from 2G and 3G. 2G technology was suitable for making calls and sending text messages, while 3G makes it possible to access the internet more effectively through your mobile phone. 4G offers faster internet connection speeds and more capacity for data services.

If you have devices capable of 4G, your service should improve, as now 4G will cover most of the areas that were previously only covered by 3G. Operators are expected to ensure that they offer a broadly equivalent level of 4G coverage ahead of 3G, and subsequently 2G, switch-off. However, telecare devices have a requirement for voice, so 4G devices will require combined attachment to 2G or 3G as well as 4G until VoLTE (Voice using 4G) is available on the SIM cards.

4G VoLTE behaves much like 'Wi-Fi calling', but is not yet available on roaming networks. This is important as roaming SIMs are often used in telecare devices to provide alternate communication routes. Roaming VoLTE is due to be available throughout early to middle of 2024. Until then, voice enabled services will use 2G or 3G based services (until 3G is switched off). So, for example, you may have a GPS device with a 4G SIM card installed, however at present the voice call will still use 2G or 3G connection to make the voice call.

If you have devices capable of 2G and 3G, this device should fall back to 2G when it can no longer see a 3G service and where 2G is available. It is advised that you speak with your manufacturer to confirm 2G availability switches seamlessly without any further intervention or firmware upgrades.

If you have a 3G only device, including those using a roaming SIM not provided by a UK mobile operator, you need to plan your strategy for removing these devices from service before 3G switch-off. TSA, Mobius and CSL are working to provide information to help service providers identify their customers who may be affected, with support from the mobile operators and Ofcom. Depending on the network, a 3G only device may lose the ability to connect via mobile networks at some point between now and potentially 2025.

What should I do if I'm unsure?

If you are unsure, speak to your hardware manufacturer/ TEC supplier about the product you have, the technologies it uses as well as fall-back capabilities, and the latest products and roadmap as part of your planning. The TSA, Mobius and CSL are also happy to support you where we can.

Suggested Questions to ask Suppliers

1. Does my device use 3G?
2. Does my device have other technologies (e.g. 2G, 4G, Broadband) available when 3G is switched off?
 - a. If yes, has fall-back been tested on data and voice?
3. Does my device use 4G for data transfer? If yes, what technology is relied on for voice and will it 'roam' between networks?

4. What MNOs (EE, Three, Vodafone, O2) are available to my device and on which different technologies (e.g. 2G/4G)?
5. Do I need to re-test the mobile connectivity and performance of the product as the networks change?

What happens when 4G ends?

4G was launched 10 years after 3G, around 2012. This means it is a much more recent technology and is therefore only halfway through its lifespan as a worst case. It is likely 4G would be in service for at least 10 years or more if you take 3G's lifespan as a worst-case guide.

Should I deploy 5G?

5G is still in launch phase across the UK, the hardware is still largely more expensive, and there would be no perceived benefit to Telecare devices from using it. Given the likely lifespan of 4G, this is the most appropriate technology for the use case and device longevity.

What happens when 2G ends?

Telecare devices that use 2G and 3G networks may be able to fall back onto the 2G network once 3G is switched off and continue to operate on that basis. However, the government and industry have also announced their intention to sunset the 2G network. The 2G network is expected to continue to operate for a further 5 to 10 years, to between 2028 and 2033 at the latest. No UK operator has yet announced plans for the switch off of their 2G network. If you have a device that currently uses 2G, or will use 2G following the 3G switch off, you will need to develop a migration plan with this timeframe in mind.

UK MNO coverage checkers and 3G switch off plans

- **EE:** [coverage checker](#) and [3G switch off plans](#) 'early 2024'
- **Three:** [coverage checker](#) and [3G switch off plans](#) 'end of 2024'
- **Vodafone:** [coverage checker](#) and [3G switch off plans](#) 'early 2024'
- **O2:** [coverage checker](#) : [3G switch off plans](#) 'through 2025'

Ofcom information

- [3G not spot data](#)
- [Ofcom mobile coverage postcode tracker](#)
- [Connected Nations \(contains information on 2G/3G/4G/5G network coverage\)](#)
- [Ofcom Consumer guide on 3G switch off](#)
- [Ofcom 3g and 2g switch off: Our expectations of mobile providers](#)

Other useful links

- [Joint UK Government and industry statement on the sunsetting of 2G and 3G networks](#)
- [which? UK 3G switch off - what you need to know](#)

- [ISPreview 3G 'mythbusters'](#)
- [LGA Article on 3G Network Shutdown](#)

To conclude, if you are a TEC service provider, please ensure you have carried out a stock check of all your TEC devices, including GPS devices, that utilise SIM connectivity and ensure you are aware of which devices currently rely on 2G/3G connectivity and make contact with your TEC supplier to ensure a plan is in place for any devices that will be at risk due to the 2G/3G switchoff. If you are unsure or require any clarification, please contact the TSA membership team on ALLIP@tsa-voice.org.uk

Glossary of Terms

Combined Attachment	This is where a device connects to 4G and either 2G or 3G at the same time. Some 4G Telecare devices may require this to use voice services until VoLTE is available.
Fall-back	This is where a device uses another technology once 3G is no longer available
MNO	Mobile Network Operator
Not spot	An area that no longer has coverage once an MNO has switched off 3G
Technologies	2G, 3G, or 4G
VOLTE	Voice using 4G or 5G technology