

MCS/ES Info

Important changes to your Landline

Many people suffering from MCS also have ES and are particularly sensitive to electromagnetic waves. Traditional landlines use copper wires to connect and this has worked really well over the years. However, this is now changing to work digitally and will impact all of us with a landline.

This article explores what is happening and why. Phone companies are replacing Britain's decades-old copper telephone network (public switched telephone network) with phones that make calls digitally (digital voice), using broadband. Digital Voice is the name BT, the UK's biggest landline provider, uses for its digital voice service. You may also hear digital voice services referred to as 'VoIP', 'IP voice' and other branded versions such as 'Sky Voice' or 'TalkTalk Voice'.

Why are traditional phone services being taken away?

The phone network that has existed since the Victorian era is coming to the end of its life. While its physical infrastructure remains similar to when it was installed, our communication needs have changed immensely. Alongside this, broadband connections rely increasingly on fibre optic networks. These not only offer faster speeds than copper but are also more reliable, more resilient and easier to maintain. While phone services no longer use the copper network by the end of 2025, the aim is for full fibre coverage to reach 85% in the same year.

The move to digital phone services isn't only about infrastructure: it also offers benefits such as clearer calls, the ability to make multiple calls simultaneously and the possibility of accessing your landline in other locations. In time, it will also allow telephone providers to develop tools to better protect their customers against scam and nuisance calls.

All of Britain's 29 million homes will be switched to the new digital voice service by 2025, despite concerns the new infrastructure will collapse in extreme weather conditions. BT has conceded there is "more work to be done", after power cuts during recent storms caused digital phones to stop working, even though traditional landlines continued operating. It follows criticisms from Britain's biggest charity for the elderly, Age UK, which said customers who depended on old landline connections were "being abandoned" and left unable to dial 999 in an emergency.

Around 15pc of landlines are now accessed over broadband, up from 8pc in 2021, according to regulator Ofcom. The watchdog has told telecoms firms they must ensure customers dependent on landlines have a free alternative, such as a mobile phone for emergencies, or

are given charging packs, which will keep their internet routers online during any power outage. However this apparently has its own issues as the chargers only have a limited life so may pose a problem if there is a prolonged powercut.

What will happen when I am moved to digital voice services? In most cases, the changeover will be simple. While some phones might require an adaptor, many will continue working (particularly DECT cordless phones) you'll just have to plug yours into your router or a new socket. Older phones might need to be replaced. It's likely that providers will offer a new model, but it might come at a cost. Some people might need a new or upgraded router, supplied by their provider. Once set up, your phone will work in much the same way it always has. You'll be able to keep the same phone number and will still hear a dial tone when you lift the handset. You will also still have to pay for calls in the same way – that's even the case if they're delivered using your broadband connection.

Your landline provider will get in touch with you when it's coming to the time for you to migrate. Apparently some customers would be forced to pay out of their own pockets to upgrade to new technology that is compatible with the new digital network. While customers will receive a limited number of new handsets and back up batteries for free, some customers face forking out for new handsets to replace their older corded telephones around their homes. Cordless DECT phones will still work with the new systems.

BT has identified close to two million vulnerable customers who will be excluded from the transition until the new technology becomes available, delaying their switch until the end of 2023.

MCS-Aware is contacting Openreach and BT directly to try to obtain more information about the roll out of this phase out of traditional analogue phone lines. They'll be trying to find out what sort of equipment will be suitable for ES sufferers after the phase out, in conjunction with ES-UK and other charities and will update members of their progress.

<https://www.which.co.uk/reviews/broadband/article/digital-voice-and-the-landline-phone-switch-off-what-it-means-for-you-aPSOH8k1i6Vv>

<https://www.telegraph.co.uk/money/consumer-affairs/bt-admits-vulnerable-customers-could-cut-digital-phone-rollout/>

Please see further article on the implications of those living with ES below

What the Copper-to-Fibre Landline Switchover Means for People living with ES

In this article Sarah Scott explains in more detail what these changes mean for people suffering from ES.

The current landline system operates at 50V DC (direct current), which is often more tolerable

to ES sufferers than mains power, which is at 240V AC (alternating current): the latter has continuous spikes on the supply fluctuating at 50hz (50 times a second), which people are more likely to react to, and it can transmit 'dirty electricity' more easily (e.g. radio frequency interference).

Once full-fibre is rolled out to the whole of the UK, which BT (and Openreach, the engineering side of the company) plan to do by 2025, they intend to switch off the 50V DC copper network, and you will only be able to use a 'landline' telephone over the internet – i.e. by VoIP ('Voice over Internet Protocol'). If you are able to tolerate having a broadband router switched on in the house all the time, even if just with the wireless disabled (e.g. a BT Homehub or other third-party router), then you may not be too affected by this change. We understand that BT's Smarthub2, which will be required to use their VoIP 'Digital Voice' service, has a phone jack on the back where you can connect existing analogue phones (this has to be confirmed, as BT keep giving conflicting advice on this!).

When you are switched over to full-fibre, it will also be necessary for a BT engineer to visit your home and install an 'Optical Network Terminal' (ONT), which basically acts as a modem and converts the incoming fibre signal into a useable digital signal that can be accessed by your Homehub or router (that you can then use to access the internet, and/or connect your home phone to via the router). [Some people currently have 'fibre-to-the-cabinet' for their internet, but this still uses a copper cable as the final step from the cabinet to the property – full-fibre will entail replacing all of these copper cables with fibre ones.

The ONT box is not wireless, but does need an external power supply (AC/DC adapters can cause radio frequency interference), so we suggest it is installed as far away from your living/sleeping area as possible.

BT Homehubs can have their home Wi-Fi network disabled by accessing the Homehub settings online. However, it is important that you also disable the 'Hotspot' it gives out, a completely separate signal for other BT customers, who happen to be passing in the street outside, to use if required – this has to be done by accessing your BT account online and opting out of BT Fon (or calling BT), and the Homehub may have to be left switched on for up to 24 hours (with wireless enabled) while this change in settings is activated.

As things stand, if you do not want a BT Homehub – and many ES people don't trust them, due to hotspots sometimes accidentally getting reactivated – you will not be able to use BT's Digital Voice service for your telephone, although MCS-Aware is in negotiations with BT regarding this.

Homehubs (along with many devices/routers) also give off low-level background radio frequency interference (from both the main unit and AC/DC power adapters), and this may be an issue for some ES people, who will not want to have one switched on all the time in order to use their landline phone (although it may be possible to shield the router and/or power supply, something MCS are looking into).

Many other companies offer VoIP telephone services, and to use this, after the switch over, you will also need a fibre router (i.e. with an 'ethernet in' port) with a dedicated VoIP port to plug in an analogue phone. Alternatively, you can use a normal fibre router (i.e. no VoIP port) combined with an 'Analogue Telephone Adapter' (ATA) - that plugs into an ethernet port on

the router, allowing you to use your existing analogue phone – or you can use a special VoIP-enabled corded phone, which is also connected to an ethernet port on a router (most routers can have the wireless disabled by accessing the settings, or a button on the front). With all of these options you will still need an ONT box installed, as previously referred to (although the fibre cable coming to the house shouldn't be too much of an issue, as it only uses light signals over glass fibre, so can't technically transmit radio frequency interference).

For those with severe ES, this all sounds like a bit of a technical nightmare, as many people rely on their landline phones as their primary connection to the outside world, and do not want a router switched on all day. There is also the issue that during a mains powercut people will lose their phone connection (the current 50V DC copper system is much more resilient to powercuts, hence why it was first introduced), and most people with ES can't use a mobile phone.

The effects of the fibre switchover will also affect many other elderly and vulnerable people, especially those in low mobile phone signal areas during powercuts, and those who depend on telecare safety equipment to call out in an emergency, which may no longer be compatible. There has been a lot in the press about this issue recently, especially in The Daily Telegraph, MCS-Aware Magazine Spring/Summer 2022 Page 23 MCS-AWARE.org and complaints about the lack of public consultation by BT/Openreach over the decision to switch off the copper network. MCS has written to BT to outline the specific concerns of people with ES and are awaiting a reply.

It has been suggested that those who are deemed vulnerable will have their switchover delayed until the end of 2023, so if you have any concerns, we strongly suggest you ensure you are listed as vulnerable on your BT account. Probably the best way to contact BT is to dial 0800 800 150, select option 1 (phone and broadband), then option 2 (faults and set-up – even if you don't have a fault, as there is no specific option for the technical department). Then explain your specific health problems, e.g. ES, and that you are a vulnerable customer and may be left with no useable phone service, and ask for a flag to be put on your account to indicate this, to delay disconnection by Openreach of your copper landline and switchover to full-fibre until at least 2023.

At present, people are being contacted by post or email and given about four weeks' notice of impending disconnection, although it will depend on when the work is being carried out in your area – it may be some time (months/years) off yet (although some people have been switched over already). It is probably worth contacting BT now if you have any concerns, to ensure you are listed as vulnerable, and again if/when you are contacted by post/email, just to double-check on this status. This will then allow some time to work out exactly what the best equipment options are for those with ES. As stated, MCS has been in touch with BT to discuss the technical aspects and intend to test out available hardware – ONT boxes, routers, ATAs etc – over coming months, and look into shielding options, although this may take some time. MCS hope to have a basic update by their next Autumn/Winter magazine.

For people who have telephone and internet packages with another provider, other than BT, you will need to contact the provider directly and discuss your situation. Hopefully they will take a similar approach to BT regarding vulnerable customers, and it would still be Openreach carrying out the engineering/infrastructure work, i.e. installing the new fibre lines/ ONT boxes etc. In theory it shouldn't be possible for vulnerable customers to be switched over accidentally when other houses in the area are initially done, due to the fact an Openreach

engineer will need to actually gain internal access to your property to install the ONT box necessary for full-fibre.

Since the publication of this article in MCS-Aware, BT have announced they are 'halting' plans to switch customers over to broadband-only telephone calls, in light of overwhelming consumer complaints and lack of public consultation (and especially following ongoing coverage of the issue in The Daily Telegraph):

www.telegraph.co.uk/money/consumer-affairs/bt-halts-removal-landline-phones-vulnerable-unable-call-999/

However, this only seems to be a temporary pause, as they intend to look at solutions for some of the issues raised – loss of phone use in a powercut etc (e.g. providing longer lasting battery back-up) – and plan to resume the rollout at the end of the year, so the above information is still relevant (albeit with a bit of extra breathing space).