

# TELEPHONY SWITCHOVER

## INTRODUCTION

Most telephone lines are delivered to homes using analogue technology in the UK. These are commonly known as PSTN, or Public Switched Telephone Network.

Following a 2017 announcement, telecommunication firms such as BT are now in the process of fully transitioning telephony networks from analogue to digital. This switchover will improve connectivity and lower long-term costs.

From a telecare standpoint, Partnerships are working hard to ensure that those vital services which aid the daily lives of society's most vulnerable are protected during the switchover.

## MOVE TO DIGITAL TELEPHONY

Over 2 million UK businesses will be affected by BT's Openreach user-led plans to permanently switch off support for all analogue communications networks by 2025, with other operators planning to switch off even sooner. This is in addition to Openreach no longer selling copper-based products across 118 exchange areas by 2021.

Telecommunications providers are upgrading legacy PSTN lines with digital phone lines that use Voice over IP (VoIP) technology. This means that homes have a single digital connection providing both internet and voice services.

Firms will market digital services to users, who can decide whether to sign up for these services. This marketing push will most likely focus on selling faster internet services that the digital upgrade enables, rather than solely as a telephone line change, which may be challenging in terms of users' awareness of the impact this could have on their telecare service.

Swapping high capacity telephone trunks (usually ISDN30) for IP equivalents (usually SIP) is a fairly simple change. However, the modern communication standards used by IP phone lines and their reliance on mains power means that they cannot always support these kinds of legacy applications, therefore a like-for-like replacement may not always be possible.

Identifying where all these existing telephony services are being delivered and what they are being used for can also be a challenge. Engineers regularly see telephone services that were installed decades ago, with limited information available on who is using them, but with customers operating business as usual regardless.

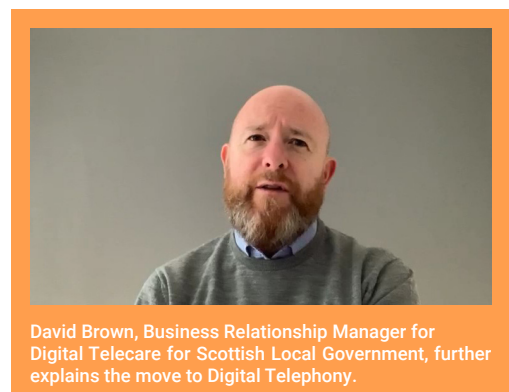
IP telephone lines require a data network connection – this can be an issue for telephone services in locations with no data cabling, or where the service must operate during power outages. Ultimately, organisations need to consider whether there is time and budget available to address cabling issues and what impact a potential reliance on data networks may have on support arrangements.

Although a one-size fits all approach is not possible, there are solutions available for most applications. In addition, the switch off provides a perfect opportunity for organisations to review their telephony services and delivery arrangements.

## THE IMPACT ON TELECARE SERVICES

Currently in the home, the user's telephone, telecare equipment and internet router connect to an analogue phone line. This analogue phone line connects the user's home to the local telephone exchange. Similar analogue lines, or ISDN, connect the Alarm Receiving Centre (ARC) to its local exchange. Calls between exchanges are carried across the telecommunications provider's core network.

The impact of moving to digital telephone lines may affect how telephone lines are set up in users' homes. As migration to digital will be user-led, telecare Partnerships are unlikely to see all of their users in a specific geographical area move to digital. Instead, migrations are likely to be scattered over a larger area as defined by the focus of telecommunications companies' marketing efforts. This approach will be used until the majority of



David Brown, Business Relationship Manager for Digital Telecare for Scottish Local Government, further explains the move to Digital Telephony.

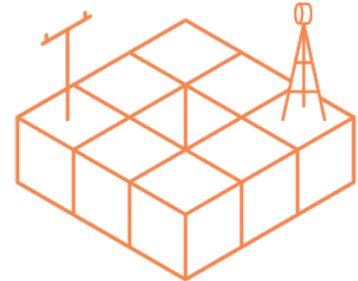
a telecommunications company's users in an area have been migrated to digital services. At this point it is likely that remaining analogue customers in that area will have no choice but to move to a digital service in order that the telecommunications provider's analogue equipment can be decommissioned.

The move to digital phone lines will also have an impact on Alarm Receiving Centres (ARC). ARCs are 24-hour hubs which prioritises the user's personal safety by monitoring services and providing an emergency response if necessary. Currently, ARCs connect to the phone network using either multiple phone lines or ISDN services. Going forward, these will need to be upgraded to VoIP phone lines which cannot be completed until all users have moved to digital telecare. Partnerships will need to contact their existing ARC supplier to determine the extent and costs of this upgrade.

## FREQUENTLY ASKED QUESTIONS

### WHAT DOES THIS ANNOUNCEMENT MEAN FOR TELECARE USERS/ PROVIDERS?

The process of moving users to digital telephone lines has started in the following Scottish exchange areas; Corstorphine (Edinburgh), Abbeyhill (Edinburgh), Boreland (Dumfries and Galloway), Ringford (Dumfries and Galloway), Southwick (Dumfries and Galloway), Kilmarnock (East Ayrshire), Great Bernera (Western Isles), Daviot (Highlands), Achnasheen (Highlands), Aultguish (Highlands), Altnaharra (Highlands) and Lempitlaw (Scottish Borders). Existing telecare services may not operate reliably if they are connected to a digital phone line. This is because:



- Digital phone lines are not designed to support analogue signalling, such as that used by existing analogue telecare protocols. This means that signals can get distorted, resulting in a proportion of telecare calls failing to connect correctly to the alarm receiving centre.
- Digital phone lines do not operate in the event of a power cut meaning that telecare users will be unable to make calls.

Telecare providers need to have a digital telecare solution in place to ensure that users can be provided with a reliable telecare service once they have been migrated to a digital telephone service.

### HOW DO I KNOW IF A TELECARE USER IS CONNECTED TO ONE OF THE AFFECTED EXCHANGES?

To find out which telephone exchange a user is connected to a phone number or postcode can be entered in to the [BT Wholesale DSL Checker](#) or [Thinkbroadband](#).

### WHEN WILL ANALOGUE TELEPHONE SERVICES IN THESE EXCHANGE AREAS STOP WORKING?

The announcement for these exchanges sets a date after which it will no longer be possible to have a new analogue line installed (June 2021). Existing analogue telephone lines will continue to work after this date, however, there will come a point where these existing lines will need to be migrated to a digital equivalent. There is currently no set date when this will happen in these exchange areas. These exchanges have been chosen because Openreach believes that at least 75% of premises in these areas will have access to digital telephone services by June 2021. Existing analogue telephone users in these exchange areas will be offered a range of telephone and internet services that use these digital services. This customer-led voluntary migration to digital telephone services will be used until a point where a mandatory migration of late adopters is introduced. This mandatory migration will start no later than 2024, however it may start earlier.

### DOES THIS ANNOUNCEMENT ONLY IMPACT BT CUSTOMERS?

No. This will impact customers of most telephone and internet providers. Openreach provides wholesale voice and data services to a large proportion of telephone companies. This means that users who obtain telephone services from BT, Sky, Talktalk, Plusnet and the Post Office -amongst others- are likely to be impacted.

Virgin Media customers will not be impacted by this announcement as they are completing their own digital phone lines programme and their customers will be moved to new services over a timeframe similar to Openreach's.

### WHY ARE SO MANY OF THESE EXCHANGES IN RURAL/REMOTE AREAS?

Openreach can only set stop-sell dates for analogue services where it is confident that suitable digital alternatives exist. Openreach believes that exchanges where a stop-sell date has been set will all have digital services available to at least 75% of premises by June 2021. Some exchanges on the list are already at or above this level while others are expected to reach this level in the next 12 months. This 75% threshold will be met either due to the commercial roll-out of broadband services, or because of the Scottish Government programme, including R100. R100 provides broadband services in areas that the commercial roll-out will not reach, predominantly rural and remote areas. This means that some of these rural/remote exchanges may meet the availability threshold before some more urban areas.

### WILL MORE EXCHANGE STOP-SELL DATES BE ANNOUNCED?

Yes. Openreach will continue to add exchanges to its stop-sell list over the coming years. The Digital Office will monitor these announcements and keep Partnerships up to date on the latest position.

## WHAT HAPPENS IF A USER HAS ISSUES WITH THEIR TELECARE SERVICE FOLLOWING A MIGRATION TO A DIGITAL TELEPHONE LINE?

The Digital Telecare programme can potentially provide advice on how to resolve any issues or escalate to Ofcom, where required.

## WHAT MATERIALS ARE AVAILABLE TO SUPPORT PARTNERSHIPS IN THE TELEPHONY SWITCHOVER?

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**[Analogue Telephony Switch Off Update May 2020](#)**: This document provides further information on the analogue telephony replacement process using detail that is now starting to be released by Openreach (part of the BT group).

**[Digital Telecare Telephone Network Awareness For Partnerships](#)**: This document provides an overview of the plans Telecom providers have for their digital phone line upgrade process and the impact this will have on telecare services.

If you have any questions relating to this Insight Service piece or the wider Digital Telecare environment, please [get in touch](#).