

# Exchange Only Lines

As the Digital Scotland rollout of fibre gathers pace, many people are discovering that their telephone/broadband connection is an "exchange only" (EO) line. Most people do not know what this term means and many are concerned they will not be able to benefit from the rollout of fibre broadband. Find out what 'exchange only' means and discover how Scotland is leading the way in tackling the engineering challenges these lines create.

## What exactly is an EO line?

Telephone and standard broadband connections are made over a copper cable that links your property to the network. To reach the network, this copper cable can either be connected to a green roadside cabinet near your premises, or sometimes the copper cable connects directly to your local telephone exchange. This latter type of connection is what we call an "exchange only" or EO line.

History and a large number of small communities spread over a large geographic area means that there are considerably more 'exchange only' lines in Scotland than in the rest of the UK. This means that Digital Scotland has built a wealth of expertise in dealing with the challenges of EO lines. So if you have an EO line, we hope this factsheet will dispel a few myths and put your mind at rest.

## OK, so what's the issue?

Mostly we use 'fibre to the cabinet' to bring fast fibre broadband to homes and businesses across Scotland. With this technology, engineers build a second 'fibre' cabinet next to a green roadside copper cabinet. This fibre cabinet is connected to the fibre network and then to the copper cabinet, bringing faster fibre broadband to the homes and businesses served by the copper cabinet. The problem is that for homes and businesses with EO lines, there is no copper cabinet already in place: Their lines connect directly to the telephone exchange! So to enable these premises for fibre broadband, the engineers have to

build not just one but TWO new cabinets – both a copper cabinet and a fibre cabinet, as well as connect up the two and re-arrange the lines. As you can imagine, this takes longer to sort out.

## Just why is it so much more complex than usual?

Connecting EO lines is considerably more complicated than connecting "normal" phone lines to the fibre network because it involves building twice as many cabinets. Amongst other things, this means:

- Twice the number of planning permissions are needed
- The copper cabinet and the fibre cabinet need to be as close as possible to each other – and it's not always all that easy to find suitable locations
- EO lines in larger communities are often in the town centres near the exchange and it's tricky to arrange planning and traffic management in town centres
- The work of re-arranging the copper wires is highly skilled and time consuming

## How are we rising to the challenge?

We have already connected over 200,000 Scottish properties with EO lines to the fibre network by Spring 2016. By the time the Digital Scotland programme is completed by the end of March 2018, we will have brought fibre broadband to over 320,000 properties which originally had EO lines.

## What this means for you

If you have an EO line, we regret that it can be hard for us to tell you exactly when you will be able to connect to fibre broadband (or whether you will definitely be able to do so) as well as to let you know what speed you will get in advance. Our engineers are working hard to find the best solutions for as many people with EO lines as possible and to carry out all the complex work required just as soon as possible.

## The Good News

The good news is that the vast majority of people with EO lines in Scotland will be able to connect to fibre broadband by the end of the programme in March 2018 and they will be able to enjoy exactly the same fast broadband speeds, reliability and quality as everyone else.

# "Fibre broadband is allowing our family to live our lives to the full and make the most of our leisure time"

Gordon Forbes lives in Glasgow with his wife and two young children. When he moved to a new home, he was initially disappointed to discover that it was not possible to connect to superfast broadband as the premises were on an 'Exchange only' line.

He says: "The house is about 300 metres from the exchange. Although I understood the technical issues around 'exchange only' lines, it did compound the misery. It seemed particularly ironic and frustrating to be so close and yet so far!"

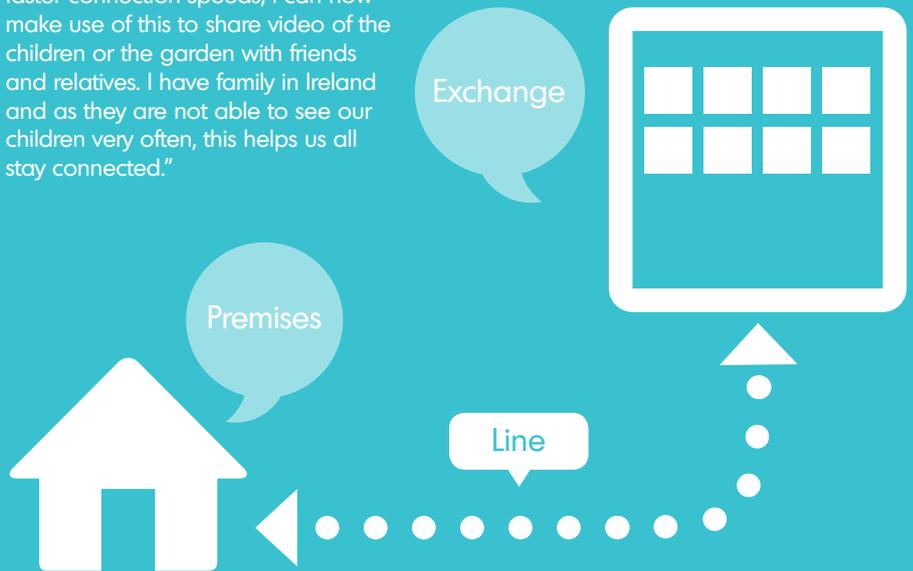
Gordon was therefore delighted when a new green cabinet was erected just outside the exchange and he was able to connect to fibre broadband. He says: "It has made all the difference to us. We can now rely on internet speeds of 40 Mbps download and 10 Mbps upload. My wife and I both enjoy streaming 'catch up' TV and films through Amazon Prime as well as music through Spotify. Before we had our superfast connection, we often experienced buffering. Now we have no problem at all. Fibre broadband also means we can choose to watch different programmes or do more than one thing online at the same time. Previously, the connection would only allow us to stream one thing at a time. I am relieved I no longer have to watch 'Emmerdale' all the time, just because my wife is watching it!"

"Of course, the internet is central to our lives in so many ways. We shop online, my wife surfs the net to download arts and crafts patterns for the children, we use it for research and the children stream cartoons. It was really frustrating when we could not all be online together at the same time, so it is fantastic that we now all have the freedom to follow our own interests and enthusiasms."

Gordon continues: "The faster upload speeds are also transforming what I am able to do online. For example, I like to use Periscope. This allows me to broadcast video on social media direct from the camera on my mobile phone. With the faster connection speeds, I can now make use of this to share video of the children or the garden with friends and relatives. I have family in Ireland and as they are not able to see our children very often, this helps us all stay connected."

He adds: "Faster upload speeds also mean it is now feasible to make full use of my Plex Home Media Server. I can now upload all the TV programmes and music I want onto the server and take my selection with me wherever I go. This is especially useful when we go away with the children but even when I am at work, it means I can always have my favourite entertainment to hand."

Gordon concludes: "I am so pleased that the issue related to our home being on an 'Exchange only' line was overcome satisfactorily. Fibre broadband is allowing our family to live our lives to the full and make the most of our leisure time."



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