What is this document?

This document is intended to help the community transition to FTTP subsequent to the completion by Openreach of the infrastructure installation which has a completion date of 23rd March 2023. The community affected by this project is Abbotts Ann Parish, Monxton and a number of properties in Amport. Abbotts Ann Parish means Abbotts Ann, Little Ann, Abbotts Ann Down, St John's, Red Rice, Little Park and the western part of Anna Valley.

This document has been written in layman's form and where technical terms need to be used they are explained.

What is FTTP?

Fibre to the Premises (FTTP) is the new full fibre Internet solution that connects your premise directly to the nearest exchange. This means your Home and/or business can benefit from speeds up to 1 gigabit per second with much

lower latency than other technologies.

What do you mean by Lower Latency?

We are affectively talking about delay. This is very important particularly when having phone calls, playing on-line games or watching TV using your broadband connection. With FTTP you'll normally get a lower amount of "lag" or latency on your connection. According to Ofcom, the UK telecommunications regulator full fibre broadband has a typical latency of around 7-8 milli seconds. This compares with 10-12 milli seconds on normal fibre and 15-35 milli seconds on normal copper broadband.

Why should I move to FTTP?

If your current broadband connection works fine for you, you may ask this question. Whilst you may not need the increased speed and reliability you will still need to change to FTTP. The reason is that ALL the current technologies used in our community other than leased lines use copper wire lines from your local green cabinet to your property. In July 2025 all copper wire phone services are going to be switched off.

So, the bottom line is if you decide not to move to a full fibre connection, then in 2025 you will have no connection at all.

Does the FTTP have my phone number associated with it?

NO it will not have a phone number associated with it. Instead, it has a Service ID number assigned to it which for BT it starts 06 and most look like an email address. This is only useful when talking to your ISP in a fault situation. Most ISP's may not even ask for it and just use your address.

What about my land line phone number?

Many people may be concerned about the loss of their phone number during the upgrade. People and businesses have the right, by law, to keep their telephone numbers regardless of who they choose as their phone company. Ofcom's rules mean all telecoms providers must let customers take their telephone number with them when they switch providers.

Whilst the law related to your landline number is on your side, some technical difficulties can still cause problems which will be detailed later in the document.

What do you mean by Infrastructure implementation?

During the period until the end of March 2023 Openreach are installing fibre cable ducts where required, fibre cables to telegraph poles and exchange related equipment. The infrastructure when completed will be available near to the edge of your property. This may be the nearest telephone pole or manhole.

When will the fibre be connected to my Property?

Your property will not be connected to the fibre infrastructure until you have upgraded or contracted with your current or another Internet Service Provider (ISP).

Once you have purchased a broadband upgrade or new service, then your ISP will request Openreach make the connection to your property.

You fibre cable will come to you by the same route as your current landline phone cable meaning if it is by overhead wire then you will be connected by overhead fibre. If it is underground to your property by a duct then Openreach will feed it up that same duct.

When will I be able to order my FTTP Upgrade?

At present, some ISP's are offering new and existing customers the opportunity to renew or setup a new contract for FTTC with a free upgrade when FTTP is available. This may be

an acceptable option for some customers, but normally the ISP wants to lock you into at least a 24 month contract.

Otherwise you will have to wait until Openreach formally informs the ISP's that they can sell FTTP products in Abbotts Ann, Monxton and parts of Amport.

The first phase of properties in Little Ann goes live at the end of November 2022. You can check yourself when your property goes live by going to the Openreach web site at https://www.openreach.com/fibre-broadband/ultrafast-full-fibre-broadband and enter your post code.

Do all ISP's offer phone services?

NO not all. The large well known ISP's provide phone services. This may be part of your broadband package or as a bolt-on.

It can often be much cheaper to have your VOIP phone service from a separate VOIP company. This is discussed in more detail later.

What do you mean by VOIP?

VOIP means Voice over Internet Protocol as it provides a means to call and receive normal phone calls across the broadband without the need to be connected to a traditional land line.

Calls made using VOIP are cheaper than traditional landline and mobile calls.

What is the biggest negative to having FTTP?

In a word "Power" as the Openreach modem and your hub need to be plugged into mains power all the time. Unless these are powered by a backup battery or UPS (Uninterruptible Power Supply) then your only option during a power failure is to use your mobile phone.

How much will FTTP cost as a residential Customer?

Below is the most recent data available list of retail (i.e. non business) ISP's for 100 megabit per second connections.

NOTE: All packages include unlimited data usage, except <u>AAISP</u>'s where there is 5 TeraByte option used. Some ISPs discount the price for their first contract term, so for those then the post-contract price in brackets. The data is from early August 2022.

Ultrafast (100Mbps) UK ISP Plans - Openreach

ISP	Price	New Install	Contract	Router
Vodafone 115/20	£25 (£36)	£0	24	Yes
<u>EE</u> 110/15	£28.50 (£40)	£0	24	Yes
<u>Plusnet</u> 160/30	£29.99 (£35)	£0	24	Yes
Shell Energy 115/20	£30.99 (£37.99)	£0	18	Yes
<u>Giganet</u> 160/30	£32	£55	12	Yes
<u>TalkTalk</u> 160/30	£32 (£39.95)	£0	18	Yes
Sky Broadband 160/30	£32 (£40)	£0	18	Yes
<u>Direct Save Telecom</u> 115/20	£34.95	£8.95	18	Yes
<u>BT</u> 160/30	£35.99 (£39.99)	£29.99	24	Yes
<u>Pulse 8</u> 115/20	£36	£99	1	No
<u>1310</u> 115/20	£36	£60	12	No
No One (Trunk Networks) 110/15	£35.99	£60	24	Yes
Zen Internet 115/20	£37.99	£19.99	18	Yes
<u>Vispa</u> 115/20	£38.99 (£44.99)	£0	24	No
Cerberus Networks 115/20	£39	£48	12	No
<u>Cuckoo</u> 115/20	£39.99	£0	12	Yes
Unchained 160/30	£41.99	£0	12	No
<u>Aquiss</u> 160/30	£42	£0	12	No
<u>iDNET</u> 220/30	£42	£60	24	Yes
<u>webmate</u> 160/30	£42.50	£0	1-12	Yes
Freeola 160/30	£42.98	£0	1	No
File Sanctuary 160/30	£43.20	£0	12	No
<u>AAISP</u> 115/20	£47	£100	12	Yes
Spitfire 115/20	£50.40	£0	24	Yes
<u>Optanet</u> 160/30	£50.40	£0	24	Yes
Juice Broadband 160/30	£52.99	?	12	Yes
Distance Voice 160/30	£55.14	£64.80	12	No
Stream Networks 160/30	£61.50	£0	24	Yes

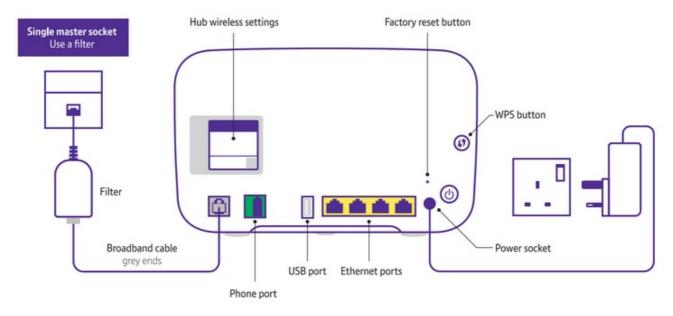
How many UK ISP's offer FTTP?

More than 50 UK ISP's provide FTTP services, but many are regional or business broadband suppliers. Business ISP tends to be less well known other than the very big ones like BT and Talk Talk Business. My ISP is Wavenet which is very good, but focused on business.

How can I use VOIP over my current BT broadband now?

Many BT and couple of other companies who resell or use the BT products can arrange to convert you to VOIP now provided you have a BT HUB 2 with a green phone socket on the back.

BT has a product called "Digital Voice" which is their name for VOIP which they are slowly converting every customer who currently has or could have a BT HUB 2. Other companies like give their hub a different name, but the key thing it must have is a BT type phone socket at the back of the unit.



To begin with, BT is offering Digital Voice only in certain scenarios to manage the number of customers moving over. Most BT customers in the village will be eligible for Digital Voice.

When you place an order, they will let you know if you're eligible and take you through the benefits so you can decide whether or not to move across to Digital Voice at this time. If you have special services, like a monitored burglar alarm or health pendant, you'll need to let your provider know you're moving over to Digital Voice.

If you change or renew your contract in most cases you will be upgraded to Digital Voice.

In practical terms after you received confirmation of an upgrade to Digital Voice then a text message and email will be sent to you with the date of changeover. On that date all you have to do is unplug your analogue phone and plug it into the green socket on the back of the BT HUB 2.

Upgrading to Digital Voice is Free and it also means that when you do have your broad upgraded to FTTP you do not need to be concerned about your phone or phone number.

What about VOIP with other non BT related company's?

There are many options for people who are currently with an ISP that does NOT provide a router with a phone socket or you have an old router (BT HUB 1) without an analogue phone port.

The options are:-

- 1. If you are a BT or related company like PlusNet then request a new router which will have a BT type green phone socket on the back.
- 2. If your router is a non ISP supplied router, then check if it has a phone socket. This phone socket will almost always not be a BT type socket it will be a smaller RJ11 socket. In all cases it will be marked phone socket.
- 3. You can use VOIP adapter which is a small square box which connects to your home router network socket. It requires being setup and you will need to apply for a SIP (Session Initiation Protocol telephony) account, more on this later.

The best option for most people in most cases is to change your router to one with an internal VOIP adapter. All the major IT company's provide routers which meet these requirements including:-

- Linksys EA 8300 Max-Stream
- TP-Link Archer VR2800
- ASUS RT-AC68U
- Netgear Nighthawk X10
- SonicWall TZ270
- TP-Link Archer C1200 Router
- Linksys E7350 Router

If you plan to use a VOIP adapter you will also need a SIP account and the two major companies for these adapters are Cisco ATA191 and ATA192 or the Grandstream HT-801 and HT-802.

Do all ISP's offer a phone service

NO, some of the smaller ISP's only offer an FTTP broadband service. It's not a problem and sometimes it can actually be a financial benefit. It does mean that you will need a cheap VOIP account with another company.

What is a SIP account?

A SIP account is a set of credentials that allows users to make voice and video calls over the Internet using VoIP technology. A SIP address is the 'SIP' version of a telephone number - a unique identification (e.g. keith@littleann.onsip.com) that allows you to make and receive calls. A SIP address looks like an email address, with a username and domain.

You can create new additional users on your SIP account; each person is assigned a unique SIP address. One of the main reasons to create a SIP account is that SIP-to-SIP calls - calls made between two SIP addresses over the Internet - are typically free. Calls to landline and mobile phones, on the other hand, come with per minute costs because they have to link to the traditional phone network.

You can use SIP addresses on a variety of compatible devices/phones, including laptops, tablets, smartphones, and business phones. Free SIP accounts are available with some VoIP providers. The best UK SIP providers tend to charge £5 per month without a contract commitment. An example is a very good UK VOIP company called Voipfone at https://voipfone.co.uk

What is the FTTP installation Process?

Once you have decided if you are going to upgrade your existing FTTC broadband with your existing ISP or contract with a new ISP and agreed a contract, then they will request Openreach to make the connection to your property.

The first thing Openreach will do is install the CSP box to the external wall very close to the duct that the current phone comes from as seen below.

As the boxes are fitted to the outside of the building Openreach may or may not make an appointment to perform this work depending on how your property will receive the fibre.

Then at a later time they make an appointment with the householder to install the actual fibre cable to inside your property along with the small fibre modem which needs to be near a mains power point.



Normally the modem would be fitted on the inside of the wall at a suitable place normally next to your existing Master Socket, but it can actually be anywhere on an outside wall

The modem to be fitted inside is quite small and is shown below



The yellow plug shown in the image above is the RJ45 cable which goes to your router and MUST be plugged into the WAN socket if you already have a suitable router fitted and the ADSL socket which was previous used will no longer be needed.

If your current router does not support a RJ45 WAN (Wide Area Network) then you will need to either use the router supplied by your ISP or purchase a suitable unit. Most home users normally use the ISP provided router, but business customers may wish to purchase a more secure router such as ones produced by Draytek.

The householder is responsible for all the cabling from this modem in their house.

Unlike the existing Openreach master phone socket, this modem needs power which must not be switched off, so it needs to be very near a power point.

Provided the RJ45 cable is to CAT 6 or 7 spec then it can be up to 100 metres meaning it is generally easier to have the router near the Openreach modem, but certainly not a requirement.

Are there limitations on cable length from CSP to Modem?

NO, the only limitation is that the fibre cable must enter your home on an outside wall normally at ground level. A hole will be drilled through your wall to allow the fibre cable into your home.

Prior to the arrival of Openreach you should consider exactly where you want the modem remembering it needs to be quite near a 13 amp mains power socket.

Can I use my current old analogue landline phone to make and receive calls over the broadband?

Yes, any old analogue landline phone can be used as an IP phone on ANY broadband connection (FTTP, ADSL, VDSL etc..) either via your router phone socket if available or an analogue adapter.

If you want or need to use an analogue adapter to make your current analogue phones into VOIP phones, then there are several companies that produce these adapters and one of the best is Cisco.

An adapter such as a Cisco ATA 191 or 192 which you can see below or a non ISP router with analogue ports such as a Draytek router

You will also need a SIP account from an independent provider such as https://voipfone.co.uk if your preferred ISP does not provide phone services or you don't want to use them.

NOTE: A couple of the big ISP's block port number 5060 used by IP phones to force their customers to use their expensive phone services, so beware, but most don't.

The main negative issue for IP phones are they need power along with the router and adapter. Old analogue phones do not need any power as they take their power from the phone line.

It is suggested you invest in a cheap UPS (Uninterruptible Power Supply) or battery backup in case of mains power failure.



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