Do I Need Fibre-Optic Broadband?

Please note – this isn't intended to be an accurate technical guide!   It's just to give you a flavour of what fibre-optic broadband offers, what the options are, and why you might want to consider it. At the end are the steps to take if you want to get fibre broadband.

Introduction

Internet connections are graded according to their "speed" - the amount of data that can be sent down them , measured in mbps - megabytes per second. The speed available mainly depends on the type of cable, how long the cable is, how many users are sharing it, ("contenders") and the "bandwidth" you have signed up for – ie how much of it you're allowed to use.

Generally the longer the cable, the more the data corrupts. The internet then repeats that part of the signal until it gets through uncorrupted. So on a long line, most of your capacity may be taken up with repeating corrupted messages, reducing the amount of new data you can get across.

BT Openreach are a separate part of BT that provides the infrastructure – the main cables to the local cabinets – to connect up phones and internets. All other providers, including BT, then rent the use of the services for the services they sell to us.   On brand new estates, the developer lays the ducting for phone or fibre to houses, and then contracts with a service provider (ISP) to start offering services in the early years when the estate isn't full, and they then contract with BT Openreach. After a bit, other ISPs can offer services there.

It's important to understand that just because FTTC is available in your area doesn't mean that you can get it via your normal service provider. Service providers make their own decision about which of the possible services they offer. The BT Openreach site should show you whether it's available for service providers to offer. Ask around, or try BT themselves to double-check that it is available.

The Types of Connection

The old cables were the standard **copper wire** phone cables. They corrupt badly with distance, and we are a long way from the exchange, which is why Monkston ward could never get fast speeds on them. They should carry up to 20mbps, but Monkston typically got 2.5 mbps on a 10 mbps package, and Walton Grange gets 0.25!

There are various ways of boosting them (**ASDL** is the most common) but they're not always available, they're limited in the speed they give, and they cost more.

You can also connect your **mobile phone** to a computer or view the internet or email on your mobile via a wireless radio signal. The quality of connection depends on how good a signal you can get so a crackly phoneline will mean a slow internet connection.

Fibre-optic cables are the new cable that BT Openreach is gradually laying in each area, in addition to the copper phone cables. They carry far more data in the first place, and only corrupt the data very slightly with distance, so you can get much faster speeds with them.

Fibre can be laid just to the local cabinet, **(FTTC)** and then the signal is passed along your phoneline from there, or it can be laid all the way to your premises **(FTTP),** giving you even faster speeds.

What Speed do I Need?

Very roughly this is the sort of thing you can do on each main band of speed – with the services that gave this speed in mid 2013:

Under 2mbps (a long copper line) allows you to send small email files and view simple websites, but it's very slow even to send pictures, and useless for video. Complex websites like forms or mapping sites probably won't work at all. It will take so long to pass the signal that your computer will say it can't connect. Service providers will usually put a 5mb limit on the size of email you can transmit.

10 mbps (a short copper line, mobile phone connection, or basic fibre package) allows you to send larger emails with attachments and a few pictures, and simple games and does cope (albeit a little jerkily) with low-resolution video and TV – but it's not recommended! Most website forms will work, and mapping will usually work though it's slow. Service providers will usually still put a 10mb limit on the size of email you can transmit.

35 mbps (fibre to the cabinet) This is recommended for video, complex mapping sites, some games, and is often the minimum needed for heavy-duty scientific programs etc. Larger emails are often allowed.

65 mbps (fibre to the premises) This gives good video and TV and will cope with most heavy-duty scientific software – though that market is offering more all the time if you have really high speeds!

The speeds offered on **each type of fibre connection** will increase dramatically over the next few years.

What will be Available?

BT Openreach has cabled many parts of our area already. It varies whether they've installed fibre-to-cabinet or fibre-to-premises, but a low-speed package should always be available, and then higher speeds depending on which type your estate has.

The new BDUK project phases 1-7 is installing fibre-to-cabinet in most areas where there's no fibre so far, but they may install fibre-to-premises "where it's easier".   We're trying to nail down which areas will get which.

Phase 8 is the areas where they say it's not viable on this funding to lay fibre. We're not at all clear why – we can't see what the problem is in two of the areas, at least! But in those areas they will use the various speed-up technologies to speed up the copper cable. We think that's not acceptable without VERY good reason, and we're pushing for those to be FTTC as well.

The sting in the tail for New Homes

The BDUK project only covers properties occupied at the beginning of August 2014. That didn't include around a third of the eventual properties in Walton Grange. (And the new ones coming in Bedgebury Place Kents Hill).

If BT cable the area with FTTC, then all new households taking a landline will be able to purchase FTTC broadband on it. But if they install FTTP, then new homes might wait a long time to be individually cabled. And if they're in phase 8, it could be 5 years off or even more.

What can I do?

If you've not got broadband, please:

1. Use the BT Openreach web checker to see what they say is available. If that's what you want, contact your service provider, ask around for others, or contact BT, and go ahead and buy!
   BT Openreach webchecker: http://www.dslchecker.bt.com/

If it's not available, or if the sales people tell you that it's not available yet:

2. Please "express interest" on the BT Openreach website to say you want fibre. In theory, they take the numbers of people into account when deciding the plan timescale and assessing costs.
   BT Openreach expression of interest:
   http://www.superfast-openreach.co.uk/expression-gen.aspx

3. PLEASE complete our survey as well. We suspect that BT don't act on all the expressions of interest they receive, and if we also get it, then we can challenge them on that.
   Survey: https://www.surveymonkey.com/s/6B2RZ99

4. If BT say it's not available even though the Openreach website or out table says it is, please tell us so and give us your landline number and postcode. They seem to have been a bit optimistic about what they could cover by March 2014 – or the BT sales office is still confused!
   Contact: Jenni Ferrans j.ferrans@mklibdems.co.uk

5. Please let us know if you are willing to help campaign – talking to the press, sending emails to BT, etc. We need to make a lot of noise fast about any areas where the proposals really aren't good enough!

Thanks very much

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