Broadband Update 8th March 2015

This is the fifth news update on the subject of broadband and proposed improvements to the service available to the village. Whilst the BT deployment proceeds to plan, this newsletter focuses on Gigaclear where a critical decision point is imminent.

See the Village web site Broadband page for previous issues.

Gigaclear Final Push

Whilst the sales effort to take pre-orders for Gigaclear has gone well, they have still to reach their own target for penetration before they can commit to the next stage which is deployment of the network. The take-up in villages where Gigaclear will be sole supplier has been very strong, whereas in Medbourne we are near the bottom of the league in terms of the percentage of properties that have ordered. In part this is due to Gigaclear having withdrawn the sales team temporarily to deal with another region.

The sales team are now back here in force and they are working to achieve the target by the end of March. In Medbourne it is very important for us to contribute to this effort for two reasons:

1. Most of the other villages have reached a saturation point so further orders are now less likely.
2. We must not assume that good take-up elsewhere will carry Medbourne over the line.

Taking up the last point, it is my understanding that Gigaclear will examine the sales data against the implementation cost at a granular level and come to decisions about implementation by area – this is not all-or-nothing for the whole Welland Valley. So, for example, Blaston already knows that the network will not be deployed there unless a defined number of residences pre-order.

Gigaclear has drafted in extra sales people. This has generated some overlap, e.g. duplicated sales visits; any such issues have been reported to Gigaclear at a senior level.

The news on deployment of the network is good. The Gigaclear cable is already installed as far as the bridge over the Eye Brook just outside Stockerston. Once the implementation decision is confirmed it is expected that rapid progress will be made in bringing the capability to the Welland Valley.

What you need to do

- If you have already ordered Gigaclear then please encourage your friends and acquaintances in the village to follow suit, if it's the right solution for them.
- If you have sat on the fence because you don't really understand all the issues then please read the section ***Fibre Optic Broadband Explained*** at the end of this newsletter. Note that this section is Identical to that published in the last newsletter. Also, please consult previous newsletters on the Medbourne Village web site. As ever, please feel free to contact me with any questions.
- If you have not been contacted by Gigaclear yet then please let me know and I will pass your details on to the company.
- If you have spoken to Gigaclear but remain undecided or unclear for any reason then please feel free to contact me for completely impartial advice.

- Please put this on your To Do list for March – to reach a definite decision about which broadband solution will be right for your residence, business and family.

Please be aware that a significant number of people in the village have already ordered Gigaclear. Many of these have strong business reasons for needing Gigaclear's solution. Consequently, this is about supporting our community. Please also be aware that, should Gigaclear deploy in surrounding villages but not in Medbourne, there will be a noticeable impact on our house prices.

Fibre Optic Broadband Explained

This section is provided mainly for non-techies so some readers may wish to stop here.

Fibre optic cable transmits data at the speed of light. A light pulse input at one end is immediately visible at the far end and, unlike light, it can go around corners. At either end of a length of cable a computer converts information into light pulses or light pulses into information. These computers are what constrain the speed of the network, not the cable. As time goes by these computers are upgradeable, either by changing the hardware or the software. As these computers are in our home (e.g. routers), or in the cabinets of the network provider, they do not present a major logistical challenge to upgrade.

Fibre to the property (FTTP) is the term for a network where every cable between a property and the World Wide Web is fibre optic. By contrast, fibre to the cabinet (FTTC) relies on copper wire for the last hop from the cabinet to the home. This copper connection slows down the signal according to distance travelled. For instance a speed of 80mbps at the cabinet will degrade to 24mbps after travelling through 1.2km of copper wire.

It is also important to know the predictions for the increase in broadband traffic. In 1989 I attended a future technology conference at MIT (Massachusetts Institute of Technology). The keynote address from Prof. Nick Negroponte concerned the (immodestly titled) Negroponte Switch. This theory stated that, in time, every signal we receive through the atmosphere will arrive via a cable and every signal we receive via a cable will come through the atmosphere. Twenty five years on the trend is clear; many people now use a mobile phone exclusively rather than a landline, and many of us catch up on missed television by downloading it from the internet.

Whilst the current standard for television is "HD", Ultra High Definition (UHD) is on its way with 4 or 8 times the resolution of HD (known as 4k and 8k), hence the bandwidth required for this is much greater than that required for HD. For example, a two-and-a half-hour film shot in 4K would take over 12 hours to download at 1000mbps.

Recently, BBC announced that BBC3 would only be available online, so we have the first UK instance of today's television coming via a cable rather than an aerial. Eventually, television signals will be simply too "fat" to be broadcast via an aerial and, when this happens, Nick Negroponte's prediction will come true.

Hence, fibre to the cabinet (FTTC) is, at best, a stop-gap solution. Before long we must have fibre to the property (FTTP) and it must be upgradeable to speeds far greater than the 1000mbps discussed here.

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