

## **BUUK Response to the DCMS Future Telecoms Infrastructure Review: call for evidence**

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### **Introduction**

Having reviewed the Call for Evidence, GTC believe that the majority of the questions posed are focussed on the future full fibre over-build of existing copper networks in the UK and overseas. As a market leader in the roll out of full fibre in the new build sector, we do not feel we can provide the depth of experience you are looking for in relation to overbuild and instead we have focused our response on two key issues we feel Government could help to address in the market, to protect customers and aid investment.

We believe this response is consistent with the aims of DCMS who are seeking thoughts on how Government can ensure that the UK has the telecoms infrastructure it needs to meet the future needs of consumers and businesses.

GTC shares the Government's view that full fibre is the only way of providing future proof fixed telecommunications services and that the successful rollout of 5G and other future mobile and nomadic services will be heavily reliant on deep full fibre penetration. It is hence very important that the future market structure is right, to encourage the long-term investment needed to secure ubiquitous world-class digital connectivity, that is seamless, reliable, and long-lasting. Further, it is essential that it should be widely available and affordable to UK businesses and domestic consumers.

GTC also share Government's view that the future fixed market for full fibre will require a patch-work of large and smaller networks that deliver the future proof speeds UK businesses and consumers need, whilst also delivering customer choice to protect customers from high prices and poor service.

As described in the following section, GTC are entirely focussed on the new-build sector and specialise in the delivery of utility infrastructure, including telecommunications to both low density and multi dwelling housing developments.

This response will comprise of four sections:

- Introduction to GTC
- New Build Sector
- Ensuring Choice for UK businesses and consumers
- Infrastructure Competition in the new build sector

## Brief Introduction to BUUK's Telecoms Business

GTC is a subsidiary of BUUK Infrastructure Limited ("**BUUK**"), which is a provider, owner and operator of last-mile utility infrastructure for new-build developments and homes. Over 1 million homes currently receive their essential utilities from BUUK provided networks, and some of these now include FTTP. Once built these public utility networks are owned and operated under licence and regulated as appropriate by Ofgem or Ofwat. BUUK has all the same licence obligations and duties as any other utility network operator.

BUUK offers a realistic alternative solution to house builders for telecommunications services, providing a timely, efficient and cost-effective quad-utility connection service that removes the frustrations of delay and inflexibility that house builders often experience in their house building programmes where the services are provided by entrenched incumbent utility infrastructure providers.

Additionally, BUUK **always** lays fibre-to-the-premises ("**FTTP**") (also known as full fibre) and offers a range of services starting with download speed to householders starting at 60Mbps with options of higher speeds up to 1Gbps - available with no distance related speed degradation. Also, Householders can also choose symmetrical upload speeds which is much appreciated by homeworkers.

BUUK offers telecommunications services under four different brands, each targeted at a different customer segment:

- I. FTTP connection services are marketed to housing developers under the GTC, Power-On Connections ("**POC**") and Metropolitan brands, usually as part of a multi-utility connection service.
- II. Independent Next Generation Networks Limited ("**INGNL**") takes ownership of the fibre after it has been constructed and has "code powers" under Section 106 of the Communications Act 2003.
- III. Independent Fibre Networks Limited ("**IFNL**") markets wholesale fibre connectivity to retail CPs using infrastructure owned by INGNL. For example, Direct Save Telecom provides services to households via a wholesale contract entered into with IFNL. IFNL actively markets both active (Ethernet Bitstream and Managed services) and passive wholesale services to the CP community, based on its open access network architecture.
- IV. BUUK also owns a retail ISP marketed to consumers called seethelight, offering ultra-fast broadband speeds from 60Mbps to 1Gbps.

In pursuit of the objective of making connectivity markets open and inter-connectable, BUUK has been an active participant in industry initiatives to standardise connectivity technologies between CPs. For example, we have taken a leading role within the Network Interoperability Consultative Committee ("**NICC**") that steered the development of the Active Line Access ("**ALA**") and Business to Business ("**B2B**") Interface standards. In addition, BUUK has been active with the Industry Group working with Ofcom and BT on the introduction of Dark Fibre and the refinement of Passive Infrastructure Access.

## **New Build Sector**

We believe competition is essential in driving the market to a “full fibre” with services that meet the needs of customers. Therefore, it is imperative that Government ensures that the future market structure facilitates competition in the new build sector to the fullest extent to ensure the market continues to evolve and doesn’t return to be the monopoly position that existed previously and served nobody well. It is no coincidence that as competition to provide infrastructure has increased, BT have at long last announced a belated transition to full fibre from its legacy copper model.

The structure needs to focus both on attracting the investment, and on delivering high quality choice to customers at competitive prices.

Competition in the new build sector is working well but could be encouraged to work even better. This is demonstrated by new entrants offering full fibre solutions for new housing developments (for over 8 years in advance of BT who continued to offer copper solutions against their customers desire). However, further work is required. GTC believes that competitive infrastructure provision in the new build sector should:

- a) Ensure that full fibre becomes the default telecoms solution for the new build sector, even in semi-rural and rural environments, allowing Ofcom to meet the goals of superfast broadband coverage at 30Mbps available to all EU citizens; with at least 50% of European households subscribing to broadband access at 100Mbps.
- b) Speed up the activation of new homes:
  - I. Competition will improve the performance of monopolistic providers, just as it has in the gas and electricity sectors.
  - II. Allow the deployment of infrastructure as a single step process in associated with gas and electricity to remove the need for a new trench and separate contracting arrangement.
- c) Ensure customers to move into their new homes with a live broadband connection from their date of occupation.
- d) Drive better broadband technology, the presence of a competitive market drives innovation. Competitive providers are delivering TV services across fibre and are working with CPs to determine how we can move the market on faster, for instance symmetrical services, higher speeds, data only services, etc.

## **Limited Choice For Householders on All Full Fibre Networks**

GTC are keen to offer customers connected to its full fibre networks as wider choice of CP as possible. All the utility assets that GTC operate, are wherever possible (e.g. gas and electricity) operated on an open access basis:

- For commercial customers (non-domestic), GTC has been successful in providing choice and currently has over fifty CPs, including some Tier 1 CPs, providing retail services to customers.

- For residential customers, despite our open access, the main Tier 1's including [REDACTED] [REDACTED] have not offered to provide services. Currently four independent residential CPs in addition to our own ISP, seethelight offer services. The five providers we have on-net are smaller CPs with less well known brands.

Whilst one of the Tier 1 providers [REDACTED] have expressed an interest to provide services, some of the others have been clear they do not have any plans to provide services over our fibre networks

We understand BT Openreach are in a similar position, with only a handful of brands serving residential customers over its own pure fibre networks and none of the other tier 1 providers.

To protect households, it is essential that as Government pushes the rollout of full fibre forward, customers connecting to full fibre are not disadvantaged through restriction of choice of CP. If DCMS does not act soon, the non-availability of familiar household names is going to become a well published national disgrace affecting hundreds of thousands of people.

We suggest as an absolute minimum, CPs with a universal service obligation should be mandated to offer services across all independent full fibre infrastructure and we believe the measure should go further, and the same obligation be given to all CPs above a certain customer number threshold (500,000 customers may be a suitable point).

To facilitate this, we recognise that a "common" code may be required to set out the commercial (e.g. contract terms, SLAs and pricing) and technical standards (e.g. standardised products and B2B interfaces) full fibre network providers need to adhere to.

The number of independent full fibre infrastructure providers is likely grow in the future, with the size of provider varying from a few hundred homes to many hundreds of thousands or more.

To facilitate CPs interconnecting with multiple networks cost effectively and efficiently, Government may wish to investigate the use of a not for profit clearing house arrangement which all full fibre infrastructures providers are mandated to utilise. This clearing house would not form part of the customer data-flow, but merely arbitrate between system-to-system interfaces and provide a single commercial and contractual interface. This solution is similar to how other regulated utility markets, e.g. gas and electricity have approached the question of choice.

GTC believe that it is important to act in this manner, otherwise the largest network operators could disadvantage customers and constrain competition in the roll out of full fibre networks, where for instance a developer may not select a full fibre infrastructure, even if it is the best commercially, if customers buying their homes have limited choice of CP.

As a comparison, in the energy market suppliers to domestic customers have a licence obligation to offer into a contract where requested by the customer (for example licence condition 22 of the electricity supply licence). This has been essential in developing competition in the provision of gas and electricity networks for IGTs and IDNOs. We believe a similar obligation may be required in respect of full fibre services to domestic services

## Infrastructure Competition in the New Build Sector

As explained above, it is important for residential and commercial customers in newly built premises to be able to access similar fixed telecoms services as customers elsewhere. These services must include access to ultrafast broadband services.

Building networks is expensive and require considerable investment. To create an investment case, infrastructure providers must quantify the costs associated with the deployment and operation of a full-fibre infrastructure and the revenues that can be realised from providing wholesale services. Without this basic information it is not possible to develop a business case for the investment. Investors need a degree of certainty that they will be able to earn a reasonable return on their capital, whilst at the same time taking some risk, and this fact has also been long respected by economic regulators around the world.

Networks have long been regarded as having natural monopoly characteristics, and the most efficient outcome for economies is not to waste resources duplicating them, but instead ensure protection from exploitation of users of the networks from the monopoly owner via tariff regulation. Previous attempts to ignore the network's natural monopoly characteristics have usually ended in disaster as the investors have not been able to secure sufficient payback from a duplicated investment – the insolvency of cable companies in the 1990's is an instructional example, where some duplication of BT's networks was achieved but sufficient financial returns were not made and the businesses were not able to complete a nationwide roll out.

Duplicating networks at the passive level does not lead to good customer choice, as it only works for a minority of CPs who are prepared to install and support their own infrastructure.

We believe the only efficient and logical exception should be the Openreach duct infrastructure, which has largely been funded over many decades by the generality of the UK public. These ducts should be opened to support additional new lines or the upgrading of capacity for connectivity to new developments and additional network capacity for mobile services, which are now also seen as an essential public service.

Currently PIA is available to provide NGA to residential premises, but its use for mobile backhaul is not supported. These use cases maybe the only circumstances where it makes economic sense to duplicate infrastructure. The majority of CPs are unwilling to own infrastructure outside of local exchanges or run passive middle or last mile infrastructure, preferring to buy wholesale Ethernet Bitstream services.

For Next Generation Access (NGA) Ofcom envisaged that networks would be provided on an open access basis with all CPs providing their services over the fibre using Ethernet bitstream services. These competitive active level access services offer the best solution from a business risk perspective, but also promote customer choice as multiple CPs can access customers from an aggregated hand-off location (e.g. local exchange) much more cost effectively, than connecting locally to individual housing developments and having to install their own passive and active components.

If we look at the delivery of superfast broadband by CPs to residential customers, virtually all CPs in the UK are consuming wholesale Ethernet Bitstream type products, with virtually none taking advantage of the Sub Loop Unbundled copper (passive access) solution.

Active access products have been successfully deployed across full fibre, FTTC and G.fast access networks to provide CPs with simple common Ethernet bitstream products which give access to more of the capabilities of the physical layer of the network while simply adding the minimum functionality necessary for the support of competition.

Initially driven by Ofcom as part of their NGA work, a set of industry recognised characteristics and technical requirements have been agreed by industry that can be used to define and deliver this type of active access service as defined by the NICC Ethernet 'Active Line Access' (ALA) service:

<http://www.niccstandards.org.uk/publications/ala.cfm>

In addition to a comprehensive product definition, the standard even goes so far as to define required B2B interface requirements to simplify ordering and the lead-to-cash provisioning process around the delivery of ALA services.

ALA products, as defined by the NICC standard, offers a scalable and elegant method for CPs to deliver their services to both residential and commercial customers based on a new build development.

GTC agrees with Ofcom's previous findings that a standardised ALA product will help to achieve three very important objectives:

1. To enable competition based on innovation and differentiation at the bitstream level.
2. To reduce the risk of technology isolation. Next generation access is being rolled out in new build developments by a range of different infrastructure providers. We welcome diversity and competition in infrastructure provision. However, as each infrastructure provider chooses the technology most suited to their investment case, patchworks of different technologies and network architectures may emerge. New build fibre developments will have difficulty in attracting established communications providers, if they need to change their systems, processes and products definitions in order to deliver services. Standardised wholesale access minimises the changes necessary.
3. Standardised interfaces may also help Universal Service Providers to deliver their obligations across different infrastructures and technologies cost effectively, thus limiting the burden on consumers.

Services offered using the defined NICC ALA standard further help reduce the barriers to entry for CPs as the ALA service provides a means of delivering innovation and differentiation to the CP without the need to invest in the infrastructure or standardising their own access technology. This may be very attractive to smaller CPs or those with new and innovative business cases.

GTC offers a range of ALA services across its network to address a wide range of residential and business customers requirements, with hand-off available at our local, regional and national points of presence.