DCMS

Extending Full Local Fibre Networks – Call for Evidence

A submission from the Federation of Communication Services.

The Federation of Communication Services represents companies who provide professional communications solutions to professional users. Our members deliver telecommunications services via mobile and fixed line telephony networks, broadband, satellite, wi-fi and business radio. Our members' customers range from SMEs, home-workers and micro-businesses up to the very largest national and international private enterprises and public sector users. FCS is the largest trade organisation in the professional communications arena, representing the interests of nearly 400 businesses with a combined annual turnover in excess of £45 billion.

FCS has long been concerned to ensure the nation enjoys ubiquitous and cost-effective access to business-grade broadband connectivity. Without high quality, affordable and ubiquitous connectivity – preferably available from a choice of more than one supplier -- it is impossible to deliver the hosted databases, value-added call-handling and recording functionality and cloud-based software solutions which empower business growth and efficiency in the present age.

FCS is therefore pleased to see the specific needs of the business community for Digital Communications is receiving the focus from government that is has so long deserved. Business users have been treated largely as bystanders in the broadband roll-out policies of successive governments. These policies have aimed at improving the ability of telecoms operators to sell bundled services to consumers, rather than ensuring the cost-effective provision of vital connectivity to the companies which employ them.

For too long, vital overarching policy guidance has been missing from this sector. Whole areas of the country have been left at the whim of a single incumbent network provider, and it has been impossible for businesses to plan and invest with confidence in their digital future.

It has long been FCS's view that the regulation of the UK markets for broadband and for both fixed and mobile telephony passive infrastructure need to be scrutinised from first-principles, both by the Regulator and by Parliament. In this regard, we welcome developments like the inclusion of Digital Infrastructure within the remit of the National Infrastructure Commission as a vital strategic development of the necessary resource to facilitate this process.

Nomenclature

The expression 'Fibre to the Premise' is illiterate. When used to describe a building or address, the noun 'Premises' does not have a singular form, so cannot drop its 's'.

FCS welcomes the expression 'Full Fibre', as defined on Page 4 of the Call For Evidence. Full Fibre is an extremely useful, unambiguous expression. It provides a welcome and precise distinction from 'other

kinds of fibre', and makes clear that FTTC, FTTDP, exchange-only and FTTC-plus-interim-solution approaches are outwith that definition. This includes the use of 'Docsis' and screened cable to form the final leg from fibre-enabled distribution point to the point of use.

Main observations:

1) Even with the growth of at-scale competition at the utility level in recent years, it is significant that **only the 'alt-net' providers are committed to Full Fibre solutions as standard.** At current levels of investment, UK Alt-Nets project passing 10m premises by 2020. Alt-Nets notwithstanding, the existing percentage of UK premises enjoying Full Fibre penetration is still in the low single figures. One single player still dominates the construction, maintenance and operation of the network across across most of the country. This includes not just fixed line infrastructure but mobile backhaul services.

2) Ofcom's interventions to force competition into the Business-to-Consumer and Business-to-Business levels have created the most dynamic, innovative and price-competitive reseller market in Europe. But this has come at the expense of creating genuine competition in the provision of networks and wholesale access. To encourage investment in a Full Fibre future, Government and Ofcom must now create the conditions for sustainable and effective infrastructure competition. Against this imperative, **Government should consider 'calling in' Ofcom's recommendations on the future of BT and Openreach**, published in December 2016, for first-principles re-evaluation by the Competition & Markets Authority against the findings of the DCMS Select Committee Inquiry into Establishing World-Class Connectivity Throughout the UK, and under the supervision of the House of Lords Communications Committee.

3) The choice of the expression 'Local Full Fibre Networks' for this Call For Evidence is auspicious. 'Local' in this context need not mean simply 'within a certain geographical area'. It also extends to the concept of local customers making local choices for the strategic benefit of local communities. There is an unspoken assumption across both industry and government that customers and businesses in rural areas are doomed eternally to consume whatever fag-end levels of connectivity monopolist network providers are willing to give them after they have focused their efforts on providing world-class connectivity to areas of higher population density. There is no *technical* reason for this to be the case. Indeed, it is most demonstrably not the case in countries like Finland, where the fibre deployment deliberately began on an 'outside in' basis, connecting the most isolated regions first, and then moving back to areas of high population density. This investigation should look fully at models for **empowering local communities to develop their own models** to consume price-controlled wholesale network access from the nearest point-of-presence. (See, for example, Scottish Rural Parliament broadband report. [1]

[1] http://www.scottishruralparliament.org.uk/wp-content/uploads/2016/09/SRA-Broadband-Report.pdf

Responses to Questions:

Question 1: What local approaches have been taken to date or are planned - either in the UK or internationally - to stimulate the market delivery of full fibre networks, in both urban and rural areas, and what results have they achieved? Where appropriate please provide evidence and any other additional information.

The objective of UK Government approaches in the last two Parliaments has been to deliver acceptable levels of connectivity to domestic premises sufficient to satisfy current consumer demand patterns. There has been no pre-emption in favour of full fibre solutions over tactical objectives. And these have been delivered for the most part by FTTC. Which has satisfied the twin political constraints of a desire to deliver results within a Parliamentary timetable and a systemic reliance upon the infrastructure of a single incumbent.

It is significant that the City of Birmingham's attempts to partner with Virgin were thwarted by the threat of legal challenge for breach of EU State Aid rules. Fear of State Aid conditions has also served to slow the launch and over-complicate the delivery process for BDUK's Broadband Voucher scheme in 2014/15, and Community Broadband Scotland's interventions in 2015/16 (see, for example, Scottish Rural Parliament report, *op cit*).

Useful examples and learning opportunities of where local full fibre networks have been deployed include the City of York (City Fibre in cooperation with Sky and TalkTalk: the latter two B-to-C providers guaranteeing minimum levels of take-up among their subscribers to underpin the capital cost of rolling out the fibre infrastructure) and, at a more micro-end, Perseverence Works in Shoreditch, East London (aggregated demand from a number of VSMEs and tech start-ups underwriting the cost of bringing Full Fibre to the delivery-point).

Feedback from groups who have attempted 'self-help' approaches suggests demand identification and aggregation is less of a problem than the practical problems of obtaining wayleaves and the commercial uncertainties created by BT appearing once the business plan is in place and promising to over-build with its own 'fibre' FTTC product.

The crucial limiting factor is, inevitably, the availability of affordable wholesale access to backhaul. Which, again, points to the need for greater competiton in the utility layer in the long-term, and price-controlled mandated wholesale access in the short-term.

We therefore suggest the UK urgently needs a national backhaul database. And that consideration of a retail Universal Service Obligation should be deferred until Ofcom and DCMS have access to sufficient data to model the effects of improved backhaul on cost of delivery.

Question 2 : What evidence is there to demonstrate the effectiveness and potential of the following approaches, specifically in the context of stimulating the rollout of local full fibre networks in urban and rural areas?

Demand side approaches

A. Public sector demand aggregation

The experience of FCS's SME and mid-cap members in engaging with central and local government confirms the suspicion – widespread among small companies -- that our biggest barrier is not the quality of our products of the willingness of SME companies to engage in bureaucratic tendering processes, but the cultural resistance of public sector customers.

Specifiers with large budgets, depleted internal manpower resources and an eye on their own career prospects, departmemntal power bases and pension pots have no incentive to buy innovative solutions or engage in inter-departmental data-sharing and best-practice.

If there is a role for Government, it should be to focus on these cultural disincentives and provide tangible encouragement backed by funding incentives for public bodies which find new ways to work together.

FCS is aware of instances where local authority purchasing professionals have been put under intense political pressure to continue with status-quo solutions – even where these demonstrably failed to deliver best value for the public purse -- because of lobbying by the incumbent provider.

For a good example of a local authority seizing the opportunity to differentiate itself as a fast, fibre-based tech hub (and thus attract inward investment which might otherwise have gone elsewhere in the region), see the City of Bristol's partnership with City Fibre.

It is significant this approach was built not only upon an innovative solution to the maintenance of council-owned duct infrastructure, but by marshalling voluntary co-operation between departments and agencies around a common vision.

B. Voucher schemes for private sector demand aggregation.

There are many useful learnings from the BDUK voucher scheme. And also many examples of unintended (but entirely predictable) consequences, bureaucratic obstacles and unnecessary links in what ought to have been a straightforward distribution chain. We can share these in detail if you wish.

Again, we would highlight *cultural*, rather than technical issues as the main barrier to progress and take-up. The BDUK programme graphically highlighted how few business people understand the life-changing difference good quality connectivity can make to their business. The reason: nobody is going to sell something to a customer who can't buy it. As active proponents and supporters of the 2014/15 BDUK voucher scheme, FCS believes the underlying principle is absolutely correct: put the subsidy directly into the hands of the company which will benefit from it. And leave it to that company to make an informed choice from a range of pre-qualified suppliers regarding how best to invest it.

Supply side approaches

C. Making public sector assets available

It is a source of perplexity to most business and consumer network users that greater use is not made of public sector assets. There remains no presumption in planning law, for example, to make it a condition of building a new road, sewer, water or gas main or railway that a matching length of (empty) ductwork, suitable for the future laying of comms fibres, be included in the civils at the same time. Beyond the use of public buildings to mount radio and microwave antennas (which attract a conventional rent-for-space approach), there is little evidence that the stewards of public sector assets are being encouraged – still less incentivised -- to think long-term and future-proof.

Treasury could usefully provide clarity of policy and high-level benchmarks on budgeting, accounting and performance measurement. It would then be possible to identify existing top-performers and encourage improvements against common metrics (much as has happened in other fields like social housing, for example).

D. Access to location data on infrastructure assets

FCS is very encouraged by the plan to engage Ordnance Survey in creating a national connectivity mapping. We are pleased to see Openreach making its own infrastructure maps more publicly available. Though experience suggests that the fine accuracy of many of these maps leaves much to be desired.

FCS supports the creation of a genuinely open market in re-usable infrastructure components (from ducts and poles to dark fibre runs and open access switches). There may be an extended role for OS or some other independent third party to maintain both the master maps and the necessary licencing and access controls to ensure all users have access to (and a vested interest in maintaining) a common database, without risking the compromise of sensitive or military-level data.

E. Directly funding fibre routes in uneconomic areas

FCS cautions against linear thinking. The whole existing network deployment, (and the last decade's various subsequent taxpayer-funded incentives to develop it), has been based on a model where an incumbent network rolls out an existing product to a customer whose choices are restricted to taking it or leaving it. This is not a sustainable, future-proof model. Especially for the deeply rural customer.

Any model which does not encourage the customer to participate in the purchasing decision -- preferably by offering several options / price points / service levels – runs the risk of perpetuating resentment among deeply rural customers and frustrating the development of new or more responsive delivery models and price-value discussions.

This should include a realistic uunderstanding that modern voice-over-IP services may not be the most appropriate solution for individuals who cannot also rely upon uninterrupted mains power.

Question 3: What is the most effective and efficient delivery model Government can use to stimulate future delivery of full fibre networks across the UK in both urban and rural areas, building on and integrating approaches that have been taken to date?

The most important step has to be a shift away from the 'command and control' network driven culture, with its analogue antecedents, 'premises passed' metrics and 'this is as good as it gets in your part of the world' predispositions. That is yesterday's model. But it is still the unspoken underpinning philosophical basis of this Call For Evidence.

Instead of 'premises passed', we must find ways to measure success in terms of 'customers satisfied' or 'businesses enabled'. This involves a fundamental shift in emphasis away from incentivising the network and towards empowering the consumer.

The focus should be on mandating open access standards and 'future ready' technology for inter-operability.

The industry is well equipped to develop and deliver these. FCS and NICC can point to successful industry-authored open standards and best practice, delivered by the industry, for the industry. But it needs an appropriate incentive to do so, faced with so many current standards and practices defaulting to what has always worked for BT at an infrastructure level.

Question 4: What other changes, locally and/or nationally, are needed to reduce the cost of full fibre rollout, such as opening access to publicly and privately owned facilities, or changes to wayleaves, streetworks and other areas? What evidence is there to demonstrate the effectiveness of such changes?

Establishing 'best practice' approaches to barriers to deployment

The devil is too often in the detail: wayleaves and access to existing passive infrastructure or fibre backhaul hand-over points represent significant points of delay and uncertainty in any project. Also, too frequently, costs which may be unquantifiable at the beginning of a contract.

There is a strong case for Government to back and encourage a more systematic and predictable approach to these issues. Anecdotal evidence from the City of London, where property ownership and stewardship chains can be remarkably complex, suggests the stumbling block over access pricing is less often the owner or the tenant, than the solicitors retained by both -- who have an obvious incentive to over-negotiate. The principles contained in the revised Electronic Communications Code represent a welcome move in the direction of a more open and consistent approach to planning and shared infrastructure. We believe Government has a vital enabling role to play in drawing the various stakeholder bodies and associations together to agree a Code of Practice for wayleaves and access.

SUBMISSION ENDS