



**DCMS**

*Future telecoms infrastructure review: Call for evidence*

*TalkTalk response to consultation*

**January 2018**

**NON-CONFIDENTIAL VERSION**

# 1 Introduction and Summary

- 1.1 TalkTalk welcomes the Government's determination to ensure the next generation of communications technologies are deployed at scale across the UK. We agree with Government that Britain needs a significant increase in the pace of full fibre roll-out and want to play an active role in delivering it – rapid and widespread FTTP roll-out is viable today and can be realised if barriers are removed.
- 1.2 In our view, the UK's full fibre future will be supported by the Government redoubling its commitment to the existing strategic direction, rather than seeking a radical overhaul of policy or the current market structure. Over recent years we have seen significant, and welcome, changes in the Government's focus and clear articulation of the following vision:
- there should be full fibre infrastructure competition with investment from a range of players – backed up by the Digital Infrastructure Investment Fund ('DIIF') as stimulus;
  - governmental support for Ofcom's legal separation of BT Group, and an openly stated intention to intervene in favour of further, full structural separation if this model does not deliver for consumers<sup>1</sup>; and,
  - the barrier busting unit tackling impediments to roll-out of FTTP.
- 1.3 Against this backdrop we have already seen announcements of significant infrastructure investments from companies including Virgin Media, CityFibre Holdings and Gigaclear.
- 1.4 Meanwhile, in York TalkTalk has been focussed on extending our FTTP pilot to a further 40,000 homes. As discussed with officials this is a test ground that we are using to assess both the full fibre business case and possible models for further investment in additional cities. We are not looking for a change in market structure to support this investment, but rather for efficient delivery (and possible extension) of existing Government programmes; and guarantees that our investment, and that of other alternative competitors, will not be undermined by predatory action by BT Group. Alongside this there are many smaller initiatives, often already being considered under the Government's barrier busting programme, which will improve incentives to invest in FTTP and the speed at which roll-out occurs once decisions have been taken to expand a network in a particular area.
- 1.5 Overall, therefore, the Government will be best able to fulfil its strategic vision for a full-fibre future by maintaining and following through on the current policy direction, holding Openreach to account, and delivering on the various barrier busting initiatives which will help to unlock competitive FTTP investment. A range of different business models are being developed and brought to market, as demonstrated by the FTTP investment announcements so far. Government must allow competition to operate and the market to determine which approaches work best for consumers, rather than pre-empting the outcome and attempting to pick winners.
- 1.6 There are a series of detailed policy measures which Government should undertake to support FTTP roll-out:

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<sup>1</sup> See: <https://www.gov.uk/government/speeches/building-a-full-fibre-britain>

- obliging network operators with SMP to publish a plan of where they will roll out FTTP networks, well ahead of doing so, to avoid inadvertent overbuild;
- preventing construction companies from charging more than a cost-reflective price for building FTTP networks to new properties;
- ensuring that the barrier busting team continues to make progress in areas such as wayleaves, which increase the costs of rolling out FTTP;
- ensuring that Openreach is obliged to provide dark fibre to any customer who demands it.


1.7 The remainder of this submission sets out TalkTalk's views on the detail of the policy measures which should be taken by Government. Section 2 sets out the framework within which TalkTalk (and, we believe, other potential and actual investors in FTTP) will consider whether and where to invest in FTTP, while section 3 considers whether there are alternative market models which may enhance the prospects for investment in light of this framework.

## 2 Revenue streams and investment

### 2.0 New entrant FTTP investors will need a suitable return on capital

2.1 When any firm— whether an incumbent or a new entrant— is considering investing in full fibre networks, it will require a business plan which demonstrates that investing in FTTP increases that firm's profits compared to not investing in FTTP.

2.2 This will require the potential FTTP investor's investment in FTTP to earn higher returns than the project's cost of capital. If this is not the case, it would be more profitable for the potential investor to return capital to its investors (or not raise additional capital to fund FTTP. It is this need to expect earnings above the project's cost of capital which is likely to drive TalkTalk's decisions on whether, and how much, to invest in new FTTP projects.

2.3 TalkTalk estimates that investments in FTTP will need to earn a return on capital employed ('ROCE') . As such, increased uncertainty about the returns to investing in FTTP is likely to decrease the amount of FTTP investment actually undertaken. Both visibility and predictability of returns are therefore important in incentivising FTTP investment.

2.4 One of the ways that a new entrant FTTP investor can ensure both higher returns, and returns which are less volatile, is for it to enter into wholesale agreements which mean that an existing customer base is quickly migrated onto the new network when that network opens. This provides demand certainty, mitigating downside risk that the network may remain substantially unused for an extended period after its commercial launch. The same mechanism means that some of the most viable investors in full fibre networks are likely to be ISPs which already have an existing customer base, as they can ensure that there is a significant customer base in an area almost immediately after the network is commissioned.

2.5 In the same way, FTTP investment will be increased if the new investor has the opportunity to obtain a higher peak market share. This peak market share could be attained either through wholesale agreements to shift ISPs' entire customer bases to the new network, or by winning individual customers in the market.

- 2.6 In light of this, it is clear that the continued vertical integration between Openreach and BT Consumer reduces the prospects for competitive FTTP investment. If Openreach and BT Consumer were structurally separate, then a new entrant would take into account the prospect that it might be able to attract BT Consumer away from the Openreach network for at least a proportion of BT Consumer's volumes. Given that Openreach continues to be owned by BT Group, BT Consumer's volumes are highly unlikely to ever leave the Openreach network due to BT Group's inherent interest in maintaining returns in both Openreach and BT Consumer.<sup>2</sup> This would in turn increase the proportion of the country where it is likely to be profitable to engage in third party FTTP investment, and therefore the amount of investment undertaken. If BT Group were to decide to divest Openreach– or if it were compelled to do so– then this would be expected to increase third party investment in FTTP networks. Separation would have other benefits, such as making risk-sharing with Openreach more likely and increasing incentives on Openreach to invest and improve its quality to retain BT Consumer's business.
- 2.7 If Ofcom or DCMS mandated BT to divest Openreach, this would increase third party FTTP investment and would also increase Openreach's incentives to invest in FTTP itself (see below).
- 2.8 Due to the importance of early scale, if Sky, TalkTalk, Vodafone, or other operators which do not currently own their own networks were to increase their broadband market shares, this would increase incentives to invest in FTTP as there would be greater potential to attract wholesale revenues.

**2.0.1 *Publication of an Openreach investment plan can increase certainty for third party FTTP investors***

- 2.9 One of the main perceived problems with the largely successful BDUK programme to roll out FTTC services across the country is that there have been examples where there has been uncertainty about where Openreach intended to roll out its subsidised FTTC products, and therefore overbuilds roll-out by third party operators such as Gigaclear. It is unclear what proportion of such overbuild is deliberate and strategic by Openreach (see annex 1 to this document, which sets out TalkTalk's concerns about deliberate overbuild by Openreach) and what proportion is inadvertent, due to BT and alternative operators not being able to coordinate their network roll-outs.<sup>3</sup>
- 2.10 Such uncertainty about when overbuild by Openreach will occur will reduce investment by new entrant FTTP networks in areas where the business case is otherwise marginally

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<sup>2</sup> When considering whether to shift BT Consumer's base to an alternative network, BT Group will consider not only the impact on the profits of BT Consumer, but also the impact on the profits of Openreach. As the costs of Openreach's network are largely fixed and sunk, then the loss of profits and loss of revenue will be essentially equal. The additional revenue to BT Consumer from switching to the new network would therefore have to be sufficiently high to cover both the entire payments of BT Consumer to Openreach, and the payments to the new network. Furthermore, even if this condition were satisfied, TalkTalk is sceptical that BT Consumer would move its demand, due to the strategic and reputational effects on BT Group of doing so.

<sup>3</sup> Gigaclear's evidence to the CMS select committee contained numerous examples of where there has been such overbuild. See <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/culture-media-and-sport-committee/establishing-worldclass-connectivity-throughout-the-uk/written/29445.html> at section (b).

positive, given that it is unlikely to be profitable for a new entrant to be a second or third FTTP network in an area (depending upon whether Virgin Media has an FTTP network in that location).<sup>4</sup> The prospect of overbuild (or build by Openreach and the new entrant operator starting almost simultaneously) will require the new entrant to build a risk premium into its financial calculations of the profits to reflect the risk that they are not the sole FTTP provider in an area, and returns are low or non-existent. This will tend to suppress FTTP roll-out.


- 2.11 It is also important to note that there will be greater consumer welfare gains from networks not overlapping with one another, at least initially. Capacity to roll out FTTP will be finite, and there will be much greater consumer welfare from customers in a wider range of areas having access to at least one FTTP network than fewer customers having access to an FTTP network at all, but more having the possibility of choosing between multiple networks.
- 2.12 In order to prevent this problem, and to maximise the scale of new entrant FTTP roll-out, Government should ensure that Openreach, as the SMP operator in fixed line connectivity in the UK, is obliged to publish each year the areas in which it proposes to roll out FTTP over the next three years— and to stick to such a plan. Such an approach would be aligned with BT Group’s new commitments for Openreach to consult extensively with its customers over major investment decisions. Publishing a roll out plan will increase alternative FTTP roll-out, and by reducing overlap in the early years maximise the number of houses with FTTP access.
- 2.13 It is important to note that this is not a proposal that there should be a franchised model or that there is any form of market sharing. Operators, including Openreach, will remain able to overbuild one another. This is solely designed to enable inadvertent FTTP overbuild to be prevented in a period when there will be constraints on all operators’ ability to expand their networks. All FTTP networks will remain subject to competitive constraints from Openreach’s ubiquitous FTTC network, as well as Virgin Media’s DOCSIS-based cable network.

## 2.0.2 *The work of the barrier busting taskforce will be central to improving the prospects of roll-out*

- 2.14 The creation of a dedicated barrier busting unit in DCMS has been an important step forward in addressing the barriers to efficient, lower cost and quicker FTTP roll-out. As we assess the viability of extending our FTTP plans to further cities, the potential for actions by the barrier busting team to help to tip the balance towards investment cannot be overstated. As it stands today, for example, the overall cost burden and complexity of securing wayleaves for different types of buildings (i.e. Council or privately owned, single property or part of an MDU or business park) is a considerable hurdle. We hope that the work of the taskforce will cut through these complexities. Doing so would both increase the total volume of FTTP roll-out, and reduce the delay between the decision to invest in a particular city and commercial marketing of FTTP services to consumers and businesses.

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<sup>4</sup> It is important to note that it is unlikely that overbuild of FTTP by Openreach would be directly profitable for Openreach, notwithstanding that Openreach would have a significant cost advantage over other entrants due to its ownership of ducts and poles. However, the strategic concerns for Openreach—by deterring entry in other areas, Openreach would prevent its profits in those other areas being undermined—are likely to outweigh the loss of profits in specific areas, and make overbuilding more profitable in the long run than accommodating entry.

2.15  Government actions driven through the taskforce can make a significant difference to the likelihood of achieving such cost reductions.

2.16 There are several areas where there are continued challenges. In all of these we believe there is potential for cross-industry and cross-Government engagement to develop creative and innovative solutions to increase and speed up FTTP roll-out:

- *Wayleaves*– the reform of the Electronic Communications Code delivered through the implementation of the Digital Economy Act 2017 brought about some crucial changes that will improve the position for operators seeking wayleaves. However, the process remains time-consuming and onerous on operators, particularly when wayleaves for a single build area (e.g. a business park) need to be sought from a wide range of parties. Reducing the time and cost of obtaining wayleaves will make a meaningful difference to FTTP roll-out. We have been sharing information with the barrier busting team about our experiences in relation to wayleaves as we continue our FTTP deployment in York. We consider there is an opportunity to work towards further improvements to the wayleaves process to bring about a more streamlined, efficient regime for all parties, building on the success of the City of London’s standardised approach.
- *New build properties* – under the current structure, builders of residential properties tend to demand large access fees from network owners in order to be able to serve new properties– access fees which do nothing to help consumers, and may in many cases restrict the choice of networks available to consumers. In the same way as MHCLG is proposing to take action against increasing leaseholds which are applied to residential properties, legislation which should be introduced which obliges builders not to unreasonably refuse access to networks while building is ongoing and to allow access at a cost-reflective price. This will prevent the situation where only one operator can access a new estate before roads are completed, and other operators then have to immediately dig up those new roads to lay their own networks.
- *Planning, streetworks and road traffic management*– in order to roll out FTTP across the UK, particularly if that roll-out is by new entrant operators such as Gigaclear, CityFibre and TalkTalk, there will be a need for large scale streetworks to lay fibre. While initial roll-out is likely to be in areas where councils are supportive of FTTP development, there will also be a need to access areas where councils are ambivalent (or worse) in order to meet DCMS’ and Ofcom’s aspirations for FTTP roll-out. DCMS should therefore, in conjunction with MHCLG, look to see whether there are any viable approaches to prevent councils inhibiting or slowing the development of FTTP networks, particularly where this is inadvertent. We consider that there may be merit in developing best practice guidelines, in partnership with the Local Government Association, to help support digital infrastructure roll-out. These guidelines could, for example, include requirements for: Local Authorities to identify a single point of contact for telecoms operators to help to coordinate deployment, as recommended in the BSG foreword to the Analysys Mason report;<sup>5</sup> and systems automation to support the processing and management of streetworks. Greater consistency of approach to addressing the roll-out challenges across different geographies will support quicker, more efficient FTTP deployment at scale.

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<sup>5</sup> See

[http://www.analysismason.com/contentassets/2448861af5674dcfa77d9fea054e3893/analysys\\_mason\\_lowering\\_barriers\\_to\\_telecoms\\_infrastructure\\_deployment\\_may17.pdf](http://www.analysismason.com/contentassets/2448861af5674dcfa77d9fea054e3893/analysys_mason_lowering_barriers_to_telecoms_infrastructure_deployment_may17.pdf)

2.17 In addition, more issues may arise as there is increasing experience of the practicalities of rolling out competing FTTP networks. The barrier busting taskforce should remain vigilant for issues which are not yet apparent, but which may become so. We also welcome the Government's commitment to incentivising Local Authorities to adopt pro-investment policies by making a coordinated Digital Strategy a requirement for accessing funding as part of the Local Full Fibre Programme.

## **2.1 Operators with existing networks have weaker incentives to invest**

2.18 Operators with existing non-FTTP networks (such as Openreach's copper/FTTC network and Virgin Media's DOCSIS network) also need to earn sufficient returns to cover the project-specific cost of capital of undertaking new FTTP developments. However, unlike alternative FTTP investors their FTTP investment decisions will also need to take into account the impact of FTTP build on the profits that they earn on their existing networks. This significantly alters their incentives to invest in FTTP compared to operators who do not have networks in a particular area.

2.19 The extent of the cannibalisation effect depends upon the impact that the development of a new FTTP network will have on the profits of the incumbent network. The cost of any lost profits on the existing network will be taken into account by the incumbent when deciding whether to develop the new network. The lost profits are likely to be greater if the incumbent network owner is earning profits in excess of its cost of capital on its existing network (as, for example, Openreach is at present on its regulated products including FTTC – Openreach's profits are about £1 billion a year above those required to cover its WACC). This will make the incumbent less willing to invest in a new network, because it will be concerned at the loss of these returns. The greater the returns, the greater the reduction in investment incentives, although there still may be reductions in incentives to invest in FTTP even where there are no legacy supernormal profits, due to returns on the legacy network being reduced below the incumbent's cost of capital.

2.20 Given these factors, price regulating Openreach's FTTC network, as is currently proposed by Ofcom, is likely to increase Openreach's incentives to invest in FTTP infrastructure. This regulation will lessen and then remove Openreach's supernormal profits from its FTTC infrastructure, reducing the cannibalisation effect and therefore increasing the incremental profit that Openreach will make from investing in new FTTP networks. The faster Openreach's FTTC pricing is brought down to competitive levels, the more pronounced this effect will be. In addition removing excess profits above WACC on other products which are substitutes for FTTP will also increase Openreach's incentive to invest in FTTP.

## **3 What consequences could different market models have on the investment environment?**

3.1 As set out in response to question 2 above, the key concerns of potential investors in FTTP networks– whether those investors are Openreach or alternative providers– are that the FTTP project in each area is expected to earn returns in excess of its cost of capital. In turn, this cost of capital will be lower when returns are less volatile.

3.2 More generally, however, there are a range of features which will help to create a supportive environment for FTTP investment:

- *a level playing field*– if one firm (whether Openreach or another firm) has a significant non-replicable advantage over others in the sector, investment will be impeded, particularly if that advantage stems from the ability to cross-subsidise or some form of regulatory advantage.
- *certainty of legal and political environment*– as pointed out in section 2 above, uncertainty and volatility in expected returns tends to reduce investment. The legal and political environment can be a major source of uncertainty, and thus DCMS should look to promote a stable environment.
- *a competitive retail market*– as outlined in section 2, above, one of the features which is likely to reduce FTTP investment is where it is difficult to attract customers to a new network and so achieve scale. A competitive retail market will make it easier to attract customers, and so will tend to increase FTTP investment.
- *portable customer bases*– another way in which FTTP providers can grow their scale is to wholesale to other providers, again as set out in section 2, above. A market model which maximises the ability and willingness of retailers to switch between different networks will tend to increase FTTP investment.

3.3 As a result of these factors, DCMS should only change the market model if there are compelling pro-competitive reasons for doing so. This section sets out a range of potential amendments to the market model and considers their impact on the amount of FTTP investment that is likely to be undertaken.

### 3.1 DCMS should rule out introducing a RAB-based model

3.4 At consultation question 4, DCMS sets out that one option for an alternative market structure would be to introduce a regulatory asset base (RAB) model for regulation of the telecoms market. TalkTalk understands that a RAB model would have the following features, in line with the structure in some other sectors:

- Ofcom would review a forward capex plan for Openreach at each triennial review, and then set out which projects it agreed to being included within the RAB;
- Openreach would then invest in the projects which Ofcom approved of;
- Projects included in the RAB would be guaranteed to be remunerated through regulated charges, as Ofcom would have a financeability requirement placed upon it.

3.5 While this structure works in other sectors such as water, it would not be appropriate to adopt in the telecoms sector, for a range of reasons:

- markets such as water are inherently much slower moving technologically than the telecoms sector. In telecoms it would not be appropriate to submit capex plans stretching out as far as five years ahead, as there would be a significant risk that there would be under- or over-investment in particular technologies.
- Ofcom would be required to pick winners from among competing technologies, some of which may end up not working (long reach VDSL is a recent example of a promising technology which now appears far from certain to be effective at scale). Ofcom is not well placed to decide which exact technology is best for future telecoms market developments.
- it would be difficult to guarantee the returns to Openreach which would be required under a financeability regime. If the costs of FTTP were recovered solely from FTTP customers, then a price which is too high would risk there being no demand, as



customers remained with legacy technologies. It would be inappropriate to recover FTTP costs from ADSL or FTTC customers, as they would be cross-subsidising others' usage, which would reduce consumer welfare by distorting pricing.

- while other sectors with RAB based models tend to be strong natural monopolies with no scope for competitive investment (electricity distribution, water, gas distribution) the telecoms market already has considerable amounts of competing infrastructure such as Virgin Media. An attempt to secure financeability by increasing prices would run the risk that customers switch to these alternative networks.
- one of Ofcom's primary aims is to encourage competing infrastructures. If cross-subsidisation of Openreach's FTTP network from its copper and FTTC networks were allowed, this cross-subsidisation would destroy any prospect of competing FTTP investment, as alternative network investors would know that they faced a rival with an advantage which could not be replicated.

3.6 Moving to a RAB-based model would therefore entrench Openreach's significant market power, reduce consumer welfare, make it less likely that there was competing infrastructure development, and risk the wrong technological options being chosen. It would furthermore represent a significant shake-up of the market which will lower incentives to invest without reducing consumer's barriers to switching between providers. There are few more harmful approaches which DCMS could choose to adopt.

### 3.2 Further passive infrastructure access remedies on Openreach would support FTTP development

3.7 One of the most important initiatives so far in supporting increased development of alternative networks has been Ofcom's duct and pole access (DPA) work, which aims to open passive elements of Openreach's monopoly infrastructure to alternative operators so that they can install their own fibre networks.

3.8 TalkTalk has been actively engaging with Ofcom's policy process and is preparing to trial DPA as part of our phase 3 FTTP pilot in York. Ofcom's policy decisions on improvements to the PIA remedy (which supports DPA), are due to be published in the next few weeks as part of the Wholesale Local Access Review statement. We look forward to reviewing the improvements including price reductions. However, we anticipate that considerable further engagement with Openreach, Ofcom and the OTA will be required through the Reference Offer process to develop a product that is fit-for-purpose for widespread use at scale. The outcome of this process combined with the overall pricing will determine whether or not DPA reform is successful.

3.9 In addition to Ofcom's ongoing DPA process, there are two further areas which are necessary in order to support the development of FTTP networks:

- *an unrestricted dark fibre remedy*– following BT's appeal of Ofcom's 2016 BCMR decision dark fibre potential is highly restricted – it cannot be used for bandwidths above 1Gbps and its price is over twice TalkTalk's estimate of its underlying cost. An unrestricted Openreach dark fibre product has the potential to stimulate alternative FTTP build by reducing costs of backhaul. While 1Gbps backhaul circuits may still just about be usable in a world where the average residential connection speed is

36Mbps,<sup>6</sup> there is no prospect that they will be even vaguely suitable to serve FTTP networks where 1Gbps is the standard *residential* broadband speed, and even 10Gbps circuits will likely be able to cope only at low levels of take-up. As a result, it is likely that backhaul for FTTP networks will need to be based on WDM circuits with the ability to handle multiple 10Gbps frequencies; this will likely need to be based around dark fibre. However, in a recent decision the CAT overturned Ofcom's (correct) previous decision to introduce a dark fibre remedy. DCMS should therefore intervene, if necessary by primary legislation, to ensure that operators who are found to have SMP in the supply of very high bandwidth lines are obligated to supply dark fibre as well as passive products on a regulated basis.

- *an access remedy around BT's POPs* ✂. This is notwithstanding that Openreach has an increasing amount of spare capacity in its exchanges, due to miniaturisation of telecoms network equipment. Such spare capacity is only likely to be enhanced by the construction of alternative FTTP networks, which will pull demand away from the Openreach network. The economics of constructing alternative FTTP networks would become considerably more advantageous if there was no need to incur the cost of what is, in effect, replicating an underused infrastructure asset. DCMS should therefore explore options for a remedy allowing for passive access to BT's exchanges at cost, even when there is no other use of BT's infrastructure by the new entrant, which would both better use an underutilised asset, and enhance productive efficiency by preventing the needless duplication of assets.

3.10 A combination of these two remedies would meaningfully improve the prospects for FTTP roll-out, without imposing any undue burden on BT/ Openreach.

### 3.3 Over what timescale could market models be changed, and what policy conditions would be necessary to enable this?

3.11 It is highly unlikely that Government could broker industry consensus for significant changes to the current market structure. Any change is likely to jeopardise vested commercial interests and would be opposed by those who stand to lose (or those who perceive that they stand to lose). That should not preclude Government from considering the merits of proposed changes – indeed there may be strong public policy arguments for challenging vested commercial interests – but Government should be realistic that any major reform would likely have to be imposed.

3.12 Changes which are objected to are likely to require a formal regulatory process, or even primary legislation, neither of which could be delivered quickly. Furthermore, any regulatory process is likely to be vulnerable to being delayed in the courts, while primary legislation could be held up in one or other chamber, particularly if the legislation proves controversial. Any such process would fail to give (potential) new entrants the certainty which is required to reduce the perceived risk of rolling out an FTTP network; and such uncertainty would be likely to persist for several years while either the regulatory or legislative process reached its conclusion.

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<sup>6</sup> Ofcom Communications Market Report 2017, at page 146.

### 3.4 Are the current arrangements for BT legal separation working effectively?

- 3.13 Whilst TalkTalk advocated full structural separation between Openreach and the rest of BT Group, we respect Ofcom's decision and are committed to working collaboratively with Openreach to ensure we maximise the benefits of legal separation for all Openreach's customers, whether direct or indirect.
- 3.14 We continue to believe that legal separation has intrinsic limitations and that there are formidable practical challenges to create a finely tuned regulatory framework that can overcome those limitations. It is too soon since the specific agreement between Openreach and Ofcom to say definitively whether legal separation is working or is likely to work; many of the changes are still ongoing, including primary legislation regarding the Crown Guarantee. However, as noted at §2.6 above, there are some problems in the market, such as the distortion in the network choices of BT Consumer, which cannot be solved by the current amendments to the manner in which Openreach operates, and which will remain difficulties even if all of BT's commitments regarding Openreach operate entirely as intended.
- 3.15 The arrangements can only be defined as a success if they lead to material improvements in Openreach's performance across a range of areas, including:
- *Service quality* – there has been some progress in this area, but the progress there has been is too slow. A cultural change is required so that Openreach proactively identifies and resolves faults, rather than reacts retrospectively once customers have complained.
  - *Investment* – Openreach's rhetoric has been positive, but there has been little concrete detail on FTTP plans, or pricing and risk-sharing arrangements for wholesale FTTP.
  - *Governance* – TalkTalk welcomes the appointment of an independent Chair and Chief Exec and more regular, transparent dialogue at a senior level. However, concerns remain about how independent Openreach can practically be when BT Group approves capex and the BT Group CFO is present on both boards (the CFO is the BT Group nominee on the Openreach Board). As yet there has been no clarification over how the confidentiality of TalkTalk data could be guaranteed in order to make co-investment schemes viable. More generally, Openreach must be far more transparent of how it operates and makes decisions vis-à-vis BT Group.
- 3.16 It would be very useful and reduce uncertainty if Ofcom provided more clarity on its expectations of how Openreach should behave.

#### 3.4.1 Risk sharing models between infrastructure providers and retail providers

- 3.17 Risk-sharing models have the potential to give greater certainty to potential investors in FTTP infrastructure, reducing the downside risk that there will be weak demand for their products, or defraying some of the upfront investment costs. A notable recent example of such a risk-sharing agreement is that between CityFibre Holdings and Vodafone, where Vodafone has committed to take certain volumes on CFH's newly built FTTP network, in exchange for an exclusivity period.
- 3.18 TalkTalk is keen to engage in risk-sharing discussions, both as a retailer (sharing risk with FTTP investors) and as a builder of FTTP networks (sharing risk with other retailers).

However, the current vertical integration of Openreach and BT Group creates a significant barrier to TalkTalk entering any risk-sharing agreement with BT Group:

- there is no realistic prospect that BT Consumer will migrate its customer base (the largest in the UK) off the Openreach network, as set out at §2.6 above. Therefore there is no prospect of BT Consumer engaging in a risk sharing agreement with a non-Openreach FTTP investor. Structural separation of BT Group would be required to enable such risk-sharing.
- The current structural integration between BT Group and Openreach also makes it considerably harder to envision how there might be risk sharing between Openreach and TalkTalk to support Openreach FTTP investments. TalkTalk is concerned that it would inevitably get inferior terms to BT Consumer, and also has deep concerns about the prospect of information leakage from Openreach to BT Group through shared board members and the requirement to obtain Group board approval for major investments and risk-sharing deals. If Openreach were structurally separate from BT Group we would have no such concerns, and would be enthusiastic about supporting Openreach FTTP developments.

3.19 If Openreach were structurally separated both these substantial barriers to risk-sharing would be removed.

## **4 The Government wants to achieve its digital infrastructure goals at the least additional cost. How should new digital infrastructure be paid for?**

### **4.0 Are consumers (residential and business) willing and able to pay for new digital infrastructure, given its expected benefits?**

4.1 TalkTalk considers that a new FTTP network would be able to achieve a price premium over existing FTTC, DOCSIS and ADSL products. This price premium will reflect to a certain extent the higher speeds that the FTTP product offers, along with, more importantly, the higher quality, predictability and reliability offered by FTTP compared to ADSL.

4.2 However, the premium purely for speed is likely to be low in the near future. At present most customers' demand can be met on the basis of Openreach's 40/10 FTTC product; it is not until the mid-2020s that a significant proportion of consumers will require speeds in excess of Openreach's 80/20 FTTC product.<sup>7</sup> However, an FTTP network is future proofed, in that it can be upgraded to whatever speed is required to meet customers' demand, even well into the future.

4.3 In addition to higher prices, an operator of an FTTP network will experience significant reductions in opex. In particular, the cost of fault repair will be much reduced, due to lower fault levels; and costs of customer complaints and handling will be reduced by the higher line quality. Improved performance should also lower customer churn, and therefore reduce the per month subscriber acquisition cost which has to be amortised across the customer lifetime; the benefits of FTTP are at least as much about quality of service as about speed.

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<sup>7</sup> It is important to note that many customers, due to the length of line between their home and the cabinet serving it, will be unable to receive 80 Mbps from Openreach's product with that notional top speed.

These opex reductions will increase the per customer margins from operating on an FTTP network.

4.4 Indeed, TalkTalk believes that it is important that FTTP pricing is not meaningfully higher than the current level of FTTC pricing. The levels of connectivity provided by an FTTP network cannot solely be reserved to wealthy consumers; rather, they need to be available to any consumer who will benefit from them. A reasonable pricing proposition will be important in order to secure the high rates of penetration which are a core element of driving returns; it is likely that most viable business plans will rely on an existing retail customer base being pushed over to the new network, which will be impractical if there is a significant cost uplift. It is therefore vital for the industry to find a way to make FTTP profitable at current price levels, rather than relying on ever-increasing charges to consumers to fund FTTP development.

#### 4.1 **What is the potential role of government in stimulating demand or otherwise de-risking new infrastructure investment?**

4.5 As set out in the introduction to this submission, TalkTalk considers that the most appropriate role for Government is to create a stable environment for investment, and to deal with a number of detailed issues, which collectively significantly retard the development of FTTP networks.

4.6 The detailed policies which TalkTalk considers should be adopted by Government and which will stimulate demand for, and de-risk supplying, FTTP networks are:

- maintaining the DIIF, and signalling any changes in that fund (in terms of its value, conditions on disbursements, and time period) well in advance;
- extending the full fibre business rates relief beyond the current five year period, and ideally to make it permanent;
- supporting Ofcom in delivering a workable, affordable system for accessing BT's ducts, poles, and points of presence (see section 3.2 above); and,
- ensuring that an unrestricted dark fibre product is offered by BT at a cost-reflective price, if necessary through primary legislation (see §3.9 above).

4.7 Government will need to champion the migration to FTTP through consistent communication about its capabilities and, in conjunction with Ofcom and industry, provide information for consumers, particularly the vulnerable, about how to switch. A transition to the delivery of voice services over IP will be taking place alongside the migration to full fibre, with implications for how consumers make calls and a range of devices (e.g. alarm systems) operate. Government should support Ofcom's work on All-IP voice, and call for full consideration of the intersections between full fibre and IP voice migrations in the development of its approach to ensure there is clear, co-ordinated communication with consumers and proportionate consumer protections are maintained.

4.8 Beyond these policies the best approach for Government is to not take any further measures which attempt to stimulate FTTP roll-out, but to give the market stability and time to roll out networks.