



21 October 2016

Steve Unger  
Jonathan Oxley

Riverside House  
2a Southwark Bridge Road  
London SE1 9HA

By email only

Dear Steve and Jonathan,

You will no doubt have seen BT's recently commissioned report from Analysys Mason<sup>1</sup>. The report estimates the economic viability of a third fibre-to-the- premises ("FTTP") operator and concludes that, taking account of BT's announced G.Fast roll out, *"it is highly unlikely that an operator will be able to reach 40% coverage on a commercially viable basis, and that the achievable coverage is highly sensitive to market share."* Its base-case is that the limit of commercially viable FTTP in the UK is a mere 4%.

Thus, while BT's announcement of G.Fast investment to 10m households may appear to deliver a reasonably quick increase in headline broadband speeds available to some consumers it is clear that it:

- will not bring ultrafast broadband to anyone who does not already have it today;<sup>2</sup>
- will not improve quality of service unlike our experience of FTTP in other countries<sup>3</sup>;
- will not provide any ability for communications providers to innovate unlike Ofcom's proposals on 'dark fibre' for higher bandwidth business services; and

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<sup>1</sup> "Comparative analysis of outcomes in the UK broadband market: coverage, connections and competition"

<sup>2</sup> We recently commissioned Point Topic to assess where they thought BT would build its 12m premises using G.Fast and FTTP. Their analysis indicates that BT will overbuild Virgin Media footprint, with only 15% of the 12m premises provided with ultrafast broadband for the first time – in other words 85% of the investment and build duplicates Virgin Media's footprint. In fact, at Figure 1.2, Analysys Mason's report makes clear that 100% of BT's G.Fast build will be duplicative.

<sup>3</sup> Vodafone response to Ofcom consultation on Strengthening Openreach independence, page 27



- has a significant detrimental impact on the likelihood of FTTP roll-out thereby undermining Ofcom's objective for effective and sustainable competition and a 'step change' in UK FTTP deployment.

Moreover, BT's proposed G.Fast rollout will be a breach of its Undertakings. In line with Ofcom's legal obligations and established practice, and given the impact of a G.Fast roll out on future FTTP investment in the UK we request Ofcom to:

- investigate the potential breach of paragraph 5.13 of BT's current Undertakings; and
- undertake a full policy consultation prior to granting any new Variation to the Undertakings to permit Openreach to deploy G.Fast.

### **Give up on infrastructure competition?**

We do not accept Analysys Mason's modelling assumptions; however on the basis that the third operator uses Duct and Pole Access ("DPA") but assuming that Ofcom takes no other action to support new market entry, we agree with their conclusion that ensuring an economically viable and competitive ultrafast fixed market in the UK is a real challenge.

FTI Consulting's work for Vodafone found that decent, fit for purpose DPA was required to support new investment by a third party, but that DPA on its own was not enough to make an investment case comparable with that of an incumbent. In our response to Ofcom's consultation: "Strengthening Openreach's strategic and operational independence" ("Consultation Response") we described these fundamental business case risks as:

1. Deployment risk: Due to operational constraints or difficulties accessing passive infrastructure, deployment takes longer or is more costly than envisaged;
2. Market share risk: Requiring an operator to take on build costs out of proportion with their likely credible retail and wholesale market shares; and
3. Strategic overbuild risk: An investment will be deliberately undermined (especially from a lower cost G.Fast incumbent roll out) in order to 'warn off' other investors or investment in other geographies.



The Analysys Mason Report effectively confirms these risks.<sup>4</sup> It makes clear that a G.Fast build by BT (which will only duplicate the existing Virgin footprint) will, in Analysys Mason's view, sterilise the 40% of the country that might otherwise support a viable third network.

However, we draw a very different conclusion from Analysys Mason.

As we noted in our Consultation Response, a developed economy such as the UK should be aiming for more than a duopoly. We continue to support Ofcom's ambition for 3 or more competing networks in 40% of the country and 2 networks thereafter. These challenges simply mean that Ofcom needs to do more to support competition, including the introduction of specific regulatory rules to improve DPA, support co-investment and prevent strategic overbuild. We put forward concrete proposals on these issues (which have been implemented or are being proposed by other regulators throughout Europe) in our Consultation Response.

### **Openreach cannot deploy G.Fast without a further variation of its Undertakings**

In 2009 Openreach requested and received a Variation to its Undertakings which enabled it to control and operate electronic equipment necessary to provide super-fast broadband using Fibre-to-the-Cabinet ("FTTC") and allowed Openreach to operate as a vertically integrated operator across the SLU boundary. Ofcom confirmed this decision in 2011<sup>5</sup>. Without this Variation, Paragraph 5.13 of the Undertakings strictly precludes Openreach from operating electronics in order to ensure that it is focused on providing passive network inputs such as LLU. This Variation does not apply to G.Fast.

Paragraph 5.52 of the Undertakings permits Openreach to control and operate the assets contained within the Transmission Layer of BT's Access Network and BT's Backhaul Network only "where required to build, implement and operate a BT Active FTTC Product." Legally, such an exception to the general rule that Openreach shall not control or operate such assets<sup>6</sup> must be read narrowly. BT's Undertakings provide:

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<sup>4</sup> As regards deployment risk, Analysys Mason describes how "Openreach and Ofcom are currently working together to refine the UK's DPA offer and remove some of the [in its words] perceived procedural barriers to its use" and says investors will perceive greater risks in DPA deployment than other forms of deployment. On market share risk it acknowledges that market share is the key sensitivity of any FTTP business model and therefore "achievable coverage is highly sensitive to market share.". The entire report is an example of signalling strategic overbuild risk.

<sup>5</sup> <https://www.ofcom.org.uk/consultations-and-statements/category-2/fttc>

<sup>6</sup> See 5.13 of the Undertakings



*"BT Active FTTC Product means an Ethernet based Bitstream Network Access product offered by [Openreach] as of the date it is available for order and provided over the entirety of FTTC" (emphasis added)*

*"FTTC means a network structure for access at End-Users' premises at fixed locations in which optical fibres connect a node in an Exchange to a Local Access Node contained in a street cabinet, and copper wires connect the End-Users' premises to the Local Access Node contained in the BT street cabinet" (emphasis added)*

In light of the above, it is clear that G.Fast is not a "BT FTTC Active Product."

- BT clearly has no intention to deploy G.Fast "over the entirety" of its FTTC footprint because
  - it will not enable all its VDSL cabinets/FTTC with G.Fast<sup>7</sup>;
  - G.Fast is expected to be provided at a maximum of 96 ports / lines (and possibly only half of that) per distribution point compared with typically 200+ lines served via a VDSL-enabled cabinet;<sup>8</sup> and
  - technical limitations mean G.Fast will not be available to all customers served from a particular cabinet due to line length constraints;<sup>9</sup>
- Openreach itself classes superfast (VDSL) and ultrafast (G.Fast) broadband as wholly different service offerings; and<sup>10</sup>
- G.Fast is well-understood as a 'Fibre-to-the-Distribution Point' ("FTTdP") technology, as BT described in its announcement: "*BT is likely to deploy G.fast from various points in the network, with the pilots allowing it to assess various roll out options.*"<sup>11</sup> The mere fact that Openreach may ultimately choose distribution

<sup>7</sup> See Figure 1.2 of Analysys Mason which clearly shows G.Fast by 2020 extending to approximately 35% of the country compared with 90% for VDSL. As noted above BT has announced G.Fast plans for 10m HH compared with its current VDSL footprint of 24m HH.

<sup>8</sup><http://www.ispreview.co.uk/index.php/2016/06/bt-openreach-reveals-g-fast-broadband-cabinet-extension-pod.html>

<sup>9</sup> G.Fast is, therefore, fundamentally different from the introduction of, for instance, a new 50/20 product which is simply a new product variant using the same equipment and made available "over the entirety of FTTC".

<sup>10</sup> <http://www.homeandwork.openreach.co.uk/OurNetwork/ultrafast.aspx> "Ultrafast is the collective name for fibre technologies that deliver speeds of hundreds of Mbps... G.fast is a cutting edge technology that allows us to deliver Ultrafast speeds over existing copper lines..."

<https://www.openreach.co.uk/orpg/home/products/super-fastfibreaccess/superfastfibre.do> "

"Superfast Fibre Access has been designed to be an attractive proposition for the widest possible customer base... capable of delivering download speeds of up to 80 Mbps, upload speeds of up to 20 Mbps."

<sup>11</sup> <https://www.btplc.com/Sharesandperformance/downloads/PDFdownloads/DC15-035BTCEOsetoutultrafastbroadbandvision.pdf>



points ("dPs") at the same location as existing cabinets does nothing to alter this conclusion.

### **Ofcom did not grant a blanket Variation to cover G.Fast**

Prior to agreeing to the 2009 Variation, Ofcom consulted upon the regulatory environment necessary to promote private sector investment and competition in the delivery of super-fast broadband.<sup>12</sup> Figure 1 to that Policy Paper lists *"technology options to deliver super-fast broadband"* which includes fibre to the cabinet where *"fibre is installed into the access network, but only to street cabinets that typically serve a few hundred customers."* This limitation of the fibre installation to street cabinets and the 'few hundred customers' is a clear reference to a standard VDSL deployment not the fewer than 100 served by G.Fast from the dP. In fact, G.Fast is not referenced in the document at all and so clearly could not have been in contemplation at the time. Thus, it is not within the scope of the Variation.

This point is underlined by Ofcom's comment in that Policy Paper: *"We have indicated above our intention to consult on a proposal to vary BT's Undertakings which is designed to provide BT with the regulatory certainty it requires in order to proceed with its proposed investment in fibre to the cabinet."*<sup>13</sup> This can only refer to BT's proposed investments at that time which did not include G.Fast.

And Ofcom's view still had not changed in 2013, when Ofcom<sup>14</sup> clearly took a view that both the FTTC and the FTTP Variations were put in place to specifically support VDSL and GPON deployments and were not an open-ended carve out of Para 5.13 of the Undertakings.

The rationale for the original Variation to allow Openreach to operate electronic assets and use SLU on a non-Eol basis was that BT could only make that FTTC investment only if the cost and process inefficiencies that would otherwise prevail were overcome.<sup>15</sup>

This is obvious from the Variation Consultation and the 'sunset clause' included in the Undertakings which meant that the Variation would fall away if BT did not make the particular FTTC investment proposed at that time.

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<sup>12</sup> Ofcom Statement: "Delivering Super-fast broadband in the UK- promoting investment and competition" 3 March 2009. (the "Policy Paper")

<sup>13</sup> Paragraph 10.6 (emphasis added)

<sup>14</sup> See Andrea Coscelli: The UK experience of functional separation, equivalence and NGA, 3 October 2013, slide 9. *"The 2009 FTTC variation and the 2010 FTTP variation: Openreach allowed to deploy and operate active NGA equipment- VDSL and GPON"*

<sup>15</sup> Proposed Variation to BT's Undertakings under the Enterprise Act 2002 related to Fibre-to-the Cabinet: para 3.30



*The proposed variation is designed to fall away in the event that that BT does not go ahead with its proposed investment to a material extent in a reasonable time. Specifically, the variation will fall away should the number of customer premises capable of being served with super-fast broadband using FTTC does not exceed 500,000 by 31 December 2010, unless otherwise agreed by BT and Ofcom.<sup>16</sup>*

Clearly this was a very specific Variation decision relating to a very specific investment case. It was not a generic policy 'blank cheque' permitting future technologies to be deployed without respecting the SLU barrier; otherwise it would have replaced para 5.13 of the Undertakings in its entirety.

Ofcom clearly reserved for itself the ability to make further amendments to regulation should market and/or technological circumstances change. It stated:

*"Already, some commentators are calling for bandwidths in excess of those supported by some of the technologies that look likely to be deployed in the first phase. Communications providers and vendors are already planning such upgrades. In the longer term, if and when the benefits of super-fast broadband are proven, there will be an increasing desire to deliver more widespread availability of new, faster and better technologies. These could raise new challenges for regulation."<sup>17</sup>*

In its recent SRDC documents, Ofcom has pointed to exactly such changes which make it necessary to consult upon any new variation to its existing Undertakings which would permit Openreach to deploy G.Fast. Ofcom has stated:

*"In 2009-10 BT announced its intention to deploy fibre-to-the cabinet (FTTC), offering better broadband services than could be delivered over LLU. After considering the options to promote competition based upon this new technology, we complemented the LLU strategy with a product called virtual unbundled local access (VULA) which offered wholesale access to BT's network and electronics. This product offered some, but not all of the same innovation and differentiation benefits presented by LLU... Whilst these approaches have delivered continued retail competition, a strategy based on LLU and VULA has limitations. It provides limited incentives for Openreach to upgrade the underlying fixed network, and limited opportunities and incentives for others*

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<sup>16</sup> Proposed variation to BT's Undertakings under the Enterprise Act 2002 related to Fibre-to-the-Cabinet, 3 March 2009 at 3.40. See also BT's Undertakings 5.61

<sup>17</sup> Policy Paper at paragraph 2.16 (emphasis added)



*to invest in their own networks. Both products also leave decisions on many of the service characteristics and quality of service provided with BT...*

*The best driver for investment and innovation is network based competition; and this is at the heart of our future strategy. We believe competition between different networks (including those built from scratch or built using duct and poles owned by others) is the best way to drive investment in high quality, innovative services for consumers.<sup>18</sup>*

Clearly, the balance between service-based and infrastructure-based competition has changed significantly since the Variation was granted in 2009 and confirmed in 2011.

Given the significant impact of a wide-scale G.Fast deployment on future investment in FTTP in the UK market, as acknowledged by both BT's own consultants and the Secretary of State,<sup>19</sup> Ofcom should not regard such deployment as a 'done deal' despite the announcements that BT has made. Instead, it must discharge its legal duties and follow its usual practice by consulting properly (as it did at the time of the original Variation) on any further proposed changes to BT's Undertakings.

We therefore request that Ofcom:

- investigates Openreach's potential breach of the para 5.13 of the current Undertakings;
- undertakes a full policy consultation prior to granting any further Variation to the Undertakings necessary for Openreach to roll out G.Fast; and
- incorporates this letter into Vodafone's response to Ofcom's Proposal for Comment<sup>20</sup> and it be duly taken into account in that process.

Yours sincerely

Matthew Braovac  
Head of Competition and Regulatory Affairs  
matthew.braovac@vodafone.com  
cc: Clive Carter, Ofcom  
Brian Potterill, Ofcom

<sup>18</sup> Making communications work for everyone 25 February 2016 at 4.8, 4.10 and 4.12

<sup>19</sup> Speech to Broadband World Forum 19 October 2016 where G.Fast is described as an 'interim technology'

<sup>20</sup> Strengthening Openreach's strategic and operational independence: Proposal for comment 26 July 2016.