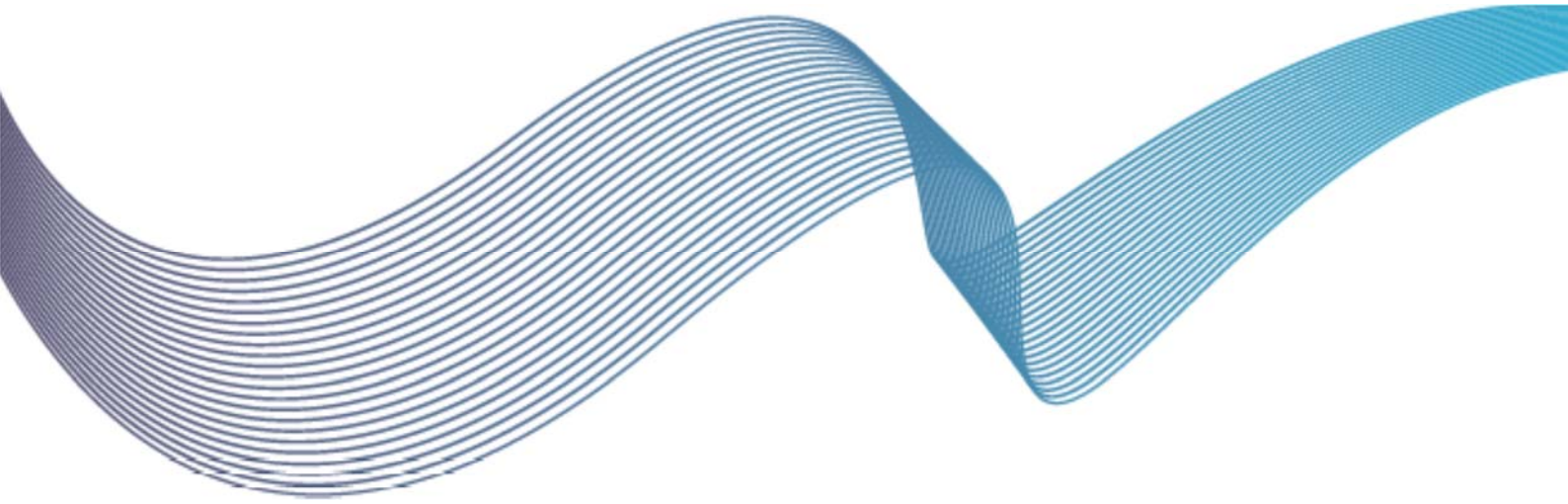
Response to Ofcom Dark Fibre Consultation: adding dark fibre remedies for business connectivity markets

Version 1.0
29 December 2017



Registered in England & Wales at Hyperoptic Ltd, Hythe House, 200 Shepherd's Bush Road, London, W6 7NL
Telephone: 0333 332 1111 www.hyperoptic.com
Registered number 07222543 VAT registered number 164 6525 96

Table of Contents

Hyperoptic Introduction

Hyperoptic is a Code Power operator founded in 2011 by Dana Tobak and Boris Ivanovic. Hyperoptic is the largest provider of 1 Gb residential broadband in the UK and currently use a Fibre to the Building infrastructure operating across 28 cities with ambition to service significantly more. We have installed or are in the process of installing to over 400k residential homes and over 10k business units.

Hyperoptic was founded to bring the UK's broadband infrastructure to the next level creating a new full fibre infrastructure, offering 1 Gb services and raising the level of expectations on the role of connectivity in British households and businesses. Customers get the wired speeds they expect and we have over 95 percent customer satisfaction rating consistently on our quarterly surveys.

To date, we have been expanding our network 100 percent year on year, and having recently secured 100m in debt funding. Our plans are to reach 2m homes passed by 2022 and 5m homes passed by 2025.

Currently, 50 percent of our footprint would, without Hyperoptic, be fibre-free with its residents only able to use ADSL often below 10Mbps – we are a key deliverer to whitespace areas and often target these areas having been neglected by other operators and network builders.

Network Infrastructure

Hyperoptic utilise EAD and EAD/LA circuits to connect buildings and businesses to our core network, utilising where appropriate BT Exchanges as PoPs to allow us to take advantage of the EAD/LA product set. We install our own last mile infrastructure from the basement throughout the buildings using a point to point topology which allows us to truly differentiate our product from competitors who deploy shared infrastructure in the guise of VDSL, DOCSIS or in rare cases GPON.

Despite the current coverage of both Openreach's FTTC network and Virgin's DOCSIS network, the majority of our homes are not able to otherwise receive superfast broadband (>24 Mb) and are generally receiving in the 5-10 Mb range. As Hyperoptic targets Multi Dwelling Units (MDUs) and Multi Business Units (MBUs), our properties are plagued by Exchange Only lines or lack of competitors' in-building network.

Generally, Hyperoptic installs our network at our own cost and risk of capital return. We solicit registrations of interest from residents to ensure that we maximise both our time and capital expenditure. For each site, we produce a 'Site Business Case' that takes into consideration Installation costs (materials and Labour, fibre circuit, CPE, equipment), on-

going costs (EAD or EAD/LA annual fee, internet transit, customer service), and expected revenues.

[Confidential]

We continually aim for efficiencies in working practices and cost savings in materials and services in order to further expand our addressable market to be able to offer the fibre services to more buildings and residents.

As Hyperoptic does not insist nor expect exclusivity within a building, there is no opportunity cost to the building of allowing our network to be installed. Residents can take service at their convenience and we maintain competitive pricing along with marketing leading product specifications.

BCMR Relevance

Hyperoptic makes use of OfCom regulated products in a unique way from other operators, as such the opinions and proposals expressed herein are likely to diverge from both larger mainstream operators and other alternative providers.

However, Hyperoptic offers an unmatched product set that offers the consumer true competition. Not only in Brand and customer service, but in product specification and options. With a current vision for 5m homes passed, Hyperoptic is committed to investing and innovating high speed residential and business across the UK for the maximum benefit of those on the network.

The outcome of the BCMR and subsequent regulatory changes have the potential to fundamentally shape the ability of consumers and SMEs to buy and use 1 Gb broadband in the near future.

[Confidential]

Response Questions

Question 2.1: Do you agree with our findings in relation to product market definition as set out in paragraphs 2.9 to 2.13 of the BCMR Temporary Conditions Statement, namely that we define a market comprising wholesale leased line services of all bandwidths at and below 1Gbit/s using contemporary interface (CI) technologies, including EFM? Please set out your reasons and supporting evidence for your response.

Hyperoptic strongly agrees with Ofcom's statement in 2.9 where it is stated that the absence of an SMP finding in respect of specific services, areas or exchanges should not be taken as a conclusion that those services, areas or exchanges are competitive. We also agree that this should not act to prejudge the outcome of the next BCMR. We support Ofcom's proposal to further analyse markets that have previously been used to make a market power determinations to decide whether any appropriate modifications of the SMP conditions are appropriate. However, we do believe that the current market definitions require review, but recognise that this a longer and more complex task.

It is clear that the dark fibre remedy will promote efficiency and better sustain competition, although the proposed 1Gb/s cap is a barrier to the overall remedy and opportunity to compete with Openreach's SMP.

[Confidential]

That said, Hyperopic remains a strong supporter of the dark fibre remedy and strongly supports Ofcom's proposal to implement it now and not wait until the next BCMR review cycle.

Question 2.2: Do you agree with our findings in relation to geographic market definition as set out in paragraphs 2.14 to 2.19 of the BCMR Temporary Conditions Statement, namely that we define the following geographic markets: (a) the CLA; (b) the LP; (c) the CBDs of each of Birmingham, Bristol, Leeds, Glasgow and Manchester; and (d) the RoUK excluding the Five CBDs? Please set out your reasons and supporting evidence for your response.

Hyperoptic understands the proposal to consider CBDs as separate from the original RofUK and can support a more specific geographical market definition. However, as was originally proposed in Hyperoptic's BCMR consultation response, Hyperoptic does not agree that 100m is an appropriate distance to which competitive calculations are considered given the cost of per metre expansion. 25m is a more appropriate distance as it aligns with the install costs per the regulated installation of CISBO services.

The following is an extract from our 2015 BCMR response in response to the CLA determination of non-SMP for Openreach, is even more relevant when defining additional geographical markets:

> Hyperoptic does not support Geography as the only 'sub-market' of CISBO services. In our experience, EAD Local Access variants are not available from major competitors across either Geographic market.

Hyperoptic also have a view that the analysis regarding pricing and profits has taken a CISBO provider view only and not a purchaser in particular with respect to ECCs. While ECCs will be less critical for very high CISBO orders as a determinate of competitive offering, for Local Access circuits, dig costs for up to 200m, £10k ECC represents 3-5 times the annual operating cost of an EAD LA 1 Gb circuit over the course of the review period. Refer to A18.8 to demonstrate that when digging is required, the cost is prohibitive on a Local Access product and likely for a non Local Access product as prices diminish over time. We refer to A18.14, which states that BT has a clear advantage in any case.

Hyperoptic have two additional issues with the definition of the CLA (and LP although less so given the treatment of that market) as a market based on the analysis used:

- Consideration is given for current definition of 'business' premises only
    - More people work are beginning to work from home and may be considered potential consumers of CISBO services
    - CPs should expect to use CISBO services to serve other premises with connectivity such as residential buildings, advertising kiosks, street furniture, and uses yet to be imagined.
    - Given the ubiquity of BT's ducts and fibre network over that of its rivals it has a clear advantage to supply to CISBO to anywhere that has not been previously connected by its competitors or offering a large enough financial incentive for a competitor to invest in network build.
- While the analysis looked at the current circuits being provided, the underlying commercial decisions used to decide to 'dig' for example are not.
    - It could be that the decision for a network owner to be willing to dig for a number of circuits at a subsidised rate to a CP could be part of a large contract (multiple circuits over multiple years).
    - It could be that the circuits provided with a dig then gave entry for the network operator to then offer services to other CPs (or the same CP) to serve other businesses located at the same location.
    - As such when considering other uses of CISBO that are not to business locations nor to large CPs, the interest of an infrastructure provider to offer services cannot be extrapolated.

By deregulating the market in places where BT can provide a circuit more competitively and efficiently than another network operator, it is giving unfair power to BT to allow it to choose winners and losers across CPs (including BT) for direct circuits and other types of business models.

Therefore, Hyperoptic do not accept the logic of A18.20 and that the cost implications of digs to CPs is not taken more into consideration when defining the CLA.

Question 2.3: Do you agree with our assessment of the CI Core, as set out in paragraphs 2.101 to 2.111 of the BCMR Temporary Conditions Statement? Please set out your reasons and supporting evidence for your response.

Hyperoptic supports Ofcom's response to the Tribunal's findings. However, we would suggest that the correct measure of competition in the CI core would be the availability

of competing services available from other companies, not just the mere presence of them. We would be pleased to share information with Ofcom relating to our findings as to the alternative backhaul providers to exchanges. This, along with information from other CP's would help Ofcom understand the competitive landscape in a detailed and practical way.

Question 2.4: Do you agree with our findings that BT has SMP in the markets for Lower Bandwidth CISBO services in the LP, the CBDs of each of Bristol and Manchester and the RoUK excluding the Five CBDs, up to the end of March 2019, as set out in paragraphs 2.20 to 2.100 of the BCMR Temporary Conditions Statement? Please set out your reasons and supporting evidence for your response.

Hyperoptic agrees with Ofcom that BT has SMP in the markets for lower Bandwidth CISBO services in the markets stated.

Question 3.1: Do you agree with our proposed design of the dark fibre access remedy? Please set out your reasons and supporting evidence for your response.

Hyperoptic agrees with the proposed design, but would still like to see fit for purpose migration from an existing EAD service to a dark fibre product. Openreach's justification was that a 'new provide' was necessary due to stricter quality and testing requirements for the dark fibre product. The aim of this was to provide assurance that the product will supply very high bandwidths. We would suggest that this no longer applies when speeds are limited to 1Gbps and therefore the migration from EAD services should be more cost conscious as there would not be any additional quality or testing requirements as EADs and EAD/LAs are specified to 1 Gb/s bandwidth.

For Openreach, a migration is an equipment removal at each end and should not require a new provide. We also propose and insist on a self-migration path whereby the equipment can be removed by the cp and returned to Openreach. This will allow CPs to manage their own migrations without the requirement and overhead of scheduling with Openreach's engineers and paying for TRC for out of hours' migrations.

[Confidential]

Question 3.2: If BT were to make available a dark fibre product based on the design set out above, how long would it take before your company was in a position to purchase it? From what date would you want BT to make such a product available?

Hyperoptic was ready to purchase dark fibre in October 2017 and remains ready. We will place orders immediately following launch.

Question 4.1: Do you agree with our assessment of the benefits of our proposed dark fibre remedy? Please set out your reasons and supporting evidence for your response.

Hyperoptic agrees with Ofcom's assessment of the benefits of the proposed dark fibre remedy although would clearly prefer a full dark fibre product not limited in bandwidth. Openreach is able to use dark fibre to serve as backhaul from FTTC and FTTP nodes which enables them to achieve a competitive advantage in offering wholesale products to the residential and business markets.

Recognising that there is no longer a strict delineation of connectivity products serving business and residential customers and that innovation is critical to the future of connectivity across the UK, a review of market review definitions should be reviewed to remove usage from the definition but focus instead on passive versus active infrastructure.

Question 4.2: Do you have evidence on the current relative prevalence of each scenario of active equipment configurations as shown in Figures 4.1 and Figure 4.2? Please set out your reasons and supporting evidence for your response.

Hyperoptic's network makes extensive use of EAD and EAD LA products to connect buildings back to the local exchange. The majority of these connections will be connected via scenario 1 in figure 4.1. We estimate 70-80% of our coverage footprint is connected in this way.

As such Hyperoptic expect efficiencies from not requiring book-ending as described in the scenario. In addition, the DF remedy would allow flexibility in the type of equipment that can be deployed on either end of the circuit thus supporting innovation in network provision.

Question 4.3: Do you agree with our view, as expressed in paragraph 4.27, that situations where cost savings to providers will be available from dark fibre are likely to be common? Please set out your reasons and supporting evidence for your response.

Hyperoptic agrees with Ofcom that cost savings to providers will be common on the basis that scenario 1 is used extensively in our network as described previously. A cheaper dark fibre alternative will save exchange space and is altogether more efficient.

Question 4.4: Do you agree with our assessment of the risks and costs of our proposed dark fibre remedy? Please set out your reasons and supporting evidence for your response.

[Confidential]

Question 4.5: Do you agree that we should impose a dark fibre remedy for the period April 2018 to March 2019? Please set out your reasons and supporting evidence for your response.

Hyperoptic agrees. Openreach clearly has SMP in the markets defined and the remedy is reasonable and in the interests of greater competition.

Question 5.1: Do you agree with our forecast for dark fibre take-up in 2018/19? Please set out your reasons and supporting evidence for your response, including any volume forecasts you have for consumption of dark fibre for 2018/19.

The forecast assumptions set out in table 5.2 look reasonable.

Question 5.2: Do you agree with our proposed charge control on the proposed dark fibre product? Please set out your reasons and supporting evidence for your response.

Hyperoptic chooses not to respond to this question.