



**SKY'S RESPONSE TO OFCOM'S DARK FIBRE CONSULTATION: CONSULTATION ON ADDING DARK FIBRE TO THE REMEDIES FOR BUSINESS CONNECTIVITY MARKETS, DATED 23 NOVEMBER 2017**

**SECTION 1: INTRODUCTION**

- 1.1 The total amount of data carried by UK fixed access networks increased over the last year by 52% to 4.17 EB<sup>1</sup>. Businesses and consumers rely on communications networks to deliver increasing amounts of traffic to support bandwidth-intensive applications (such as video), data transfer between sites, off-site data storage and cloud computing, amongst other things. It is essential, therefore, for communications providers (CPs) to support consumers and business users by ensuring that they have sufficient, resilient and cost-effective backhaul bandwidth to meet increasing demands.
- 1.2 Dark fibre access (DFA) is necessary to promote competition in the provision of backhaul and other communications services. Backhaul and other leased lines provide the backbone to support the fixed and mobile services upon which consumers and businesses rely.
- 1.3 DFA would enable CPs to deliver backhaul circuits more efficiently to themselves and others without having to rely on Openreach's inflexible and expensive active products. Dark fibre provides significant benefits over Openreach's active services, including the ability for CPs to plan networks with greater resilience, delivering more reliable services at a reasonable cost to consumers.
- 1.4 Additionally, appropriately priced and unconstrained DFA (coupled with other passive remedies) would promote greater investment in the network and expose more of the value chain to competition. This could lead to improved levels of innovation, product differentiation, cost control, price competition and service quality to the benefit of all end users of leased line products.
- 1.5 Without effective DFA, CPs are unable to benefit from the requisite economies of scale and scope to invest in alternative fibre access networks or compete as effectively in the supply of backhaul and other communications services.
- 1.6 Ofcom's proposed introduction of a DFA remedy in April 2016<sup>2</sup> would have delivered significant benefits to competition amongst CPs, and was essential to delivering more reliable, cost-effective backhaul. Sky and other CPs had completed extensive engagements with Openreach for delivery of a DFA product and were due to commence a DFA trial in October 2017, with a view to launching services shortly thereafter.
- 1.7 The revocation of the BCMR statement by the Competition Appeal Tribunal (CAT), and the remittal of the business connectivity market review back to Ofcom, has left Openreach's customers without a remedy that is essential to the development of the communications sector and infrastructure investment.

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<sup>1</sup> Paragraph 4.60, 'Connected Nations 2017: Data analysis', Ofcom, 15 December 2017. (Available at: [https://www.ofcom.org.uk/\\_\\_data/assets/pdf\\_file/0016/108511/connected-nations-2017.pdf](https://www.ofcom.org.uk/__data/assets/pdf_file/0016/108511/connected-nations-2017.pdf))

<sup>2</sup> 'Business Connectivity Market Review', Ofcom statement, 28 April 2016 (the "BCMR statement").

- 1.8 CPs are ready to use DFA. Sky and others have developed business plans dependent on DFA. It is essential to put in place regulation to ensure swift delivery of a dark fibre access remedy, at least in respect of those services where, notwithstanding the CAT's judgement in the BCMR appeals, it remains uncontested that Openreach has SMP.
- 1.9 The proposed remedy – DFA capped at 1 Gbit/s – would enable Sky to [REDACTED] [REDACTED] Sky strongly supports the introduction of this remedy at the earliest date possible and on terms that promote effective competition.

## SECTION 2: DARK FIBRE ACCESS IS FUNDAMENTAL TO COMPETITION

- 2.1 During the previous business connectivity market review, Sky strongly supported the introduction of an unconstrained DFA remedy that is flexible in design and easy to use. This remedy would be a cornerstone to promote take up of passive remedies and stimulate infrastructure based competition.
- 2.2 Additionally, the DFA remedy would address the tension between consumers' increasing usage of broadband and fibre services and their demand for lower priced services. Consumers' increasing usage of broadband services leads to greater backhaul bandwidth requirements. Openreach's pricing of backhaul services increases significantly for higher bandwidth services, with these increased costs impacting consumers in the form of higher broadband bills.
- 2.3 Following the CAT's judgment, it would be difficult for Ofcom to introduce an unconstrained dark fibre access remedy within the next few months. In these circumstances, Sky strongly supports the swift action taken by Ofcom to introduce a more limited DFA remedy by April 2018. This would deliver material, and necessary, benefits in the short term and lay the groundwork for a more effective remedy in the future.
- 2.4 Sky anticipates that the proposed DFA remedy would deliver two immediate benefits.
- 2.5 First, [REDACTED]  
[REDACTED]
- 2.6 Sky has [REDACTED]  
[REDACTED]
- (a) [REDACTED]
- (b) [REDACTED]
- (c) [REDACTED]

<sup>3</sup> 'Communications Market Report 2017', Ofcom, page 147. Available here: [https://www.ofcom.org.uk/data/assets/pdf\\_file/0017/105074/cmr-2017-uk.pdf](https://www.ofcom.org.uk/data/assets/pdf_file/0017/105074/cmr-2017-uk.pdf)

- 2.7 [REDACTED]. A DFA remedy – even limited to 1 Gbit/s – would enable Sky to deliver material cost savings over BT’s equivalent active products. Using Ofcom’s estimated cost savings of £400/annum per circuit, even the proposed DFA remedy would deliver over [REDACTED] in savings in the first year.
- 2.8 Conversely, the absence of a DFA remedy would unnecessarily constrain Sky’s (and presumably other CPs’) ability to compete effectively with BT in delivering these services. Even a limited DFA remedy will deliver material benefits that will ultimately increase competition in the provision of communications services [REDACTED]
- 2.9 Second, a DFA remedy would enable Sky and other CPs to cost-effectively improve resilience in their backhaul networks. Openreach’s Ethernet products are highly cost-inefficient for resilient aggregation. With dark fibre, a CP can eliminate this inefficiency by utilising optical transmission technologies to service each exchange with wavelengths over an optical ring; thereby improving customer experience at a feasible cost (1 additional circuit per ring). Openreach’s current Ethernet products run point-to-point, making ring topologies infeasible with double the number of circuits required to achieve resilience.

Aggregation technique	Circuits required	Cost premium for resilience
Unprotected point-to-point	8	-
<i>Metro Ring (DFA + transmission)</i>	9	13%
Protected point-to-point	16	100%

**Alternatives for typical resilient metro aggregation serving 8 exchanges**

- 2.10 An unconstrained DFA remedy would deliver material benefits for backhaul, given that Sky would be able to replace multiple 10 Gbit/s Ethernet circuits with DFA and optical transmission equipment. The currently proposed DFA remedy for circuits only up to 1 Gbit/s means however, that Sky will be unable to use DFA for [REDACTED] backhaul circuits.
- 2.11 Ofcom has proposed maintaining similar pricing to that set in the BCMR statement for unconstrained DFA. Therefore, BT would be able to set prices for dark fibre on an ‘active minus’ basis. This severely limits the ability for Sky to use dark fibre to provide backhaul.
- 2.12 Sky currently has approximately [REDACTED] leased lines, of which around [REDACTED] are 1 Gbit/s backhaul circuits. At present pricing, [REDACTED] of those circuits would pay back over a five year period if Sky switched to DFA. Sky anticipates that this would generate [REDACTED] [REDACTED]. Moreover, the fact that [REDACTED] % of circuits could be switched across to DFA, in addition to the 1 Gbit/s bandwidth constraint, means that Sky would not be able to re-architect its aggregation network in order to achieve the anticipated resilience benefits.

**SECTION 3: PRICING**

- 3.1 As set out above, Ofcom proposes maintaining pricing that is consistent with its BCMR statement. That is to say that Ofcom proposes retaining the retail minus pricing approach with reference to BT’s 1 Gbit/s active services (adjusted to take account of changes to the application of non-domestic rates).
- 3.2 Ofcom’s justification for active minus is that it allows for a smooth introduction of dark fibre. Ofcom seeks to promote an effective DFA remedy while removing any risk of price arbitrage between active and passive products. However, as set out in section 2 above,

Sky does not consider that Ofcom's proposed remedy in the current consultation goes far enough.

- 3.3 The proposed DFA remedy is significantly more limited than that set out in the BCMR statement. CPs will be limited to using DFA to operate services up to and including 1 Gbit/s only. This makes the business case for investing in DFA significantly more limited as it will only be suitable for specific use cases. The proposed remedy will only be viable for a small proportion of backhaul circuits, removing any potential economies of scale and scope.
- 3.4 As a consequence, Ofcom's concerns about price arbitrage, and the risk to Openreach's active services, are not well-founded. The new DFA remedy must be priced much more keenly – on a cost plus basis – before CPs can achieve cost benefits of using DFA.

**Sky**

**January 2018**