



BUSINESS CONNECTIVITY MARKET REVIEW: TIMETABLE AND INITIAL CALL FOR INPUTS

SKY'S RESPONSE

This is the response of British Sky Broadcasting Limited ("Sky") to Ofcom's Business Connectivity Market Review ("BCMR"): Timetable and initial call for inputs dated 1 April 2014.

1. SUMMARY

- 1.1 Continuing increases in data consumption over residential broadband lines is shifting demand for LLU backhaul to higher bandwidth circuits but high barriers to entry to the business connectivity markets mean that BT is likely to remain the dominant provider.
- 1.2 Openreach's prices for backhaul circuits with bandwidth above 1Gbit/s ("higher bandwidth services") appear excessive and, as a result, could cause significant economic harm.
- 1.3 While a charge control on higher bandwidth services could address this harm, a requirement to offer passive products could be an effective remedy to BT's likely SMP and could support greater innovation and investment in the delivery of LLU backhaul, business grade superfast fibre broadband and other services.
- 1.4 Openreach's quality of service for its business connectivity products is too low, which necessitates Ofcom taking steps in the next review aimed at improving quality to an acceptable standard.

2. CONTINUING INCREASES IN DATA CONSUMPTION OVER RESIDENTIAL BROADBAND LINES IS SHIFTING DEMAND FOR LLU BACKHAUL TO HIGHER BANDWIDTH CIRCUITS

- 2.1 Sky's is an LLU operator providing residential broadband and telephony services, and as such, a key interest in the forthcoming BCMR is in LLU backhaul services that support the delivery of these retail services.
- 2.2 As data usage over consumer broadband connections continues to increase, so does LLU operator demand for backhaul bandwidth. Over the market review period Sky will require increasing higher bandwidth LLU backhaul capacity¹ in order to keep pace with:
 - (a) rapid growth in data usage, both in terms of speeds² required by consumers, and volumes of data usage; and
 - (b) continued growth in broadband subscriber volumes as a result of both market-wide increasing broadband penetration and growth of Sky's market share.

¹ In previous reviews where Sky provided Ofcom with forecasts of backhaul bandwidth requirements it actually underestimated the true trend. Sky estimated that by the end of 2012 over [CONFIDENTIAL] of its exchanges would require backhaul capacity greater than [CONFIDENTIAL] and by the middle of 2015, this proportion would have increased above [CONFIDENTIAL] with the strong possibility that a small subset of exchanges would require bandwidth in excess of [CONFIDENTIAL]. In fact, these projections have been significantly overtaken. In May 2014 around [CONFIDENTIAL] of the links were greater than [1Gbit/s CONFIDENTIAL] and [CONFIDENTIAL] were above [CONFIDENTIAL].

² Superfast broadband subscribers are also likely to have a higher peak data usage than DSL broadband subscribers.



2.3 Sky expects to continue to upgrade the capacity of its backhaul links to such an extent that it will become predominantly reliant on [REDACTED] CONFIDENTIAL backhaul links over the period of the next BCMR.

Table 1: Sky forecast³ backhaul links bandwidth requirements [CONFIDENTIAL]

	May-14 Actual	Dec-14 Forecast	Dec-15 Forecast	Dec-16 Forecast	Jun-17 Forecast
Backhaul bandwidth requirements, number of circuits					
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Backhaul bandwidth requirements in % terms					
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

2.4 As a result, CPs like Sky face the risk of significantly increasing input costs, given the current pricing structure of Openreach’s higher bandwidth backhaul services. Rising backhaul costs could have a number of negative implications for consumers, including:

- (a) increasing retail broadband prices;
- (b) receding growth in broadband penetration;
- (c) weakened incentives for LLU Operators to invest in unbundling additional local exchanges, limiting effective choice between broadband services;
- (d) weakened incentives for CPs to invest through upgrading capacity; and
- (e) greater incentives for CPs to manage traffic and impose usage caps.

2.5 Given these concerns it is appropriate to examine the implications of the increasing reliance on 10Gbit/s links in any market definition, market power and remedies analysis in the forthcoming BCMR.

3. HIGH BARRIERS TO ENTRY MEAN THAT BT IS LIKELY TO REMAIN THE DOMINANT BUSINESS CONNECTIVITY PROVIDER

3.1 The increasing demand for higher bandwidth LLU backhaul could have ramifications for Ofcom’s existing market definitions, SMP designations and remedies. For example, Ofcom may find that the product market definitions have changed since the previous review and/or that different remedies are appropriate.

3.2 Sky considers that BT would likely have SMP in any appropriately defined product markets for higher bandwidth links. [REDACTED] CONFIDENTIAL, Openreach has a national network, and as such has a distinct advantage over other providers. BT’s market power, in the provision of LLU backhaul links at least, is entrenched and is likely to remain over the period of the next BCMR for a number of reasons,⁴ including:

³ Sky forecast was estimated in May 2014.

⁴ The fact that CPs take backhaul products from operators other than Openreach is not necessarily evidence of effective competition.



- (a) CPs having to undertake multiple backhaul upgrades⁸, leading to unnecessary costs and customer disruption;
 - (b) inefficiently low consumption and quality of broadband services where it is not economically viable to upgrade to higher bandwidth backhaul circuits; and
 - (c) inefficiently high consumer prices.
- 4.6 The appropriate regulatory intervention could include charge controls for Openreach's higher bandwidth products and/or a requirement to offer passive remedies that allow access to BT's infrastructure.
- 5. A REQUIREMENT TO OFFER PASSIVE PRODUCTS COULD BE A MORE EFFECTIVE REMEDY TO BT'S LIKELY SMP IN HIGHER BANDWIDTH MARKETS**
- 5.1 Sky considers it appropriate for the BCMR to consider whether the current lack of passive remedies is appropriate and whether it restricts investment incentives for CPs.
- 5.2 In Sky's view, the lack of competition on the majority of routes where it requires higher bandwidth LLU backhaul, the low likelihood of market entry on these routes and the inefficiencies of procuring LLU backhaul from multiple suppliers, all point towards Openreach's 'middle mile' fibre and duct network being an enduring economic bottleneck.
- 5.3 The demand for higher bandwidth LLU backhaul links means that high capacity fibre is the strategic long term solution for much of a LLU Operator's backhaul requirements. As such, it could be justifiable to require BT to offer regulated access to its ducts – for example via Physical Infrastructure Access ("PIA") – or even to its unlit fibre ("dark fibre").
- 5.4 Passive remedies could allow CPs to:
- (a) expand network capacity in current on-net areas without repeated upgrade costs;
 - (b) invest and innovate to expand the scope of services offered, similar to the investments in LLU; and
 - (c) re-evaluate opportunities to invest in Next Generation Access ("NGA") for residential and business customers.
- 5.5 Passive products could potentially be used for a variety of applications in addition to LLU backhaul, if CPs were given the opportunity to invest and innovate. Similar to LLU, it should not be considered necessary to identify the sources of innovation resulting from passive remedies at this stage.
- 5.6 Moreover, both PIA and dark fibre products could be effective remedies under different conditions:
- (a) PIA is likely to be the preferred passive remedy for a CP to connect to exchanges that are a small but significant distance away (c.2-3km) from its nearest Point of Presence ("POP"), because at this distance relatively short fibre pulls by CPs via Openreach's ducts could be economically viable and practical; and
 - (b) dark fibre would be preferable for longer point-to-point links, where PIA would be more complicated or costly due to duct limitations.

⁸ Openreach's pricing of higher bandwidth services is such that it can be rational for CPs to purchase lower bandwidth links and upgrade on multiple occasions, as opposed to renting higher bandwidth links in anticipation of increasing future demand.



5.7 Therefore, it would be appropriate for the BCMR to consider whether both remedies should be made available.

Sky considers it appropriate for the BCMR to consider the suitability of passive products for provision of business grade superfast broadband

5.8 Superfast Broadband (“SFBB”) products for businesses could be a substitute to current leased line products. However, given the relatively high revenues and returns available from leased line products compared to those likely to be available on products based on cheaper inputs, such as Generic Ethernet Access (“GEA”), BT may not have a strong incentive to roll out NGA services to areas with a high concentration of businesses.

5.9 Therefore, it is appropriate to consider whether such services are substitutes and whether BT has the appropriate incentives to roll out NGA in business areas. Passive remedies could allow competitors to provide such services to businesses instead.

6. APPROPRIATE ACTION SHOULD BE TAKEN TO IMPROVE THE QUALITY OF SERVICE PROVIDED BY OPENREACH

6.1 Openreach backhaul is an important input to Sky’s broadband services, and as such the quality of these inputs has a direct impact on the quality experienced by its customers. Broadband and telephony are essential services which are generally relied upon on a daily basis. It is important therefore that backhaul circuits are promptly provided and that any faults are repaired quickly.

6.2 However, Sky considers Openreach’s business connectivity provisioning and repair performance to be inadequate and needs to be improved.

6.3 Sky considers there to be three key reasons for this:

- (a) BT’s SMP is such that it has little incentive to improve its quality of service as there is little competition for business connectivity services;
- (b) some of Openreach’s business connectivity products are charge controlled (by RPI-X), and it therefore has the incentive to increase profits by reducing costs. However without mandated minimum quality of service standards these cost reductions can result in reduced service quality; and
- (c) CPs have little negotiating power with Openreach in terms of Service Level Agreements (“SLAs”) and Service Level Guarantees (“SLGs”) because of both BT’s SMP and the asymmetry of information available to Openreach and CPs regarding quality of service metrics for Openreach.

6.4 As a result, the current SLA/SLG regime is not fit for purpose and has resulted in SLAs which are inadequate.

6.5 The fact that poor service has persisted over time without improvement⁹ suggests that there is inadequate incentive on Openreach to ensure an appropriate level of quality.

6.6 Examples of the current SLA/SLG regime’s deficiencies are included in Annex 1.

6.7 There are a number of ways in which the quality of service regime could be improved to the benefit of CPs and consumers. For example:

⁹ See Chart 1 of the UK Competitive Telecommunications Association (UKCTA) response to the BCMR call for inputs, dated 26 May 2014, which shows that Ethernet provisioning has been consistently below target for a sustained period.



- (a) establishing a minimum quality of service standard for business connectivity services by adopting a similar approach to that in the Fixed Access Market Review¹⁰; and
- (b) SLA/SLG negotiations should be time-bounded and overseen by the Office of Telecommunications Adjudicator (“OTA”). Failure to agree terms on this basis should result in formal Ofcom intervention.

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¹⁰ However, Ofcom should consider more stringent targets than those proposed in the Fixed Access Market Review.



ANNEX 1 – EXAMPLES OF WEAKNESS IN THE CURRENT QUALITY OF SERVICE REGIME

The current SLA/SLG regime is ineffective because it does not compensate CPs for all areas of poor performance. Primarily, this relates to Openreach's treatment of Customer Delivery Dates ("CDDs"). Examples experienced by Sky include:

- (a) on many occasions incorrect reason codes are quoted in the Keep Customer Informed notices ("KCIIs");
- (b) CDDs are set and subsequently moved back for unjustified reasons;
- (c) reasons quoted in KCIIs to justify moving back a CDD do not provide sufficient clarity into the circumstances that made it necessary to move a CDD;
- (d) CDDs have been amended unnecessarily in cases of orders submitted as early as six months in advance due to Openreach commencing provisioning work only two months before the original CDD but subsequently discovering issues that cannot be resolved within two months. To Sky's knowledge, Openreach performs no due diligence and planning that could pre-empt provisioning issues that cannot be resolved within two months; and
- (e) once a CDD has been erroneously pushed back, the Openreach system does not allow bringing it forward.

Moving back CDDs adversely impacts a CP's service and therefore there is a negative impact on its customers.

Further, the current regime does not capture all areas of poor Openreach performance. For example:

- (a) there is no SLA/SLG for severe performance degradation of a circuit even though it is in practice comparable to total outage as a CP's customers are likely to be without service; and
- (b) Openreach provides no out-of-hours engineers to repair 10Gbit/s services and there is therefore only a 12 hour repair lead time for services which are often more critical than 1Gbit/s links (which have a 5 hour repair target). The increasing reliance on 10Gbit/s services makes it more pressing that Openreach introduces faster repair times for 10Gbit/s services.