



OFCOM'S STRATEGIC REVIEW OF DIGITAL COMMUNICATIONS INITIAL SUBMISSION BY SKY

Executive Summary

Sky welcomes Ofcom's strategic review of digital communications. It has been ten years since the last strategic review, and much has changed since then. Strategic reviews of this type provide a good opportunity to stand back from the detail and to consider whether improvements can be made to sustain positive outcomes in the UK communications sector over the next decade.

The key focus of Ofcom's review should be the issue of whether to make a market investigation reference ("MIR") to the Competition and Markets Authority ("CMA") under the Enterprise Act 2002 in relation to the provision of fixed line communications services. This was a central focus of Ofcom's first strategic review. In that case, however, Ofcom decided to accept undertakings from BT instead of making a MIR. Those undertakings led to the formation of Openreach, and remain a key part of the UK's telecommunications regulatory infrastructure today.

Since then, while there have been many positive developments, a number of significant problems have emerged in the UK telecommunications sector which warrant a MIR being made. In particular:

- the limited scope for competitors to BT to deliver superfast broadband services via their own infrastructure, combined with BT's vertical integration and upstream market power, means that there is a significant risk of BT re-establishing a strong position in the retail provision of those services in the UK. Superfast broadband services are of critical importance to the future economic prospects of the UK, the daily lives of millions of consumers and the livelihood of thousands of small businesses. A reduction in competition in the market risks unwinding the important gains that tough competition in broadband services has delivered in the UK over the past ten years; and
- BT's Openreach division does not deliver 21st century quality of service. Openreach owns and is responsible for maintaining the UK's critical 'last mile' copper network – the ubiquitous network of lines into peoples' homes, and to small businesses. The quality of service delivered to consumers by Openreach falls far short of an acceptable standard, including: an excessive number of faults, failure to meet targets for repairing faults, long waits to have new lines installed, constantly missing appointments and, when appointments are met, often not completing jobs.

These quality of service problems have a direct impact on consumers and small businesses in the UK, resulting in dissatisfaction and significant detriment. However, they also affect competition in the market by discouraging consumers from switching services – a status quo that favours BT.

When Ofcom created Openreach in 2005 it expressed a hope that the new organisation would serve other operators, like Sky, with *"zeal, energy and enthusiasm"*. This is not Sky's experience of Openreach. On the contrary, Openreach is often reluctant to engage when requested by Sky to explore innovation in its products and services and it takes a considerable period of time – often years – for proposed changes to occur.

These problems merit detailed investigation by the CMA. Given the rapid changes taking place in the sector, this should happen as soon as possible.

OFCOM'S STRATEGIC REVIEW OF DIGITAL COMMUNICATIONS INITIAL SUBMISSION BY SKY

Introduction

1. Sky welcomes Ofcom's strategic review. It has been ten years since Ofcom's last strategic review of telecommunications services ("TSR") and a great deal has changed in relation to the provision and use of telecommunications services in the UK since then. Ofcom's rolling programme of triennial market reviews provides a critical mechanism for ongoing review of developments in relation to telecoms markets, and they have been an excellent way of ensuring that telecoms regulation remains appropriate and proportionate. Nevertheless, there are good reasons for undertaking a broader strategic review. In particular it provides an opportunity:
 - to take a step back and consider whether, as a whole, regulation is appropriately targeted and fit for purpose (including regulation that is not covered by market reviews);
 - to consider issues which potentially span a number of market reviews; and
 - to consider whether the undertakings given by BT in 2005 have worked as intended and remain fit for purpose; and
 - to revisit the issue of whether there is merit in a MIR to the CMA.
2. In this submission we focus on issues concerning the provision of fixed line telecommunications services, particularly broadband services. This is because in Sky's view the most significant and pressing issues that Ofcom's review should focus on lie predominantly in the provision of fixed line telecoms services.¹

The need for a market investigation reference to the Competition and Markets Authority

3. The UK telecoms sector over the past ten years generally has been a success story. Among other things, it has delivered important new products and services to consumers at falling prices. Consumers have benefited significantly from strong competition and rapid technological progress.
4. Beneath the surface of this positive picture, however, significant problems have developed. The common thread to those problems is BT's ownership of Openreach. There are two key areas of concern: (i) the risk of diminishing retail competition as the UK transitions to fibre-based broadband services, and (ii) the under-performance of Openreach, which is responsible for the maintenance, operation and development of the UK's crucial 'last mile'

¹ The scope of Ofcom's review therefore should consider issues in retail broadband and telephony markets and the key wholesale inputs that support them such as wholesale local access (or 'last mile') and backhaul (or 'middle mile'). In this regard, these inputs are set to become even more important for the provision of both fixed line and mobile services.

This submission also does not take into account the potential effects of the proposed merger of BT/EE, in view of the fact that it remains subject to regulatory scrutiny. Sky considers that, if approved, the merger would give rise to a significant risk of a number of the problems in this submission being exacerbated, and potentially extended into the mobile telephony sector.

fixed access telecommunications network. We discuss each of these in greater detail in the following sections.

(i) Diminishing competition in the provision of broadband services

The importance of strong competition in the provision of broadband services

5. Increasing productivity is one of the key economic challenges facing the UK. In the medium to long term, growth in productivity is the key driver of improvement in living standards² and both the current performance and future prospects for productivity growth in the UK are of significant concern.³
6. Broadband services have a key role to play in enabling better economic outcomes. Internet access is a 'general purpose technology' – a technology that is critical to the outcomes delivered across a broad range of sectors, and which is a key driver of economic growth.⁴ Accordingly, ensuring that the UK telecoms sector delivers high quality, reliable, low cost broadband services is likely to make a key contribution to delivery of positive economic outcomes in the UK in the next twenty years.
7. Moreover, internet-delivered services have now become integral to peoples' lives in a myriad of ways – including communication (now often via social media), finding and watching or listening to audiovisual and audio content, and being a key source of news and information. The ability of businesses to flourish – and in some cases their very survival – depends on access to high quality, reliable, and affordable internet access. The importance of internet-delivered services to consumers and businesses is only likely to grow over the next decade.
8. In many respects the past ten years have delivered highly positive outcomes for UK consumers and businesses in relation to broadband internet access. The bold decisions taken by Ofcom in 2005 enabled scale players such as Sky, TalkTalk, Orange and others to enter the telecoms sector and to compete strongly against BT, the incumbent operator. Sky has invested over £1 billion in its network, and others have also invested significantly. This competition produced a range of benefits, notably rapid rollout of new broadband technologies, such as ADSL2+, which increased broadband speeds significantly, and innovative new approaches to pricing and packaging (such as 'unlimited' tariffs). The result has been high levels of take-up of broadband services⁵, falling charges⁶, and impressive growth in broadband speeds delivered to users⁷. It resulted in BT having the lowest share of

² As Paul Krugman has observed: "Productivity isn't everything, but in the long run it is almost everything. A country's ability to improve its standard of living over time depends almost entirely on its ability to raise its output per worker." Age of Diminished Expectations, Cambridge, MIT Press, 1994.

³ See, for example, 'Productivity, the UK's No. 1 challenge', Frances Coppola, Pieria, 20 March 2015. (http://www.pieria.co.uk/articles/productivity_the_uks_no1_challenge) for an overview of this issue, and 'Productivity and Business Policies', Anna Valero and Isabelle Roland, Centre for Economic Performance, LSE, Paper EA021, (<http://cep.lse.ac.uk/pubs/download/EA021.pdf>.)

⁴ See: for example, 'UK Broadband Impact Study, Impact Report', SQW, November 2013. (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/257006/UK_Broadband_Impact_Study_-_Impact_Report_-_Nov_2013_-_Final.pdf.)

⁵ Broadband adoption is at 78% up from 31% in 2005, and LLU accounts for 44% of broadband connections up from 17% in 2005.

⁶ On a like for like basis prices for broadband have fallen significantly since LLU took off. In 2004 the price of 512kbit/s advertised service speed was around £25 per month (Table 2: Residential broadband prices, June 2004 in Ofcom's report 'The Communications Market 2004' August 2004, available at http://stakeholders.ofcom.org.uk/binaries/research/cmr/cm_2004.pdf). Today consumers can get "up to" 76Mbit/s service speed over fibre for the same amount while the price of 16Mbit/s ADSL2+ broadband service is around £10 per month (see Figure 5.9 Comparison of major ISPs' superfast and current generation broadband services, Ofcom's 'The Communications Market Report', August 2015, available at http://stakeholders.ofcom.org.uk/binaries/research/cmr/cmr14/2014_UK_CMR.pdf).

⁷ A typical ADSL connection in 2014 offers headline speeds of up to 10Mbit/s compared to 512kbit/s in 2004.

broadband subscribers of any incumbent telco in the big five Europe countries.⁸

9. The key to the strong outcomes delivered in relation to broadband services in the UK during the second half of the 2000s has been the strength of competition in the provision of these services to consumers. This competition derived from the ability for new entrants to invest in their own infrastructure in order to deliver broadband services to their customers, via the local loop unbundling policy driven by Ofcom. This had three important effects.
10. First, it encouraged the entry of large players to the sector able to take advantage of the significant economies of scale and scope associated with deployment of nationwide broadband infrastructure, and which have the experience and assets required to acquire, retain and manage large subscriber bases.
11. Second, it facilitated competition through product differentiation. Rather than acting as simple resellers of a BT-provided wholesale service, dependent on margins determined by regulation, LLU operators were able to compete with BT (and each other) by differentiating their services in various ways, for example by investing in different technology than that used by BT to deliver broadband services, to focus marketing efforts on 'unlimited' broadband services, and by differentiating their quality of service from that of rivals.
12. Finally, it shifted control over costs for a significant portion of the product cost stack from BT to CPs, who had strong incentives to drive down costs. These cost savings could then be passed on to consumers in lower prices, reinvested in expanding operators' networks and improving the services delivered to consumers.

Diminishing retail competition as the UK transitions to fibre-based broadband services

13. The ability to unbundle local loops was critically dependent on the fact that CPs could install their own equipment in BT's local exchanges. At present, and for the foreseeable future, the situation in relation to fibre-based broadband services is very different. The way in which BT has been permitted to roll out fibre-broadband services means that there is currently little prospect of other operators being able to do anything other than re-sell BT's Generic Ethernet Access ("GEA") service in order to supply their customers with a competing broadband service.⁹
14. The UK is now in the process of transitioning to fibre-based broadband services. This situation, combined with BT's vertical integration, provides BT with a significant opportunity to win back market share from rivals, and to re-establish a dominant position at the retail level of the sector. If this situation is not addressed it has the potential to unwind many of the significant benefits that have been delivered by tough infrastructure-based competition in broadband services in the past ten years.
15. BT's vertical integration means that it has a substantial advantage over other non-integrated CPs in upgrading existing broadband subscribers to superfast broadband. The Openreach charges faced by other CPs, like Sky and TalkTalk, when a customer moves from a standard broadband service to a superfast broadband service, are a real economic cost;

⁸ See Figures 22 and 36 of the European Broadband Scorecard published by Ofcom in February 2015. (http://stakeholders.ofcom.org.uk/binaries/research/broadband-research/scorecard/2015/European_Broadband_Scorecard_Q1_2015.pdf)

⁹ The departure from the strong infrastructure-based competition in standard broadband to service-based competition in the provision of SFBB services stemmed from an exemption to the BT Undertakings. Instead of Openreach providing passive fibre access (in accordance with the original design of the Undertakings), pursuant to a variation to the Undertakings Ofcom permitted Openreach to provide an active SFBB wholesale access product - GEA. See: 'Variation to BT's Undertakings under the Enterprise Act 2002 related to Fibre-to-the-Cabinet', Ofcom, 11 June 2009, available at <http://stakeholders.ofcom.org.uk/binaries/consultations/fttc/statement/statement.pdf>.

they have a significant impact on the profitability of upgrading customers, and diminish significantly the incentive to do so. By contrast, for BT as a whole such charges are 'wooden dollars'; internal transfer charges which do not matter when considering the profitability of upgrading customers.¹⁰

16. Moreover, around █% of the value from rival CPs like Sky upgrading a customer from standard to superfast broadband is captured by BT in higher wholesale charges. This provides other CPs with little incentive to incur the costs associated with persuading existing customers to upgrade.
17. It is readily apparent that BT is fully cognisant of this opportunity and is acting to capitalise on it. Indeed, the recognition of this fact is the key driver of Ofcom's development of the VULA margin test, which seeks to constrain BT's ability to leverage its significant market power at the upstream level into the retail supply of high speed broadband services.
18. Since fibre-based broadband services were introduced by BT in January 2010, BT has achieved a very high share of sales of those services to consumers. BT is retailing at least 74%¹¹ of all SFBB services on its fibre network compared to 40% for all broadband connections on the Openreach network¹²; BT's rate of acquisition of superfast broadband subscribers shows no sign of slowing down and BT itself is forecasting a large share of new retail high speed broadband subscribers.^{13,14}

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¹⁰ Sky estimates that BT Consumer earns negative incremental margins as a result of upgrading standard broadband customers to superfast broadband. However, when considered from the point of view of BT as a whole, upgrading customers is profitable, and has a short payback period.

¹¹ See first bullet point, paragraph 3.55, Ofcom's 'Statement on the Approach to the VULA margin', 19 March 2015. (http://stakeholders.ofcom.org.uk/binaries/consultations/VULA-margin/statement/VULA_margin_final_statement.pdf.)

¹² See Table 16, summary of residential and small business broadband connections in Q4 2014, Telecommunications market data tables, Q4 2014. (http://stakeholders.ofcom.org.uk/binaries/research/cmr/telecoms/Q4_2014_telecoms_tables.pdf.)

¹³ See second bullet point, paragraph 3.55, Ofcom's 'Statement on the Approach to the VULA margin', 19 March 2015. (http://stakeholders.ofcom.org.uk/binaries/consultations/VULA-margin/statement/VULA_margin_final_statement.pdf.)

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19. The fact that BT is using the transition to high speed broadband services and its vertical integration to re-establish a strong position at the retail level of the market is reinforced by Sky's experience in seeking to negotiate with Openreach in relation to upgrading customers to superfast broadband. Sky has approached Openreach on a number of occasions with proposals for a deal which would provide Sky with terms that provided it with higher returns from upgrading customers to superfast broadband, in return for significant guaranteed volumes of superfast broadband customers for Openreach. In Sky's view, such an offer would be of considerable interest to Openreach – if Openreach operated on a standalone basis – enabling it to drive significant additional volumes of subscribers in order to earn a return on its investments in superfast broadband. However, Openreach has failed entirely to engage with those offers.

The VULA margin test will not prevent BT from re-establishing a high market share

- 20. The VULA margin test was introduced by Ofcom in 2015 to address the concerns set out above. However, the test will not prevent BT from establishing a strong market position at the retail level. BT currently passes the VULA margin test. Accordingly, it is able to maintain its current pricing strategy, which enables it to dominate upgrades of broadband customers from standard to fibre-based broadband services, without breaching this test.¹⁵
- 21. The VULA margin test is also highly complex and offers BT significant scope for passing it via changes in its accounting practices (e.g., by reallocating common costs among different services). It is likely to get more complex, and afford BT even greater scope for mitigating any real impact on its business, as BT expands the scope of products that it bundles with superfast broadband services in future (particularly mobile services).

Impact on investment in alternative infrastructure

22. As set out above, firms' ability to invest in rival infrastructure to BT's has been a key contributory factor to the positive outcomes delivered in the UK telecoms sector over the past ten years. In relation to high speed broadband services, Sky and others have been exploring in detail the possibility of investing in 'last mile' fibre networks in the UK.¹⁶ These

¹⁵ The VULA margin test examines whether cohorts of new superfast broadband customers have a positive net present value to BT Consumer. BT is able to pass this test while at the same time: (i) returns to BT as a whole from upgrading superfast broadband subscribers are significantly higher (given that the wholesale charges included in the test are 'wooden dollars' from an overall BT Group point of view), and (ii) returns to BT from upgrading superfast broadband customers far exceed those earned by competing CPs.

¹⁶ Sky is involved in the CityFibre joint venture project with TalkTalk which is rolling out a fibre to the premise network in York 

could provide direct infrastructure competition to BT in the last mile, and have the potential to provide Gigabit broadband services to consumers and businesses. The benefits of such investment cannot be underestimated: it would provide strong, sustainable competition at a deep level in the sector.

23. The economics of such network overbuilding, however, are challenging. They depend to a considerable extent on the ability of the alternative network provider to aggregate sufficient demand to justify the substantial costs of the investment. The ability to aggregate sufficient demand will depend on which broadband providers commit to use the alternative network providers infrastructure and on the size of their respective broadband subscriber bases. Whilst an investor in a new network might also make assumptions about the ability of ISPs using the new networks to aggregate additional demand by growing their market shares and winning subscribers away from other operators using Openreach and/or Virgin Media, this will clearly be more speculative. Investment cases that rely on heroic assumptions about future consumer switching may not be fundable.
24. In this context, BT's vertical integration is a significant impediment to there being sufficient numbers of contestable customers to support alternative network infrastructure development. Virgin Media already controls a significant share of customers, and Openreach's integration with BT Consumer means that an additional c.7.5 million broadband customers are difficult for other operators to compete for. If BT Consumer was independent of Openreach there would be greater prospect of it purchasing network services for the provision of superfast broadband services to end-users from suppliers other than Openreach in areas in which alternative infrastructure had been rolled out.
25. If BT Consumer is successful in building a substantial market share in the downstream market (as described above), and is able to increase its downstream market share at the expense of other CPs, then the potential for third party infrastructure investors to underpin any business case based on the combined existing customer base of Sky and TalkTalk will be reduced. The fibre roll-out which is being trialled in York with the potential for success to trigger additional roll-out will no longer have any prospect of being viable if Sky and TalkTalk's market share is significantly reduced.

(ii) The quality of service delivered by Openreach

26. Openreach owns and operates a key national strategic asset – the UK's ubiquitous last mile fixed line telecommunications network, the network of copper lines into homes and business premises. This network is old; most of it was laid many years ago. Its reliability is therefore critically dependent on effective maintenance.
27. In addition to this critical role, Openreach is also responsible for delivery of a wide range of important services in relation to the last mile access network, such as repairing faults, providing new lines and handling switching among different CPs operating on its network. These services impact the lives of millions of consumers and businesses every year.
28. Openreach does not deliver an adequate quality of service. This problem has two main dimensions: (i) in terms of the quality of services delivered to consumers, and (ii) in terms of the responsiveness to the requirements of CPs as customers of Openreach. As well as adversely affecting consumers directly, these service quality issues have an adverse effect on competition by inhibiting consumer switching and market entry.

The quality of services delivered to consumers

29. The quality of service delivered by Openreach has a significant impact on UK consumers' experiences of fixed line telecommunication services. Issues such as line faults, time taken to repair faults, appointment times, whether or not appointments are met, and the time

taken to install new lines, directly affect users of the BT network, whether they are BT customers or customers of another (non-cable) fixed line CP.

30. In the past five years Openreach's performance in terms of service delivery has been sub-standard, both in absolute and relative terms. It has underperformed in relation to the quality of service delivered to end-users across a wide range of metrics. In absolute terms, its performance has deteriorated in many areas, and it continually fails to hit targets for service delivery. In relative terms, its performance falls far short of the types of levels of service delivered by firms operating in competitive sectors of the economy which condition consumers' expectations of what levels of service firms should be able to deliver in the twenty first century.
31. **Annex 1** of this submission provides evidence on the scale and scope of Openreach service quality problems, focusing on the following areas: provision of working new lines, faults, and fault repairs. The following sub-sections summarise the evidence in relation to these problems.

Provision of new lines

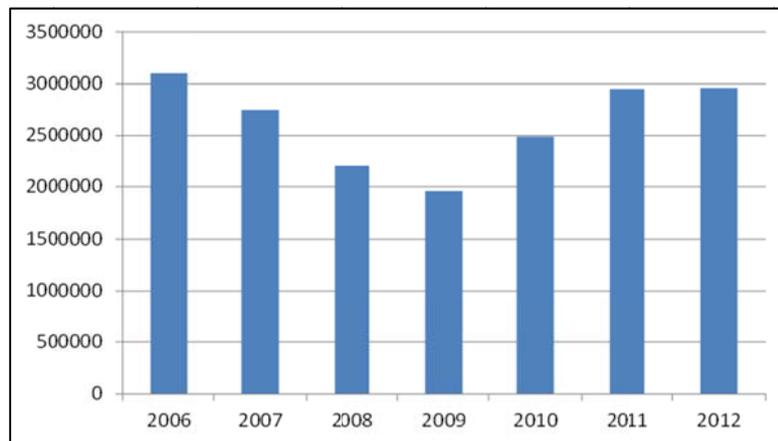
32. There are numerous problems associated with the provision of new lines by Openreach.
33. Prior to the installation of a new line, Sky must apply to Openreach for an installation appointment date. This process is highly unsatisfactory. Each month Openreach rejects a substantial number of installation dates chosen by Sky (from dates initially stated as being available by Openreach) - on average around 5,000 instances a month - and, even once a date has been agreed, the date is often moved to a later date on a significant number of occasions (on average around 12,500 times a month). This often causes significant inconvenience to consumers: they are provided with a date for an installation to occur, only to have that date moved a later point in time.
34. Openreach's target time for installation of a new line is 12 working days, which itself is an unacceptably long target. Sky aims to complete new installations of satellite dishes in 5 working days. Over the past 12 months over 620,000 customers switching to Sky had to wait ten calendar days or longer for a line to be installed, and large numbers of installations take far longer than this; over 25,000 customers had to wait more than 45 calendar days. Often, long waits for a new line cause customers to drop out of the switching process, and consumer survey evidence indicates that the time taken for a switch to be completed is a key measure of consumer satisfaction with switching processes. Accordingly, these long delays for new lines to be installed are likely to give rise to considerable consumer detriment and dissatisfaction and to reduce competition by chilling incentives for consumers to switch suppliers.
35. Openreach engineers fail to turn up for large numbers of appointments or fail to complete line installations. For example, in the year to February 2015 on average Openreach missed over 500 appointments to install new lines ordered by Sky customers every month, and when an appointment is finally met, a further 4,000 jobs per month were not completed. These failures are enormously burdensome for consumers - often involving wasted days off work and significant inconvenience.
36. Finally, a significant number of new lines develop faults soon after being installed. In the year to March 2015 an average of [REDACTED] new installations for Sky customers each month developed a fault within a week of installation, and a further [REDACTED] new installations each month developed a fault between [REDACTED] and [REDACTED] days after installation. Again, this problem adversely affects rival CPs' ability to compete, and causes significant consumer inconvenience and detriment.

37. It is particularly important for Ofcom to note that these figures relate only to customers switching to Sky, and do not include the significant number of customers that require a new line when they switch to BT Consumer or TalkTalk. Accordingly, the total number of consumers affected by each of these issues every month is a multiple of the figures set out above. Ofcom is well placed to investigate and understand the total impact of Openreach's poor quality of service on customers.

Faults and fault repairs

38. Analysis undertaken by Frontier Economics indicates that the number of faults on the Openreach network declined significantly between 2006-2009. After 2009, however, Frontier's report shows that fault rates increased again, to around their previous level. In 2012, which is the last year for which reliable data is publicly available, there were around 3 million faults on customers' lines. This level of faults on the network is unacceptably high. Such faults cause substantial consumer detriment and, in the case of small firms, can have a significant impact on their livelihood.

Figure 3
Annual number of faults



Source: Frontier Economics report

39. Moreover, Openreach's performance in relation to target times to fix faults is consistently poor. It is consistently below the targets set out in agreements with CPs like Sky, and there is no indication of any improvement over time. Examples of Openreach's failure to meet fault repair targets are shown in Figures 4 and 5¹⁷.

¹⁷ Figures 4 and 5 are charts provided by the Office of the Telecoms Adjudicator, based on data provided by Openreach. (Available at: <http://www.offta.org.uk/charts.htm>.)

Figure 4
Repairs of LLU lines against target

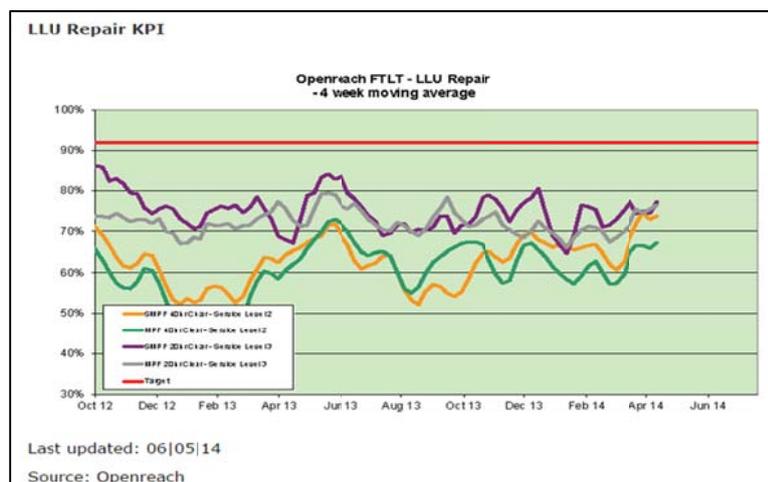
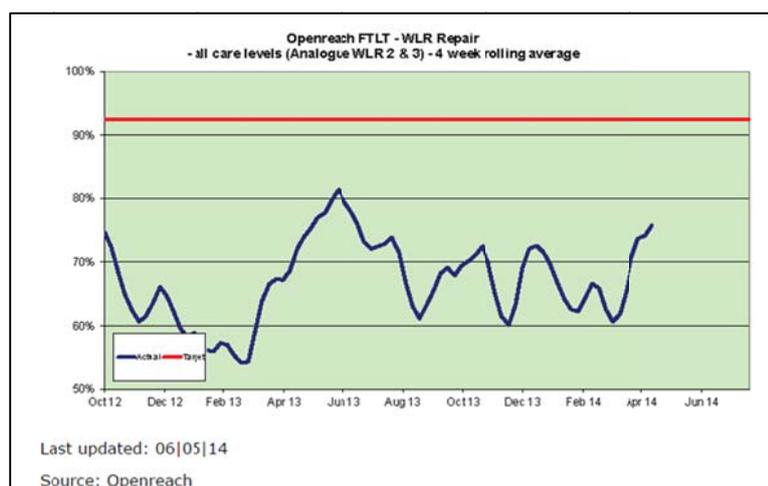


Figure 5
Repairs of WLR lines against target



40. Figures 4 and 5 show the percentage of repairs of LLU and WLR lines that are completed within target repair times for the contracted Service Maintenance Level (SML). For example, in the case of WLR lines with contracted SML 2, agreements specify that faults will be repaired on the next working day, and Openreach is set an indicative target by the Office of the Telecoms Adjudicator of 92% of repairs being completed within this time. The figures show that actual performance is far below target. In the case of WLR lines, Figure 5 shows that on average faults were repaired within the target timescale less than 70% of the time since 2012. Moreover, Figures 4 and 5 show no sign of the gap between target and actual performance narrowing.
41. It is evident that one of the key causes of the service quality problem is that, with stable revenues guaranteed by Openreach's market position, cutting costs – both capital and operating expenditure – has provided a source of profit that can be used to finance other activities within the overall Group's business¹⁸, even if such cuts have the result of reducing service quality and the overall reliability of the copper network.

¹⁸ This includes substantial resources that have been devoted to shoring up BT Group financial performance after the poor performance of BT's Global Services division. (See further Frontier Economics' report attached at Annex 4.)

42. Furthermore, as part of the large BT Group, Openreach must compete for resources, capital budgets, and management time and focus – often against activities with potentially higher returns to BT Group – or activities considered to have greater strategic importance to BT such as its re-entry into mobile services.
43. The quality of service problem was recognised clearly in Ofcom’s last Fixed Access Market Review. The result was the introduction of regulation of the quality of service delivered by Openreach for the first time. Whilst this new regulation was sorely needed, and welcome, it covered only three service quality elements¹⁹, the targets set were undemanding²⁰, and there is little certainty that Openreach would suffer any significant consequences from not meeting those targets.
44. Quality of service was also an important issue in Ofcom’s first strategic review. It was anticipated however, that the formation of Openreach and the introduction of the ‘equivalence of input’ requirement would address this issue. It was anticipated that Openreach would have strong incentives to deliver a high quality of service to its retail business and that the requirement for Openreach to operate in a non-discriminatory manner would mean that other CPs benefited from that incentive. However, that expectation has not been fulfilled for two reasons. First, in some instances BT’s other divisions use different inputs provided by Openreach to those used by other competing CPs. For example, in order to retail broadband and telephony to its subscribers, BT Consumer relies upon WLR and SMPF (‘shared’ LLU) whereas its main retail competitors, Sky and TalkTalk, largely use MPF (‘full’ LLU).
45. Second, as discussed further below, inadequate Openreach service quality disadvantages other CPs more than BT Consumer.

The impact of poor quality of service on competition

46. Whilst many consumers and businesses suffer directly as a result of Openreach’s poor quality of service, it also has a further important impact, via its effect on switching among telecommunications retailers operating on the Openreach network and thereby on retail competition.
47. The ability easily and quickly to switch supplier is a key determinant of the effectiveness of competition. It is generally the case that a market with significant barriers to switching will be less competitive than a market in which switching is straightforward.
48. Switching suppliers operating on BT’s network (*i.e.*, principally among BT Consumer, Sky, TalkTalk and EE) often requires Openreach to undertake additional work, such as the installation of a new line. Lengthy waits for such work to be undertaken causes many consumers to abandon their intended switch. For the many consumers who have a poor experience during their switch – including long waits, missed appointments, new services not working or becoming faulty soon after installation – they will be deterred from switching again in future, and deter others from switching by relating the poor experience that they have had.
49. Accordingly, poor Openreach quality of service dampens consumer switching and, thereby, competition in the market. It is important to note, however, that even if service quality is uniformly poor for all CPs operating on the Openreach network, including BT Consumer, BT

¹⁹ These are (i) appointment lead times for new line installations, (ii) provision appointments being completed by the provision date, and (iii) fault repairs being completed within SLA timescales.

²⁰ For example for two of the three regulated service quality elements the targets for 2016/17 are set at around the levels achieved in 2011/12, which were significantly below levels that Openreach has achieved before then.

tends to benefit. This is for two reasons. First, BT continues to have the largest customer base for telecommunications services in the UK. As a result, it has more to gain from dampened switching than other CPs. Second, there continues to be a perception on the part of consumers that they are less likely to experience problems with their service if they are BT customers, given that it is BT which owns and operates the network.

50. Poor service quality can also have an impact on competition by deterring new entry. [REDACTED]

Openreach's behaviour as a supplier

51. Openreach is a supplier of important services to a range of large communications providers, including Sky. Ofcom's 2005 Telecommunications Statement referred to the hope that the new BT entity would serve operators with "*zeal, efficiency and enthusiasm*"²¹.
52. Sky is a sophisticated purchaser of services from other companies, and has a great deal of experience in dealing with suppliers, providing a strong baseline from which to compare our experience in dealing with Openreach. Sky spends over [REDACTED] million per annum purchasing products and services from Openreach, and expects a commensurate level of responsiveness in relation to its requirements. Sky has, however, often been disappointed in this expectation – particularly in the past. Openreach has been slow to respond to requests for things to be done differently, or for new products and services to be developed. In Sky's view, Ofcom's hope in 2005 that Openreach might become a dynamic organisation focused on meeting the demands of its immediate customers has not been realised.²²
53. We have set out a number of examples of Sky's past dealings with Openreach in this regard in **Annex 1**. These include the example set out in the box below, in relation to Sky's request that Openreach provide it with data from Pair Quality Tests ("PQTs").

Sky's request to Openreach to receive data from PQTs

When Openreach engineers run a PQT (a test on the copper line) at end-users premises during fault visits they receive technical data that details how the line is performing against the required technical standard. These test results are not passed to the CP.

The data collected by Openreach could be of use to CP and could be used to reduce repeat fault related visits (and their associated costs). Consumers could then benefit from both reduced fault rates, and lower prices as a result of cost efficiency.

Sky submitted a SoR requesting that PQT results be shared with CPs in November 2012.

Since then the development process has been extremely protracted with the SoR now being "in development" for two and a half years. This demonstrates a lack of responsiveness to SoRs that could increase efficiency, reduce the costs incurred by both Openreach and CPs, and improve consumers' experiences.

²¹ Page 2, 'Telecommunications Statement', Ofcom, June 2005. Available at: http://stakeholders.ofcom.org.uk/binaries/consultations/telecoms_p2/statement/main.pdf.

²² [REDACTED]

54. In part, Openreach's approach to proposals for change from other CPs appears to be influenced by the conflict of interest that lies at the heart of BT's ownership of Openreach. However many processes are put in place, it is impossible for Openreach to fail to consider that dealing with firms like Sky and TalkTalk with "*zeal, efficiency and enthusiasm*" assists BT's competitors. Indeed, the greater the responsiveness of Openreach to other firms' requirements, the greater the potential overall detriment to BT.

Service quality issues more generally

55. The focus of the discussion above in relation to the quality of service delivered by Openreach is on a specific set of services of greatest relevance to Sky. It is evident, however, that other users of Openreach services face similar quality of service problems. For example, responses to Ofcom's Business Connectivity Market Review ("BCMR") abound with complaints about quality of service issues that ultimately lie with Openreach. Vodafone's submission in response to the BCMR call for inputs, for example, states:

*"Despite high profitability, service levels, innovation and responsiveness to customer need all remain woefully poor."*²³

56. Vodafone's submission goes on to argue that the BCMR should:

*"begin... with a proper review of BT's processes, interfaces and interactions. Vodafone is strongly of the view that these processes are not fit for purpose and are the underlying cause of many of the poor service outcomes we can see today. Simply pushing harder on a fundamentally broken process is unlikely to lead to the step-change improvements the industry requires."*²⁴

57. Finally, Vodafone states:

*"BT's service has been inconsistent for an extended period. This is also the second time in recent years that prolonged service failure has occurred. At the time of writing BT has just announced extension of its fifth recovery plan following failure of recovery within the set times scales of the plan. This is unacceptable for us and our customers."*²⁵

58. It is evident therefore, that Openreach service quality problems are pervasive and persistent, and affect substantial numbers of end-users.
59. Sky recognises that Ofcom has identified quality of service issues as an important part of its strategic review. However, Sky considers that the breadth and pervasive nature of these issues, together with their impact on competition, are key reasons why Ofcom should make a MIR to the CMA.

The test for a market investigation reference is met

60. The issue of whether to make a MIR to the then Competition Commission under the Enterprise Act 2002 ("EA02") was a central issue in Ofcom's first strategic review of telecommunications services. Ultimately, Ofcom decided it would be more appropriate to accept undertakings from BT in lieu of making such a reference, under which BT agreed (among other things) to the establishment of Openreach as a functionally separate division.

²³ Paragraph 1, Vodafone's response to Ofcom's call for inputs in the BCMR, June 2014. (<http://stakeholders.ofcom.org.uk/binaries/consultations/business-connectivity-market-review/responses/Vodafone.pdf>.)

²⁴ Page 5, *ibid*.

²⁵ *ibid*.

Those undertakings remain a central part of the telecommunications regulatory landscape in the UK.

61. As part of the current strategic review, Ofcom should again consider whether to make a MIR to the CMA. Unlike in 2005, many operators now consider that there are compelling arguments in favour of such a reference.
62. Ofcom may make MIRs to the CMA under section 131 EA02 relating to commercial activities connected with communications matters. Section 131 EA02 provides that:

“[Ofcom] may...make a reference to the CMA if [it] has reasonable grounds for suspecting that any feature, or combination of features, of a market in the United Kingdom for goods or services prevents, restricts or distorts competition in connection with the supply or acquisition of any goods or services in the United Kingdom or a part of the United Kingdom”.
63. As explained above, significant problems have developed in the UK telecoms sector since the last TSR. These stem from a combination of two market features in particular: (i) BT’s enduring upstream market power, associated with its ownership of long-lived, ubiquitous telecommunications infrastructure, and (ii) BT’s vertical integration.
64. These features have an adverse effect on competition in the provision of fibre-based broadband services and backhaul services in the UK, and with the transition to fibre-based broadband there is also a significant risk of diminishing retail competition over time, likely to result in poorer outcomes for consumers in terms of reduced choice and quality of services, and higher pricing. These features and the adverse effects on competition arising from them clearly meet the statutory “reasonable grounds to suspect” test for a MIR.
65. The additional administrative criteria as to when to make a reference set out in CMA’s guidance on MIRs²⁶ (which was followed by Ofcom when it made a MIR in 2010) are that:
 - a. sectoral or competition law powers at Ofcom’s disposal will not be sufficient to address the concerns identified;
 - b. undertakings in lieu of a MIR are not appropriate;
 - c. the scale of the problems identified clearly merit a MIR; and
 - d. there is a reasonable chance that appropriate remedies will be available.
66. The guidance criteria are also met:
 - a. Standard competition law powers would be unable to remedy the problems discussed above; they could not reasonably be considered to be breaches of Chapters 1 or 2 of the Competition Act 1998. In relation to Ofcom’s sectoral powers, it is notable that the problems set out above have emerged notwithstanding the application of those powers. Ever more complex behavioural regulation cannot fundamentally address BT’s strong incentives to favour its downstream divisions due to its ownership of Openreach;
 - b. In principle, there may be undertakings which BT could give which would obviate the need for a MIR. For example, BT might consider that it is appropriate voluntarily to divest Openreach, and undertake to Ofcom to do this. Such undertakings should be

²⁶ ‘Market Investigation References – Guidance about the making of references under Part 4 of the Enterprise Act’, OFT 511. (<https://www.gov.uk/government/publications/market-investigation-references>.)

explored in the following months as part of Ofcom's review;

- c. The scale of the issues set out above justifies a MIR. The size and proportion of the markets affected are significant and the features giving rise to the problems discussed above are persistent. As explained above, the erosion of competition in broadband services has potentially far-reaching consequences to consumers and businesses, and to the UK's economic prospects more generally, whilst the ongoing problems in relation to Openreach's quality of service are persistent, of a substantial scale and affect large numbers of consumers and businesses every year; and
 - d. It is also, in Sky's view, plain that appropriate remedies would be available to address the issues set out above. The set of remedies available to the CMA under the Enterprise Act is wide, including the power to order divestments.
67. Accordingly, both the statutory test and the administrative criteria for making a MIR are met.
68. It is crucial that Ofcom makes a MIR swiftly. Sky considers that Ofcom should seek to consult on a MIR in its proposed second phase document in the Strategic Review planned for January 2016. The issues raised are of enormous importance to the economy as a whole. Openreach provides the key inputs to the UK's digital communications infrastructure to enable a thriving and competitive communications sector. This is essential to support the growing digital economy and affects the lives of millions of consumers every year. A process that could involve a lengthy inquiry by Ofcom – potentially taking two years – followed by a further lengthy inquiry by the CMA, itself potentially taking a further two years, would be highly undesirable. In the fast-moving world of the communications sector, and in light of the current transition to superfast broadband services, this potential timescale for action would be far too long.
69. It is also important that Ofcom does not seek to determine whether or not a MIR is appropriate by reference to whether or not any potential outcomes from such an inquiry (including, for example, structural separation of Openreach) would, or would not, be proportionate. The MIR regime involves a two phase process. The first step is for Ofcom to satisfy itself that there are reasonable grounds to suspect that a feature or combination of features of the telecommunications markets distorts competition – a test that is clearly met – and whether it is appropriate to make a MIR by reference to the guidance criteria (which are also met). This is intended to comprise a 'high-level' investigation, sufficient to meet the "reasonable grounds to suspect" test, and the administrative criteria.
70. Ofcom is *not* required to reach firm conclusions as to the existence or extent of any competition problems, nor, in particular, the efficacy or proportionality of any potential remedies. Following a reference, *it is for the CMA* (and not Ofcom) to then consider the issues in depth and to determine whether and to what extent the features identified distort competition, and what remedial action may be required to address this.
71. Making a MIR reference could not be considered to reflect adversely on Ofcom's competence or, indeed, in any other respect. On the contrary, it would be a bold but entirely reasonable step, in keeping with the pioneering but effective nature of Ofcom's approach to telecommunications regulation. Ofcom's expertise in relation to telecommunications matters is well established, and Ofcom would be a natural contributor to a market investigation by the CMA.

The CMA would be well placed to consider the merits of establishment of Openreach as an independent company, if it found an AEC

72. One of the key reasons that it is important for Ofcom to make a MIR to the CMA is that if, as a result of its inquiry, the CMA identifies an adverse effect on competition ("AEC") associated with BT's vertical integration, it is in a position to consider the divestment of

Openreach from the rest of BT as a remedy to that AEC. The CMA has useful cross-sector experience in relation to such matters, for example having mandated structural separation in the airports, aggregates and health care sectors in the recent past, as well as considerable specific experience in relation to telecommunications matters arising from its role in price control appeals.

73. In Sky's view, the establishment of Openreach as an independent company would be a proportionate and effective way of addressing the significant problems described above. We have set out the key reasons for this view in **Annex 2**. Nevertheless, we reiterate our view that it would not be appropriate for Ofcom to determine whether or not to make a MIR based on its view on this issue. The key issue for Ofcom to determine is whether or not the conditions for a MIR are met. Sky submits that they are met in this case and that Ofcom should move to consulting on a MIR as expeditiously as possible.

Sky

June 2015

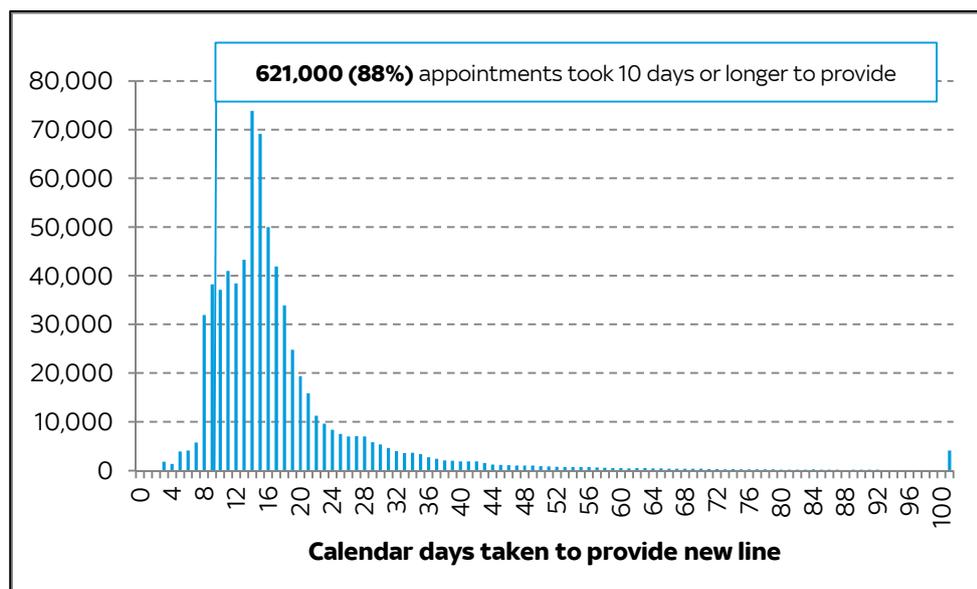
Annex 1
Evidence on Openreach’s quality of service

- A.1 This annex sets out evidence of the poor quality of service Sky has experienced as a customer of Openreach, as well as service quality metrics at the market level. Specifically, it provides evidence of:
- a. the poor experience of Sky as a customer with respect to service provision;
 - b. the performance of Openreach with respect to faults rates and repair at the market level; and
 - c. examples of Openreach’s responsiveness to requests by CPs for new products or services, or for amendments to existing products.

(i) Service provision

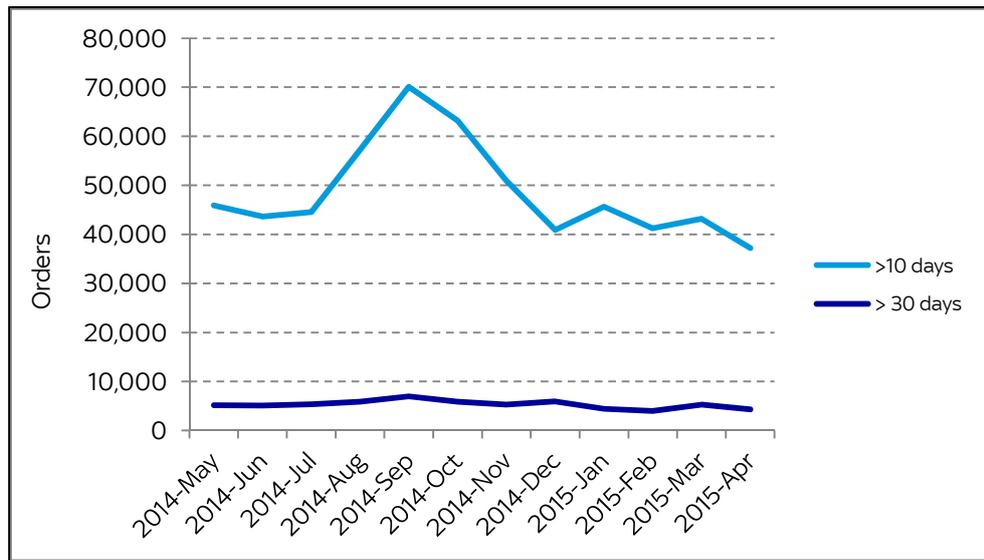
- A.2 In the past 12 months, the vast majority of new line provides, which require an Openreach engineer to attend a customer premise took 10 calendar days or longer to provide (see Figure A1). A significant volume (64,000) took longer than 30 days.
- A.3 This sub-standard level of service quality has persisted over time, as shown in Figure A2.

Figure A1: Sky new line provides (WLR & MPF) – last 12 months²⁷



²⁷ Source: internal Sky provisioning data.

Figure A2: Sky monthly new line provides taking longer than 10 days and 30 days²⁸

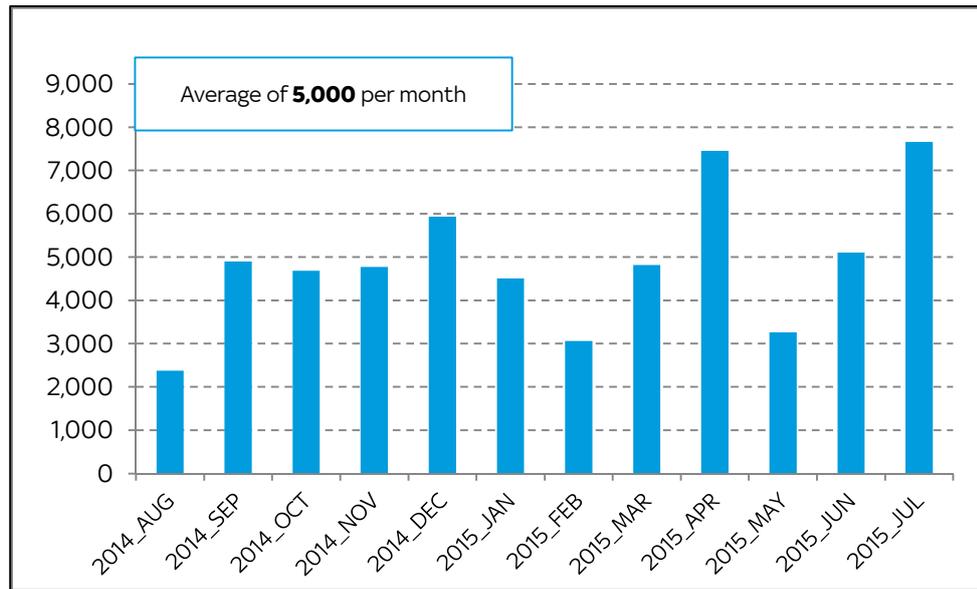


- A.4 Sky requests a provision date from Openreach as part of the new line order, stating when the customer has requested their service be provided. This date is selected from a list of Openreach’s available dates (supplied through the ‘availability checker’) at the point of sale.
- A.5 Since August 2014, for 5,000 orders per month, the date within the order confirmation (on which Openreach promise to deliver the service - the “Contractually Committed Date”) is different from the requested date (see Figure A3).²⁹

²⁸ Source: internal Sky provisioning data.

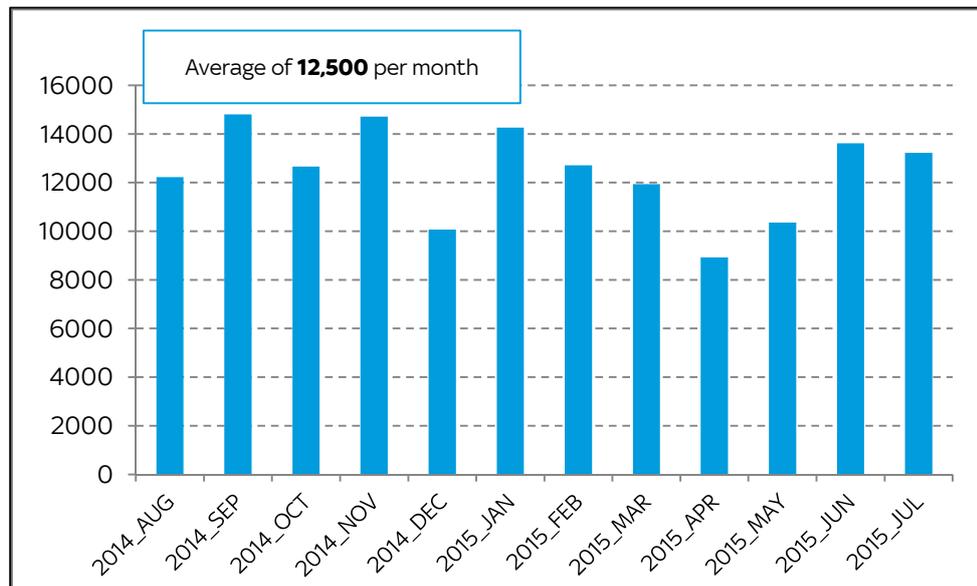
²⁹ This includes an unknown proportion of orders where the customer has amended their requested date.

Figure A3: Orders where “Contractually Committed Date” does not match Sky requested date³⁰



A.6 Furthermore, once Openreach has provided a “Contractually Committed Date”, 12,500 orders per month, on average, are not delivered on this date (see Figure A4).

Figure A4: Sky orders not delivered on “Contractually Committed Date”³¹

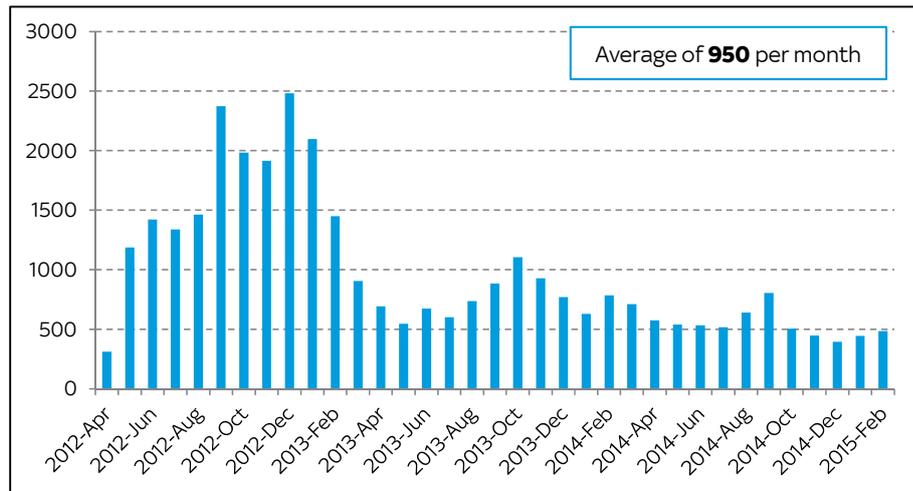


A.7 Since May 2012, Openreach engineers have missed 950 Sky provisioning appointments per month, on average (see Figure A5).

³⁰ Source: internal Sky provisioning data.

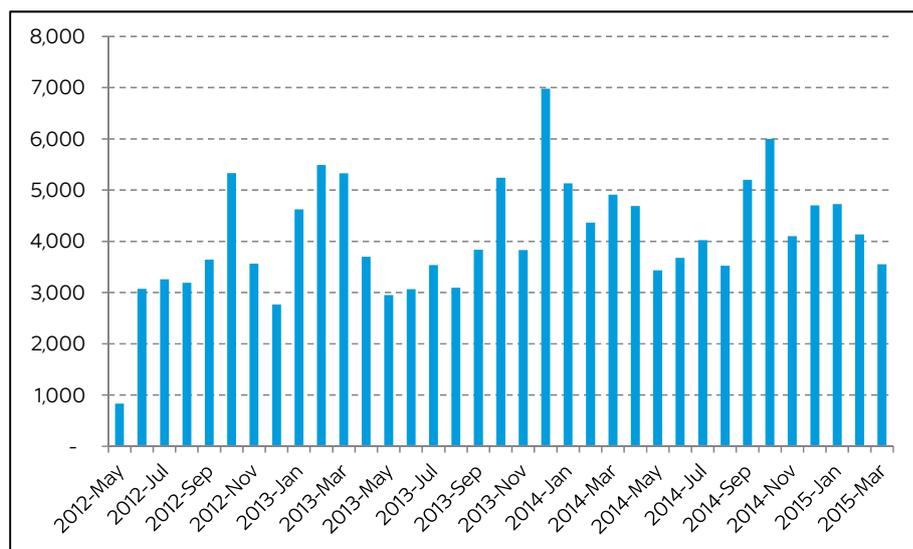
³¹ Source: internal Sky provisioning data.

Figure A5: Sky provisioning appointments missed by Openreach³²



A.8 Even where an Openreach engineer has turned up to a provisioning appointment, 4,000 appointments per month are designated as “furthered” (see Figure A6). This refers to a situation where the Openreach engineer was unable to install a working line and the customer continues to have limited or no access to broadband and/or line rental services.

Figure A6: Furthered (unresolved) Sky provision appointments³³



A.9 Finally, once working lines have been installed █████ Sky customers per month report faults within █████ days after service activation, with an additional █████ customers reporting a fault within the first █████ days after activation. In the last █████ months these types of faults have affected █████ Sky customers.

(ii) Fault rates and repair

A.10 As set out in Figure 3, faults on copper lines increased by 50% between 2009 and 2012. Fault rates at the market level on MPF products have also continued to increase in the past 3 years (see Figures A7 and A8).

³² Source: internal Sky provisioning data.

³³ Source: internal Sky provisioning data.

Figure A7: Market level early life failure weekly rate trends, Apr 11 – Jan 14³⁴

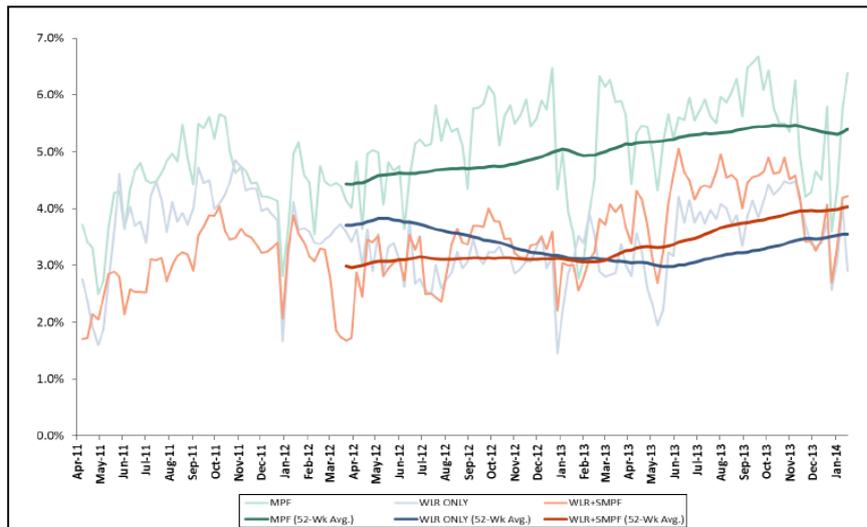
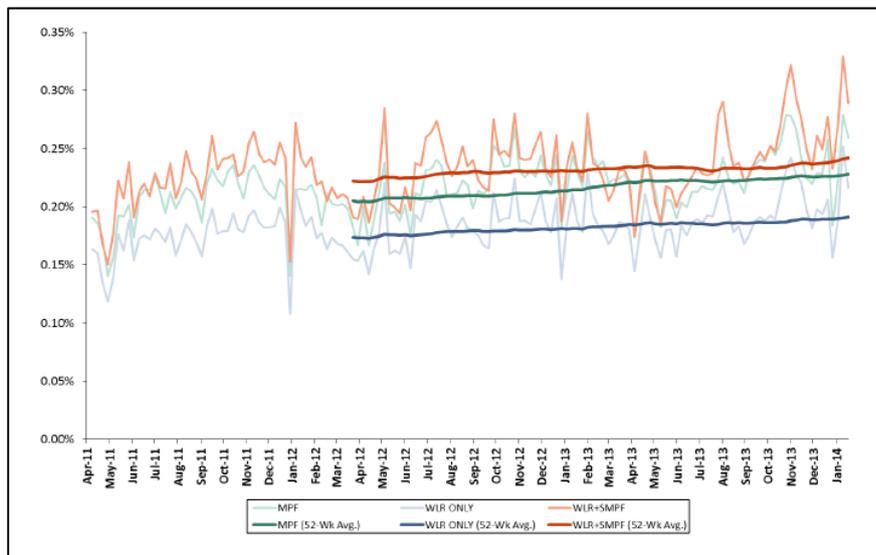


Figure A8: Market level weekly fault rate trends, Apr 11 – Jan 14³⁵



A.11 Furthermore, Openreach rarely hits the repair targets measured by the Office of the Telecoms Adjudicator for LLU or WLR repair (see Figures A9 and A10). These targets (92% for LLU and WLR repair) measure how often Openreach repairs a fault within the “Service Maintenance Level” associated with the specific product (for example, next working day for Service Maintenance Level 2).

³⁴ Ofcom 2014 Fixed Access Market Review, Final Statement, Annex 21 p.30.

³⁵ Ofcom 2014 Fixed Access Market Review, Final Statement, Annex 21 p.24.

Figure A9: Openreach performance – LLU Repair³⁶

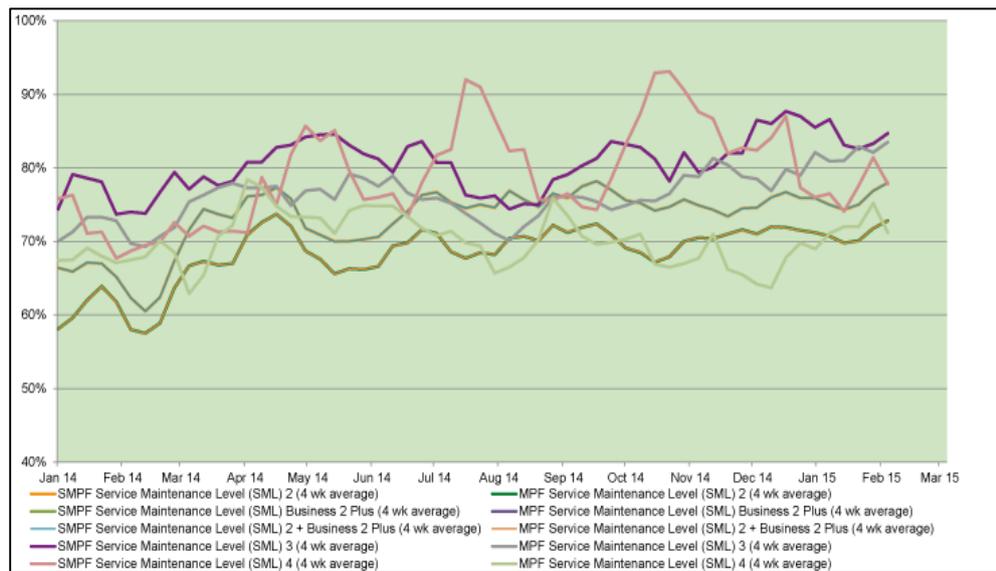
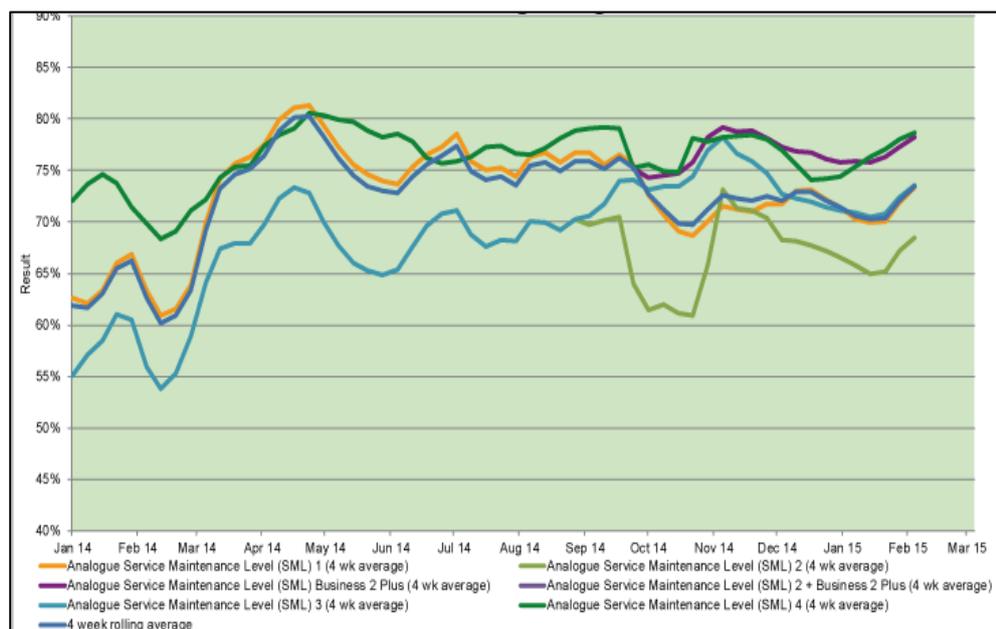


Figure A10: Openreach performance – WLR Repair³⁷



(iii) Examples of Openreach’s responsiveness to Statements of Requirement

A.12 CPs are able to request new products or product amendments by raising Statements of Requirement (“SoRs”) with Openreach. On the basis of the SoR statistics available to Sky, it is evident that a greater proportion of the SoRs generated from within BT have been implemented (often more quickly) than those submitted by other parties (see Table A1).

³⁶ Office of the Telecoms Adjudicator. Available at: <http://www.offta.org.uk/charts.htm>. OTA target of 92% added by Sky.

³⁷ Office of the Telecoms Adjudicator. Available at: <http://www.offta.org.uk/charts.htm>. OTA target of 92% added by Sky.

Table A1: Proportion of submitted SoRs implemented by Openreach³⁸

SoRs submitted by:	Number of SoRs submitted	SoRs delivered / in development	% of SoRs delivered / in development that were delivered within 1 year	% of SoRs delivered / in development that were delivered within 2 years
BT Group	169	87 (51%)	40%	75%
Non-BT Group	145	35 (24%)	34%	69%

- A.13 This could suggest that Openreach favours BT lines of business within the SoR process.
- A.14 It is Sky's view that, when considering certain SoRs from external CPs, Openreach has been slow to respond and carry out necessary diligence, and has rejected requests that could increase efficiency and reduce costs across the network. This section provides examples of the difficulties that Sky and other CPs have faced in working with Openreach through the SoR process.

Detailed copper network information / g.fast

- A.15 Openreach provides no detailed information to CPs on the "last leg" of the copper network, for example information on which postcodes or how many customers are connected to certain Distribution Points (DPs), or the length of the drop wire from DP to customer premises. CPs therefore cannot review the data needed to assess new broadband technologies or deployment options.
- A.16 Sky presented to Ofcom in June 2013 on NGA opportunities, noting at the time that g.fast looked promising, but that since detailed copper network information was not available, it was not possible to either model deployment, or test the technology on the BT network.
- A.17 Sky (supported by Vodafone) formally submitted a SoR requesting detailed copper network information in March 2013. It was rejected in November 2013 as Openreach stated that there was no commercial benefit for it in gathering and disseminating this data to CPs. BT then announced its intention to roll out g.fast in January 2015.
- A.18 Having rejected Sky's attempts to instigate a conversation around technology standards, or to allow Sky to undertake its own analysis of g.fast opportunities, BT has announced a g.fast trial, and a push to update the UK copper network standard to permit g.fast, exactly what Sky had been prevented from doing by Openreach previously.
- A.19 Sky has since requested to Openreach to have a deeper involvement in its proposed trial – testing its own g.fast units and having sight of installation processes and operational data, but was told this was unnecessary to trial BT's managed product. Sky is also leading a debate on the benefits of having passive EoL points and products defined for g.fast deployments before starting work on updating the copper network standard (as is standard practice) but BT refuses to discuss this within the industry body tasked with setting standards (the NICC DSL Task Group).
- A.20 It appears BT is taking this approach so that – as was the case with FTTC – once it has a head start in engineering knowledge and a public intent to deploy, it can lobby Ofcom for further dispensations from the EoL rule, and gain an unassailable lead in deployments by monopolising prime locations.

³⁸ Source: Openreach Statement of Requirement tracker. Includes all shared SoRs and Sky SoRs marked as non-shared. Sky understands that other non-shared SoRs represent a very small minority.

Single Jumper MPF

- A.21 MPF services currently use two cables within the exchange to connect to BT line testing equipment. TalkTalk, having installed its own test equipment, is able to test lines itself, and raised a SoR for Single Jumper MPF, using fewer cables and bypassing BT equipment. This product could have benefits to consumers with more competitive broadband pricing, as a result of cost efficiency.
- A.22 Although it was apparent that Single Jumpering was more efficient several years before TTG raised the SoR, Openreach rejected the proposal. This is an example of Openreach failing to implement a more efficient, cost effective design for a product, perhaps because BT Retail does not consume MPF in any material quantity.

Daily publication of tie pair reconciliation report

- A.23 CPs incur charges when they wish to re-use an LLU equipment port which has an associated Left in Jumper³⁹ ("LIJ"). There is one provisioning scenario where a CP's LIJ is removed but no immediate notification is provided to that CP. It can be up to a week before the CP is aware that its LLU equipment port is now "free".
- A.24 If the CP were to receive more prompt notification that the jumper had been removed, the CP could avoid some LIJ removal costs. Sky formally submitted a SoR in July 2014, requesting daily publication of tie pair reconciliation report.
- A.25 Progress on this development has been extremely protracted. Openreach is still undertaking its feasibility study and has not yet been able to give a firm view on whether it will undertake the development or not. The SoR guidelines are that feasibility analysis should take up to 3 months.

Sharing Pair Quality Test (PQT) results with CPs

- A.26 When Openreach engineers run PQTs (a test on the copper line), at end-users premises during fault visits, they receive technical data that details how the line is performing against the required technical standard. These test results are not passed to the CP.
- A.27 The data collected by Openreach could be of use to CPs and could be used to reduce repeat fault related visits (and their associated costs). Consumers could then benefit from both reduced fault rates, and lower prices as a result of cost efficiency.
- A.28 Sky submitted a SoR in Nov 2012 requesting that PQT results be shared with CPs.
- A.29 Since that point, the development process has been extremely protracted with the SoR now being "in development" for two and a half years. The SoR has wide support from CPs but this has not helped the development to proceed at a reasonable timescale.
- A.30 This demonstrates a lack of responsiveness to SoRs that could increase efficiency, reduce the costs incurred by both Openreach and CPs, and improve consumers' experiences.

Single Order GEA

- A.31 Openreach announced in June 2014 that it is developing a Single Order GEA product (a product which allows CPs to rent a wholesale fibre line without complementary WLR or MPF copper line rental) outside of the SoR process.

³⁹ A jumper comprises wiring within a local exchange and/or street cabinets.

- A.32 Although Sky supports the principle of offering a fibre line on its own, it does not believe that the development (in its proposed form) offers any benefit to CPs. It offers no functional benefit, nor improved pricing for CPs, with respect to current products.
- A.33 Openreach plan to pilot the product (c.10k lines) in September 2016 and Sky assumes that Openreach is planning to launch the product in early 2017.
- A.34 Sky does not consider there to be demand for the product, with its current specifications, and as such has submitted a SoR requesting amendments to its specifications. This is a clear example of Openreach attempting to implement significant new services outside of the SoR process, without taking into account the views of other CPs.

Annex 2

There would be likely to be significant net benefits from establishing Openreach as an independent company

- A.1 Establishment of Openreach as an independent company would give rise to the potential for significant benefits being realised, with little downside risk.
- A.2 One of the reasons given by Ofcom for preferring undertakings to a MIR in 2005 was that there was little support among other operators for the option of structural separation.⁴⁰ That is no longer the case. There is now significant support within the sector for, at a minimum, a thorough consideration of the potential costs and benefits of separation.
- A.3 The following sub-sections briefly consider the key potential advantages and disadvantages of establishing Openreach as an independent company.

Advantages of establishing Openreach as an independent company

Creating a level playing field for competition

- A.4 The first and most obvious advantage of establishing Openreach as an independent company is that it removes the conflict of interest that sits at the heart of the competition issues set out above. An independent Openreach would have little incentive to favour BT's retail business; all CPs would operate on a level playing field, and it maximises the scope for effective competition in the provision of high speed broadband services to be established. The significance of this benefit cannot be underestimated.

Promotion of alternative infrastructure investment

- A.5 One of the benefits of separating Openreach from the rest of BT that is often overlooked is giving BT's retail business the ability to contract with other operators for the provision of inputs to its business. Currently, it would be unthinkable for BT Consumer to consider purchasing inputs from a rival to Openreach, such as Virgin Media or other potential investors in telecoms infrastructure. BT Consumer is, in practice, a captive customer for Openreach. Plainly, in common with most CPs, BT Consumer would continue to purchase the vast majority of its inputs from Openreach. However, a proportion of BT Consumer's requirements would become contestable. This could have a significant impact on Openreach's incentives, and the incentives of other operators to invest in alternative infrastructure.⁴¹

Service performance

- A.6 There are good reasons to believe that service delivery could improve significantly if Openreach was divested from BT. For example:
- the pressure on Openreach to deliver profits to finance other BT initiatives, or to compensate for poor performance in other divisions, such as BT's Global Services

⁴⁰ See, for example, Ofcom's summary of responses to its second consultation during the strategic review. (http://stakeholders.ofcom.org.uk/consultations/telecoms_p2/summary).

⁴¹

Division, via quality-reducing cost cutting would be eliminated;

- the ability of BT Consumer to source inputs from other suppliers may provide an increased source of pressure on service delivery;
- Openreach would have full control of its own budgets and independent access to capital markets; and
- there is the potential for a culture shift at Openreach, associated with becoming an independent company with full control over its own strategy – to become a company that places far greater emphasis on serving the interests of its direct customers and end-users.

Deregulation

- A.7 Establishing Openreach as an independent company would also enable regulation to be simplified significantly. The vast majority of the Undertakings, together with complex behavioural regulation such as the VULA margin test, would no longer be necessary and could be removed. This would be a significant deregulatory step, and assist in focusing regulation on issues specifically associated with the enduring bottleneck (natural monopoly) part of BT's business.

Potential risks of establishing Openreach as an independent company

Incentives in relation to new investment

- A.8 The principal argument used by BT in favour of retaining ownership of Openreach is that this is necessary to support significant new investment, such as BT's investment in FTTC. This is often also (erroneously) positioned as an argument for having an "anchor tenant" to support investment. These arguments are without merit.⁴²
- A.9 The threat of potential new investments not being made in future is a somewhat unrefined response made regularly when changes to regulation of BT are put forward. Such assertions must be examined rigorously. BT's proposition is that there may be significant investment opportunities for Openreach in the future that would be profitable if it is vertically integrated with BT Consumer, but unprofitable if it is not. In Sky's view that proposition is implausible on its face.
- A.10 BT's proposition focuses on investment risk. In essence, the argument is that vertical integration lowers investment risk, therefore making potentially unprofitable investments profitable.
- A.11 The heart of this issue is well known. It is described in economics as the 'hold-up' issue.⁴³ This issue arises where one firm must make substantial new irreversible investments and is subsequently dependent on the efforts of others to earn an adequate return on those investments. In such a scenario the firm making the investment faces a risk that, once it has invested, other firms can either 'hold it to ransom' (for example by demanding lower prices for its products) or simply fail to purchase enough of its products over time for it to earn a

⁴² Anchor tenancy is a concept that arises in vertically separate sectors, and therefore is not relevant to BT given its vertical integration. It is a contractual solution to the hold-up issue. The term is often used in the context of real estate development, where, for example, a developer of a new shopping mall enters into a contract with an important retailer to encourage them to rent space in the new development. Airports provide another example, with airport operators often seeking an 'anchor tenant' in the form of an airline which focuses its services at a particular airport.

⁴³ For a more detailed discussion of this issue, see 'The "Hold-Up" Problem in Vertically-Related Industries, An economic analysis'. CRA, June 2015. (Attached at Annex 3.)

reasonable return on its investment. In the extreme, this risk may deter the upstream firm from investing at all.

A.12 The so-called 'hold-up' issue is in fact a common scenario in modern industrialised economies, across a broad range of sectors. For example:

- car manufacturers often need to spend enormous amounts on designing and manufacturing new cars, yet remain dependent on independent retailers to ensure that they sell cars in sufficient volumes to recoup such investment costs;
- video games developers spend substantial amounts developing new games. Yet they depend on the behaviour of the suppliers of games consoles in order to generate an adequate return on their investments; and
- oil and gas exploration companies spend enormous amounts finding and developing new oil and gas fields. They are, however, often dependent on the activities of other firms, such as the providers of transport networks and refining capacity, in order to earn an adequate return on their investments.

A.13 One solution to this problem is to integrate vertically, so that the upstream firm has a guaranteed purchaser of its products, or control over the policies of the downstream firm. This issue is however, rarely addressed via vertical integration. Instead, it is generally addressed via the negotiation of contracts between firms, which provide the supplier with sufficient certainty to make the proposed investments.

A.14 It is also the case that the investments that are typically required to be undertaken in BT's network in order to provide new services are relatively modest when seen in a comparative context. BT makes a great deal of the scale of the investment required to upgrade its network to enable it to provide superfast broadband services, which it claims totalled around £2.5 billion, spread over a period of around five years.⁴⁴ First and foremost, it is important to recognise that this capital investment is not incremental; BT has reduced its investments elsewhere (predominantly in its underlying duct and copper network) in order to accommodate its NGA investment without significantly increasing its overall CAPEX. In any event, this is a modest amount – for example, in comparison to (i) other investments that large firms typically make⁴⁵, (ii) other infrastructure projects⁴⁶, and (iii) BT's own metrics, such as the value of its assets, CAPEX, revenue, and its profitability.⁴⁷ Above all, the figure of £2.5 billion spent over five years pales in comparison to the one-off £12.5 billion that BT has agreed to pay to purchase EE.

A.15 The likelihood and magnitude of future network upgrades are highly uncertain. However, an argument that if Openreach is not integrated with a large telecoms retail business it will not, in future, have adequate incentive to undertake further network upgrades due to the scale of their cost is not credible.

A.16 CRA's report also indicates that hold-up problems are normally less significant in sectors in

⁴⁴ BT has also received substantial public funding to pay for additional network upgrades.

⁴⁵ By way of comparison, while BT has made its purported £2.5bn investment over five years, Virgin Media has recently announced an incremental £3bn network expansion programme over two years (even though it is a smaller business). Vodafone Group, as part of Project Spring, plans to invest an additional £19bn over two years.

⁴⁶ For example, the Crossrail project in London has a funding envelope of £14.8 billion, and the cost of airport expansion in the South East of England could be up to £18 billion.

⁴⁷ £2.5bn over five years represents around a fifth of BT's overall CAPEX or under 3% of total revenues over the period. In fact, as a proportion of its revenues, BT typically invests less than its peers (such as major European telcos). For example, BT CAPEX as a proportion of revenues has been consistently around 13% compared to over 16% targeted for 2016/17 by Orange, 21% rising to 25-28% in 2020 at Virgin Media and around 19% for Vodafone.

which there is a reasonable level of downstream competition.⁴⁸ Such competition makes it less credible for downstream firms to threaten not to buy the relevant input once it is being produced, since, if they do so, they risk losing competitiveness. The current strength of competition at the retail level of the UK telecoms sector provides good reason to believe that hold-up issues in relation to new investments by Openreach would be limited if it were an independent company.

Transitional costs

- A.17 It is often claimed that divestment would cause significant disruption both to BT and to industry, and that the scale of this task, from an operational point of view, is substantial. These assertions are significantly overplayed.
- A.18 Openreach has a relatively small customer base, and many of its key customers are supportive of divestment. CPs are best placed to comment on their willingness to accept any disruption associated with divestment of Openreach. In Sky's case, we believe that any such disruption would be minimal.
- A.19 In relation to the scale of the task of separating Openreach from the rest of BT, in the first instance it is important to recognise that firms are broken up into separate companies voluntarily on a regular basis.^{49, 50} The types of issues that need to be addressed in such separations are well known – for example, the division of assets, liabilities and staff between the two businesses – and there is considerable third party expertise available to advise on them.⁵¹
- A.20 Above all, however, the fact that Openreach is already functionally separated from the rest of BT means that many of the most significant elements required for a divestment that would typically result in transition costs are already in place, and the relevant costs have already been incurred. For example, Openreach already has separate IT, accounting and management systems in place, a separate brand, a dedicated management team, and operates out of separate premises.
- A.21 In Sky's view, given these factors the task of divesting Openreach would be an order of magnitude less complex than the integration of the businesses of BT and EE, which BT is fully prepared to undertake in the event that its proposed merger is completed. It would be perfectly capable of being undertaken in a twelve month period.
- A.22 There is also no reason to believe that BT shareholders would be disadvantaged in any way by a divestment of Openreach. Business divestitures are normally at worst neutral from the point of view of investors, and there is considerable evidence that they typically enhance

⁴⁸ See section 2.2.3 of CRA's report.

⁴⁹ For example, a recent item on CNN's web site describes numerous current break-ups of large companies in the US as the "*latest Wall Street craze*". See <http://www.cfnplan.com/feature-item/312-company-break-ups.html>. The break-ups described in that item include Hewlett-Packard, eBay's divestment of PayPal, General Electric's divestment of Synchrony Financial, and Time Warner's divestment of Time Inc. Indeed, BT itself divested O2 in 2005.

⁵⁰ Such break-ups are also often referred to as demergers, or corporate divestitures.

⁵¹ Most major business consultancies can provide advice on divestments. For example, PwC's divestment advisory service is described at: <http://www.pwc.co.uk/transaction-services/carve-out.jhtml>.

returns to investors and improve operational efficiency.⁵²

- A.23 Of course, this does not mean that there would be no difficult issues to be addressed in establishing Openreach as an independent company. In Sky's view, however, the most significant of these issues are regulatory in nature – for example, what activities Openreach would be permitted to undertake in future. And these issues are of no greater complexity than many dealt with by the CMA or Ofcom on a daily basis.

⁵² For example, a 2012 report by Credit Suisse which examined divestitures over 17 years states: “*We find that spin-offs lead to price appreciation for parent companies and their spun-off children.*” ‘Do Spin-Offs Create or Destroy Value?’, Credit Suisse, September 2012. (https://doc.research-and-analytics.csfb.com/docView?language=ENG&source=emfromsendlink&format=PDF&document_id=999089271&extdocid=999089271_1_eng_pdf&serialid=pvH393UArco6JvZlguX4cJ5jXWlkrqD%2bb1l3MzX4YTI%3d.) In relation to operating efficiency, Hardy and Abdul-Magid find that asset sales have a positive impact on the operational efficiency of both the divested asset and the divesting firm. See: Abdul-Magid Gadad & Hardy M. Thomas (2004) ‘Do asset sales lead to improvements in operating performance?’, *Applied Economics*, 36:8, 865-871. (Available at: http://www.researchgate.net/profile/Hardy_Thomas/publication/24075460_Do_asset_sales_lead_to_improvements_in_operating_performance/links/54ec9d4a0cf27bfd77120a5.pdf.)

Annex 3

The “Hold-Up” Problem in Vertically-Related Industries, An economic analysis

CRAI, June 2015

Annex 4

BT Access Network Investment, A report prepared for Sky

Frontier Economics, September 2015