# Openreach response to service-related questions in Ofcom's consultation document

*"Business Connectivity Market Review: Review of competition in the provision of leased lines"*

31 July 2015

**NON-CONFIDENTIAL VERSION**

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**Annexes**

# Foreword

On 15 May 2015, Ofcom published its provisional conclusions on the Business Connectivity Market Review (the "BCMR Consultation"). Ofcom's consultation on the Leased Lines Charge Control was subsequently issued on 12 June 2015, and the supporting modelling was published on 23 June 2015 (the "LLCC Consultation"). Ofcom issued on 9 July 2015 a number of clarifications and corrections to the BCMR Consultation and the LLCC Consultation. The proposed controls are for the period from 1 April 2016 to 31 March 2019 (the "Control Period").

This submission is provided on behalf of British Telecommunications plc ("BT") by Openreach, a functionally separate division of BT, in response to the service issues contained in the BCMR Consultation.

BT Group is also providing a separate response to the BCMR Consultation and LLCC Consultation, reflecting the combined views of other BT lines of business (the "BT Group Response").

# 1 Executive Summary

## 1.1 Market context

1. The wholesale market for Ethernet services in the UK is dynamic and growing. Openreach now sells Ethernet products to over 250 Communications Provider (CP) customers, who use the products to onward sell propositions to a wide range of corporate end customers, and for the purposes of building their own fixed and mobile communications networks.

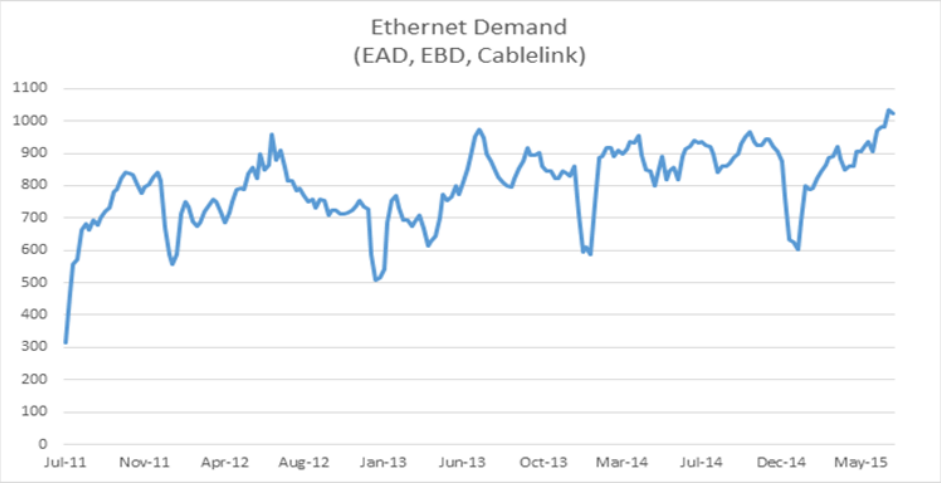
2. The size and complexity of the market for Ethernet services are both increasing, and Openreach is enhancing its performance to meet these challenges. Openreach now regularly completes in excess of 1,000 Ethernet circuits every week[1], a 29% increase from the previous year[2] and we are targeting further improvements to increase weekly capacity to 1,400.

3. Openreach is also processing higher numbers than ever before of circuits that require new network to be built and so are the most challenging to deliver. We now regularly complete over 500[3] of these types of circuit weekly, representing a 23% year-on-year increase from the same period in the previous year.[4]

4. Furthermore, Openreach caters for the needs of a wide range of CPs where there is significant variety in terms of the CP size, the end customer markets they serve, and the priorities that they have in relation to service. Openreach is also unique in that it serves the whole of the country. Unlike competing Ethernet suppliers Openreach does not have the ability to cherry pick orders based on commercial attractiveness or ease of delivery. In consequence, Openreach is required to process a higher proportion of Ethernet circuits that are operationally the most challenging because they require often significant new network build to be undertaken in their delivery.

5. As shown in Figure 1 below, demand for Ethernet services is strong and has grown by 224% between July 2011 and June 2015. This growth is expected to continue through the period of the new control.

***Figure 1 – Demand for Ethernet services***




[1] Ethernet completions for week ending 24 July 2015 were 1,070 (all Ethernet products).

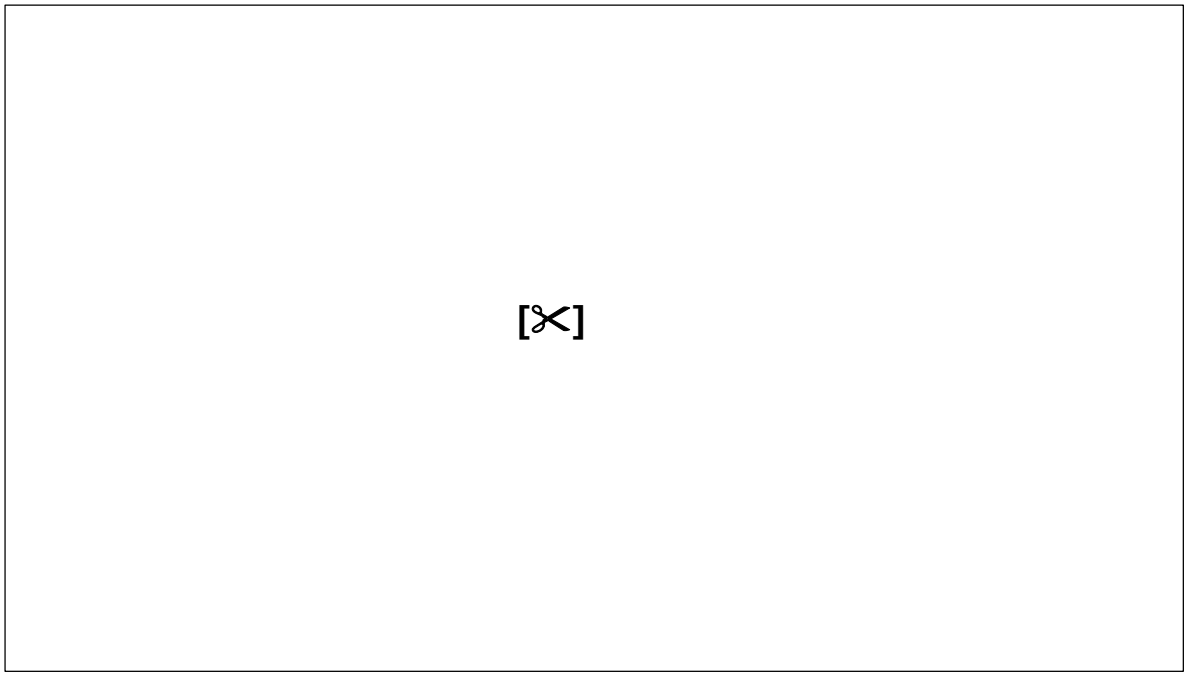
[2] Percentage increase from the equivalent period in 2014.

[3] EAD completions for category 2, 3 and 4 combined for week ending 29 June was 574.

[4] Based on a weekly average during June 2014 and June 2015.

6. Figure 2 below demonstrates the dynamic and often unpredictable nature of the market, and the challenges this presents. The 'original budget' shown reflects the previously expected levels of throughput based on the industry forecast that Openreach develops, incorporating CP insight where this is provided. As is clearly evident, the actual number of orders received during the first part of financial year 2015/16 has been significantly (over **[✂]**) ahead of forecast. This creates significant operational challenges for Openreach since accurate forecast information is critical to right-size the delivery organisation. As shown, Openreach has now radically revised its forecast for the remainder of 2015/16.

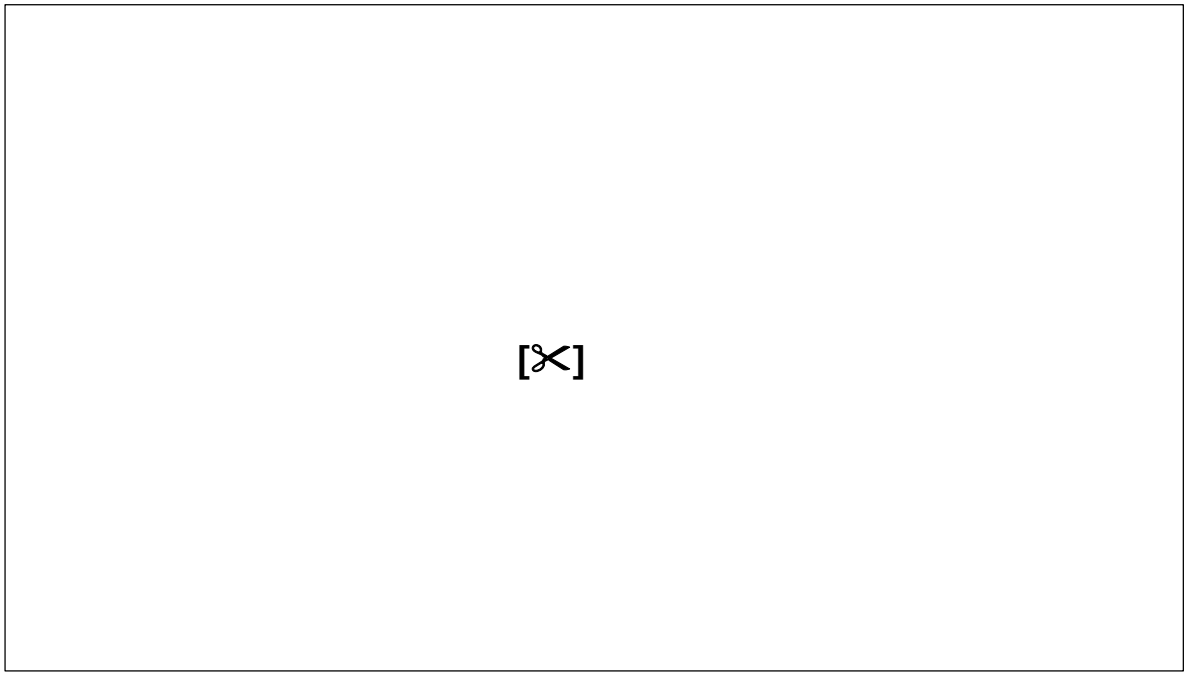
***Figure 2 – Analysis of orders received against original budget***




7. A consequence of unpredictable (and in this instance under-called) demand is shown in Figure 3 below. The chart shows the current Ethernet work stack along with the latest view of future work stack reduction based on demand throughput plus Openreach's expected future capacity for job completion. As is clearly shown, had the level of demand been aligned with the previous industry forecast, greater progress would have been made against reducing work stack levels. This clearly demonstrates the volatility and unpredictability of this market, and the consequences this can have on Openreach's ability to provide consistently good levels of service. Given market characteristics, Openreach considers that it is not within its control to create fully accurate demand forecasts, and so the effects outlined are to an extent exogenous to Openreach. These issues need to be accommodated by Ofcom in its proposals such that Openreach is not penalised because of factors that are not within its control.

8. We note that the only option for Openreach to fully de-risk the impacts of future demand surges would be to resource to a level sufficient to deal with the highest potential demand spikes. This would, however, inevitably lead to inefficiently high costs and have implications for Ethernet prices that would not be attractive to the market. As set out in more detail in this response, we also note that improving forecasting is an industry issue, and more collectively needs to be done to ensure improvements can be made where possible.

***Figure 3 – Impacts on work stack projections of current demand levels***




9. The market for Ethernet services is also increasingly competitive at the wholesale level. Ofcom's own estimate of the Openreach market share has reduced markedly since the last BCMR in 2013 with strong competition particularly evident in the markets for very high bandwidth Ethernet and optical services.[5] Furthermore, in some parts of the country the market is clearly fully competitive with no single operator (including BT) having significant market power (SMP).[6]

10. This is a strategically important market for Openreach. Ethernet services contribute around one fifth of Openreach's revenue, and growth is forecast to continue. To be successful in this market, Openreach will need to continue to innovate, including in relation to product specification, commercial offers, and service performance for both provision and repair.

## 1.2 Openreach's commitment to delivering good quality of service

11. Openreach recognises that its service performance in relation to certain aspects of Ethernet service delivery has not kept pace with dynamic market changes in recent years. The specific areas of concern are in relation to the speed and certainty of delivery for circuits where new network build is required.

12. Other important aspects of Openreach's Ethernet service performance are delivered at consistently good levels. For example, Openreach's performance against the repair service level (5 hour fix, 24 hours a day, 365 days a year) has been consistently above 90% since 2010. Furthermore, Openreach has consistently delivered category 1[7] circuits since 2010 at or below 30 days, and has further improved its performance in relation to these types of circuit by around 5 days since summer 2014.

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5 BCMR Consultation (May 2015), Table 4.4 at page 73.

6 BCMR Consultation (May 2015), para. 4.126.1.

7 Category 1 circuits are where a fibre connection is available from the customer's premises and Openreach's network distribution node.

13. Openreach is committed to improving Ethernet service performance where needed, and to delivering first class levels of service on a sustainable basis. To this end, Openreach has already taken a number of steps to enhance service improvement. These include increasing delivery resources by 1,018 additional people between Q2 2014/15 and Q2 2015/16 and creating a new 'Business and Corporate Delivery' (BCD) unit with sole responsibility for Ethernet delivery. Openreach is also making significant investments to deliver platform and process improvements.

14. There are a number of other important improvement initiatives in progress, the full benefits of which have yet to be realised. These include 'Differentiated Order Journey' (DOJ) which aims to improve certainty of delivery against the initial Contractual Delivery Date (CDD) offered, together with the scale launch of Ethernet delivery over the Equivalence Management Platform (EMP). In parallel Openreach is engaged in discussions with CPs, under facilitation of the Office of the Telecommunications Adjudicator (OTA2), to re-negotiate the current provision Service Level Agreement /Service Level Guarantee (SLA/SLG) scheme.

15. The scale of these improvement initiatives is testament to Openreach's commitment to improving Ethernet service on a sustainable basis and the investments made are already paying dividends, with a 14% year-on-year increase in Openreach's weekly Ethernet completions evident for the first quarter of FY 2015/16. These ongoing improvements will also be fundamental to Openreach's ability to meet and exceed the new minimum standards that Ofcom is proposing in its consultation. It is therefore important that in specifying the minimum standards, Ofcom takes full account of the timing and impact of the various improvement initiatives and also enables Openreach to recover its efficiently incurred costs that are associated with delivering these key plans.

## 1.3 The practicalities of delivering Ethernet services

16. There are a number of challenges associated with the delivery of Ethernet circuits, particularly in relation to those requiring new network build.

17. Unlike the 'copper'[8] and next generation access (NGA) products, there is no pre-built national Ethernet network. Openreach is pre-providing new fibre where there is likely to be future demand, but there is no economically viable case for building a national Ethernet network. This means that a high percentage of Ethernet circuits (currently around 60%) require different degrees of new network build activity involving, for example, building new duct and spine network capacity. Delivering these types of circuit typically requires multiple stages of activity to be undertaken, can involve significant civil engineering work, and can be subject to delay for a number of factors not all of which are fully within Openreach's control (e.g. in relation to traffic management and wayleave applications).

18. In this respect, Ofcom is also right to recognise in the consultation that significant aspects of the overall delivery process are controlled by CPs. These include crucial elements of the delivery process such as arranging access to the end customer site and ensuring that the site is ready for installation work to be undertaken.

19. However, Ofcom does not take sufficient account of the factors that cause delay that are not fully within Openreach's control. For example, in relation to the circuits that are the most difficult to deliver, the requirements to obtain traffic management and wayleave permissions are

[8] The main copper products are Wholesale Line Rental (WLR), Metallic Path Facility (MPF) and Shared Metallic Path Facility (SMPF).

frequently prevalent, and can cause very significant delay to circuit delivery (typically between 20 and 60 days depending on circuit type) that is not fully within Openreach's control.

20. In order to specify minimum standards that are challenging and proportionate, Ofcom needs to take account of these factors, and ensure that the minimum standards imposed do not unreasonably include elements that are beyond Openreach's realistic control and influence.

## 1.4 Ofcom's consultation proposals

21. Ofcom is proposing a very significant set of additional interventions in relation to Ethernet service, with the proposed minimum standards as the centrepiece.

22. We support Ofcom's wider approach of integrating Quality of Service (QOS) into the market review and charge control processes, and note that good progress has been made by Openreach following the implementation of minimum standards in the 2014 Fixed Access Market Review (FAMR).[9] However, for Ofcom's approach to work, it is critically important that the correct links are in place between the various regulatory processes, and that Ofcom's policy interventions work in alignment.

23. In this respect, we are concerned that the imposition of a Dark Fibre remedy will involve significant work in relation to product development and deployment that will affect a number of areas including operational processes, systems capacity and delivery resources. There is a risk that Dark Fibre creates significant disruption not just for Openreach, but also industry, and that this will present additional challenges in delivering the work needed to underpin performance improvement for the active products.

24. We also consider that Ofcom has significantly underestimated the likely scale and complexity of migration to Dark Fibre, including the likelihood of CP aggregation. More detail on this subject is provided in the BT Group Response to the BCMR.

25. It is also important that any minimum standards imposed strike the right balance between being challenging and proportionate (both commercially and operationally).

26. Openreach understands the need for minimum standards in relation to provision performance, and agrees with Ofcom that the key aspects of service performance are certainty of delivery and speed of delivery. We also note that Openreach is already highly transparent in how it reports against its service performance, both to CPs and publicly.

27. We support a number of aspects within Ofcom's proposals, including:

- the imposition of minimum standards at a national level;
- the requirement to assess performance annually;
- the removal of customer delay from the measurement of the minimum standards; and
- setting a glide path over the term of the new control in order to provide Openreach with a reasonable period of time in which to make the necessary arrangements to meet the minimum standards imposed.

[9] Ofcom's *Fixed Access Market Reviews: wholesale local access, wholesale fixed analogue exchange lines, ISDN2 and ISDN30*, published on 26 June 2014 (the 2014 FAMR Statement).

**Openreach's principal concerns in relation to Ofcom's provision minimum standard proposals**

28. The minimum standards should be challenging and achievable. We are very concerned that certain aspects of Ofcom's proposals may be setting Openreach up to fail and need to be revised. These are summarised below, and discussed in more detail in the remainder of this document.

29. The increasing levels of performance that Ofcom is proposing for the certainty minimum standards over the three years of the new control do not reflect any consideration by Ofcom about what is likely to be reasonably achievable in future and are set at too high a level.

30. In setting the certainty proposals Ofcom has departed from its approach elsewhere (for example in the setting of charge controls and the speed minimum standards proposed here) of mandating performance glide-paths that are delivered over the period of the control. This is highly problematic. Ofcom should assess historic performance against the proposed minimum standards and analyse 'glass ceilings' that place practical limits on the levels of theoretical performance. We consider that it would be more appropriate to set the certainty minimum standard for year 1 at 72%, and that further analysis is required to define an appropriate year 3 minimum standard.

31. Although we understand why Ofcom is proposing to link the certainty and speed minimum standards (i.e. to prevent Openreach achieving the certainty minimum standards by offering unduly conservative initial CDDs) the approach that is proposed undermines DOJ (by creating what is effectively a second speed target that Ofcom has not justified) and in doing this constrains Openreach's ability to improve its certainty performance. Ofcom should change its proposal and move to a less intrusive and more proportionate alternative based on monitoring.

32. Ofcom should measure compliance against orders placed rather than orders completed from the beginning of the new control period. The current proposal is effectively the retrospective application of new regulation because it considers orders which were placed before the new regulation comes into force. This proposal creates particular problems in relation to the upper percentile speed minimum standard that is being proposed.

33. The upper percentile speed minimum standard is likely to be unachievable as currently formulated. Ofcom should change this measure to be against orders placed from the start of the new control period, and not orders completed as is currently being proposed. This revised approach could be supplemented through separately monitoring an improvement plan for circuits that are within the current work stack.

34. By proposing to include all forms of delay except customer delay in the minimum standards, Ofcom is placing the entirety of the remaining risk on Openreach, even in relation to delays that are not within Openreach's control. This is not proportionate. Ofcom should review and refine its proposals in this area, as it is standard commercial practice to expect CPs to exclude liability from third party risks with their end customers.

**Further comments on the Ofcom proposals**

35. We do not consider that minimum standards are required in relation to repair. However, if Ofcom decides to impose what would in effect be a precautionary minimum standard in this area, the appropriate level should be set at 91%. This will be a more proportionate back-stop of performance for a minimum standard, and would still incentivise the delivery of very high levels of performance through the new control period consistent with Openreach's historic performance levels.

36. Openreach supports Ofcom's proposals in relation to the Key Performance Indicators (KPIs) for the active products. These proposals chime with Openreach's existing strategy to be highly transparent in relation to underlying service performance. In relation to Dark Fibre products, we consider that it is premature to define KPIs ahead of the relevant products being fully specified.

37. However, there are a number of factors that could impact Openreach's ability to meet future minimum standards. The outcomes of these factors are difficult to predict, and so create uncertainty. These include:

    - the future mix of demand by circuit type (in simple terms the split between those circuits requiring network build and those requiring minimal network build);
    - the accuracy of demand forecasting;
    - the impact of Dark Fibre (should it be mandated as a remedy); and
    - the timing of CP adoption of EMP.

38. For example, as the NGA footprint expands and the upstream and downstream speeds that can be delivered using NGA increase, there will be increasing substitution of Ethernet by NGA circuits. However, forecasting the precise impact of this effect on the future category mix of Ethernet circuits is very difficult to do with confidence.

39. Given this degree of uncertainty, Ofcom is right to propose a new QOS SMP condition. This would allow proposals set out in the BCMR Consultation to be reviewed and re-specified within the period of the new control should circumstances arise that mean that the proposals are no longer tenable or effective. Ofcom should closely monitor how the remedies it applies are operating during the period of the new control, and should stand ready to make further changes on appropriate notice should this be required.

40. We also support Ofcom's proposal that changes to the existing SLA/SLG schemes can be best managed via a process of facilitated industry negotiation. This process has worked well following its introduction in the FAMR and Ofcom is right to give effect to the same proposal in the business connectivity market. In relation to SLGs, we are concerned that some of Ofcom's proposals constrain Openreach's ability from a minimum standards compliance perspective to change dates for non-customer reasons post the issuing of the initial CDD. Ofcom should explicitly set out that this effect does not also constrain Openreach's ability to protect its SLG exposure through the application of deemed consent at a circuit level when specific circumstances arise.

41. Openreach's detailed comments in relation to the issues raised in the BCMR Consultation are provided in the remainder of this document.

# 2 Responses to questions in Ofcom's BCMR Consultation: "*Business Connectivity Market Review: Review of competition in the provision of leased lines*"

***Question 13.1: Do you agree with our assessment of Openreach's Ethernet provisioning process, how it has been working in practice, the root causes of performance deterioration and process developments? Does our assessment reflect your experiences and understanding of Openreach's wholesale Ethernet provisioning performance? If not, please explain why and provide us with any supporting evidence.***

42. Ofcom is right to recognise that Ethernet circuits are bespoke in nature (in that every order has its own specific network build characteristics), and that the most significant area of challenge in delivery occurs where new network needs to be built. In fact, the majority of Ethernet circuits today require new network build to be undertaken as part of the delivery process. For example, between April 2014 and June 2015, 61% of Ethernet Access Direct (EAD) circuit completions were classified as either category 2, 3 or 4 and so required differing degrees of new network build to be undertaken.

43. Openreach's performance in relation to category 1 circuits has been consistently good over time (and has recently been on an improving trajectory). The 'problem' associated with Ethernet provision is in relation to circuits where new network needs to be built.

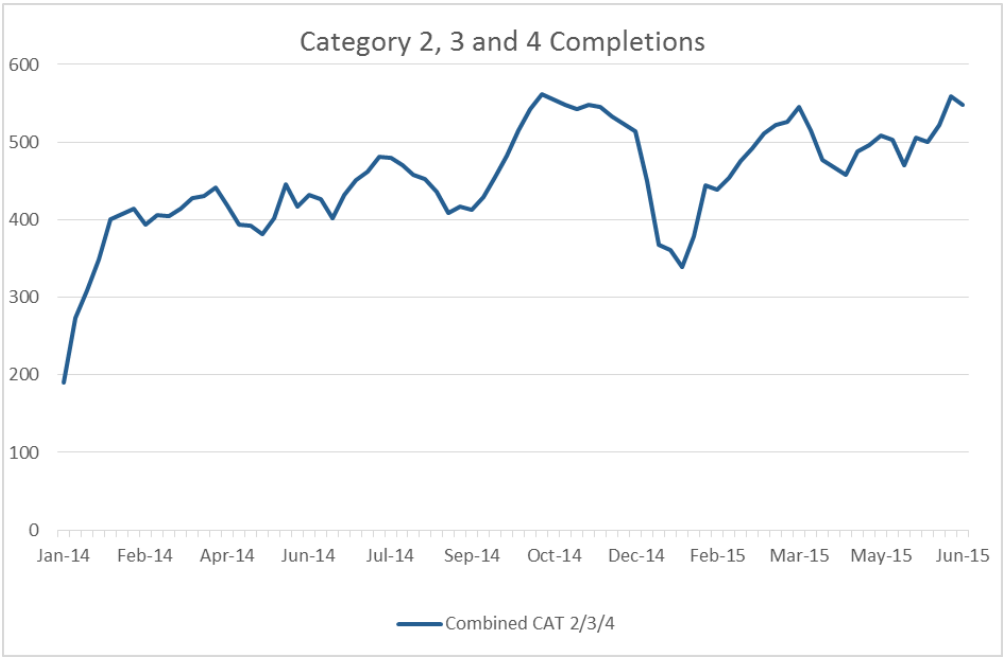
44. The definitions of the Ethernet circuit categories are provided in Table 1 below.

***Table 1 – Openreach's definitions of the Ethernet circuit categories***

| Circuit Category | Definition |
|---|---|
| 1 | Fibre connection available between customer's premises and Openreach's network distribution node. Possible installation and connection of fibre and equipment within the customer's premises an service testing and commissioning required. |
| 2 | Fibre connection is available between Openreach network distribution nodes. In addition to possible category 1 activities installation of duct and fibre (cable or tubing with blown fibre) is required from Openreach network distribution node(s) to the customer's premises. |
| 3 | In addition to possible category 1 and 2 activities a new spine fibre connection is required in part or whole between Openreach distribution nodes and serving exchange. |
| 4 | In addition to possible category 1, 2 or 3 activities a new core fibre is required between exchanges. |

45. Openreach is now delivering record numbers of circuits that require the most significant level of additional network build to be undertaken, and which are therefore the most challenging to deliver. Figure 4 below, sets out the total number of category 2, 3 and 4 circuits delivered between January 2014 and June 2015.

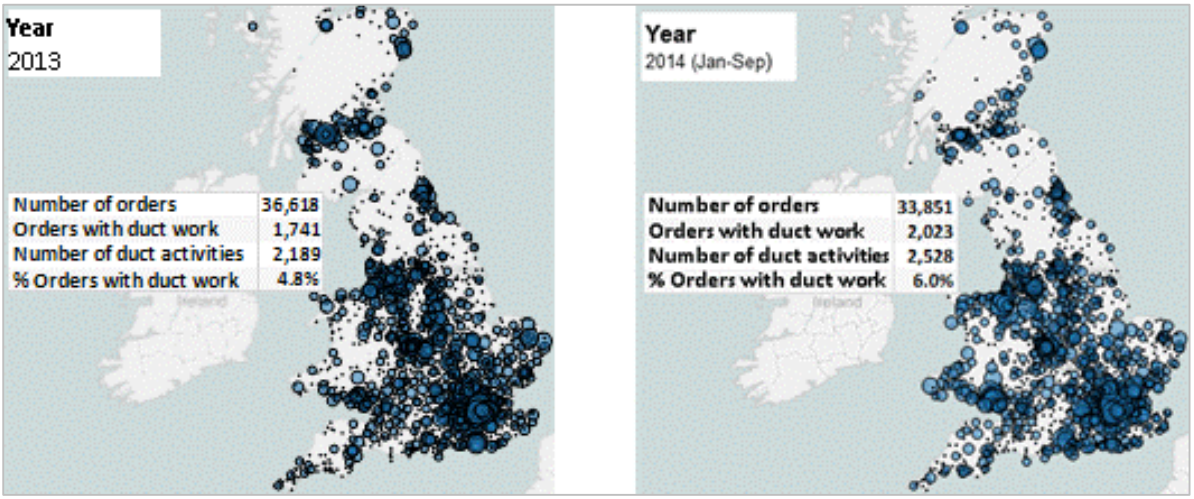
***Figure 4 – Category 2, 3 and 4 completions***




46. Openreach's view is that demand for Ethernet services is set to increase during the course of the next BCMR control period, and this will include continued growth in relation to circuits that require significant new build activities to be undertaken.

47. The volume of orders (across all circuit categories) that require duct work to be undertaken is also increasing, both in absolute terms and as a proportion of overall provisions. As set out in Figure 5 below, between 2013 and 2014 there was a significant increase in the number of provision jobs requiring duct work, with a higher number in the first nine months of 2014 than the whole of 2013. The proportion of jobs requiring duct work also increased between 2013 and 2014. The underlying average 'difficulty' of the work that Openreach is required to deliver is increasing, both in absolute terms and as a proportion of the total order population because duct work is often time consuming and can involve significant civil engineering activity to be undertaken.

***Figure 5 – Levels of orders requiring duct work in 2013 and 2014 (2014 is January-September)***



48. Ofcom correctly recognises the significance of category mix over time as being a factor influencing service delivery. However, Ofcom has not sufficiently recognised that the absolute increase in circuit numbers requiring additional network build itself presents a growing challenge, and that there is evidence to suggest that the underlying average 'difficulty' that Openreach faces in delivering circuits is increasing. These challenges cannot be fully mitigated by simply increasing the resources of the Openreach delivery organisation, particularly as the increasing difficulty of the order mix is likely to be governed by factors outside of Openreach's control such as the location of end customer sites.

**Delivery value chain**

49. The delivery of Ethernet services is multi-layered, influenced by Openreach, CPs and third parties as well as end customers.

50. Similarly, obtaining access to space and facilities such as power in the end customer building may be the responsibility of one or more independent landlords and / or their own agents. The delivery process is therefore subject to often complex and multi-layered communications between different parties and so is heavily reliant on good levels of collaboration between all the major players in the delivery value-chain, including Openreach, CPs, end customers and their landlords / managing agents.

51. It is important that Ofcom's proposals take full account of this, and recognise that while Openreach is clearly a crucial part of delivering consistently acceptable levels of service into the market, it is not solely responsible for the totality of the end customer service experience.

52. As set out in more detail below in our responses to Questions 13.5 and 13.6, consideration needs to be given not only to including or excluding categories of delay associated with customers or third parties, but also to potential changes over time to different types of delay that are likely to influence end-to-end delivery performance, and that may impact on Openreach's ability to meet any specified minimum standards.

**Exogenous factors**

53. Ofcom has not properly considered the impact of exogenous factors over time and their influence on Openreach's ability to deliver Ethernet services to specified service levels. This needs to be considered properly if Ofcom's proposed minimum standards are to be proportionate.

54. In particular, the following factors should be explicitly accounted for in Ofcom's thinking in the specification of the minimum standards:

- The role of more accurate and timely CP forecasting to enable Openreach to resource at an economically efficient level in the right locations sufficient to meet market demand and deliver consistently acceptable service levels;
- The need for accurate forecasting will become more pronounced if and when Dark Fibre obligations are introduced since Openreach will need to understand the new mix of passive and active products to deploy appropriately skilled resources to meet market need;
- The impact of inaccurate demand forecasting in a growing market where daily demand volatility is high and becomes more pronounced at a regional level. Competition is strong in a number of areas of the market, and end customers and CPs often have a wide range of alternative connectivity options to choose from including Ethernet, Ethernet First Mile (EFM) and NGA. This creates further difficulties in creating accurate demand forecasts;

- The changes over time, including legislative, in relation to traffic management and wayleaves and their implications for Ethernet service delivery; and
- The implications for active product delivery of introducing a Dark Fibre product. In addition to the forecasting considerations set out above, this will require significant industry work and may lead to resource bottlenecks within the industry teams working on multiple overlapping transformational activities.

55. We set out more detail in relation to the factors above in the responses to Questions 13.6, 13.8 and 13.9 below.

**Project Services and BT Customers**

56. We agree with Ofcom that there is no evidence to suggest that Openreach treats Ethernet services that are purchased in conjunction with Project Services more favourably. There is also no evidence to suggest any systematic bias regarding the treatment of Ethernet services purchased by downstream BT customers.

57. Project Services are utilised by CPs typically in relation to more complex delivery projects where additional co-ordination is likely to be beneficial. These services are offered on an Equivalence of Inputs (EOI) and non-discriminatory basis, and there are internal checks in place to ensure continued compliance with the relevant obligations. Project Services have also been subject to regular external scrutiny via the Equality of Access Board (EAB) and Equality of Access Office (EAO) and it is noteworthy that it has been found that "…*the EAO has reviewed project services a number of times and found that the product is offered equivalently to all CPs*" and that "…*no compliance concerns were identified*." [10]

58. Similarly, in relation to Ethernet services delivered to downstream BT customers, Openreach is subject to no undue discrimination and EOI obligations, and is scrutinised in relation to its adherence to these obligations.[11]

59. In summary, we consider that Ofcom is correct to assess that there is no bias in relation to Ethernet performance associated with circuits that are either purchased in conjunction with Project Services or sold to BT customers. The existing obligations are fully observed by Openreach and are sufficient. There is no objective basis for further regulatory intervention.

60. As set out in the BT Group Response [12], we welcome Ofcom's views that a prescriptive approach to regulating Project Services is unnecessary and that a charge control for the service is not required[13]. We believe that Ofcom should also acknowledge the fact (as it did in the 2013 review) that some Project Services offerings could be fully replicable by CPs and that in such cases, regulation should not apply[14].

**Ofcom's analysis of the root causes of deterioration in service performance**

61. We agree that the closure of the Ethernet Systems Transformation (EST) programme in February 2013 did have an impact on the Ethernet provision performance, particularly as the

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10 EAB Annual Report 2015, page 6. This can be accessed at: https://www.btplc.com/Thegroup/Ourcompany/Theboard/Boardcommittees/EqualityofAccessBoard/Publications/EAB_Annual_Report_2015.pdf

11 Openreach is subject to regular 'Z-tests;' an algorithm used to produce a graphical representation of BT and External CPs' delivery performance from an equivalence perspective. It is produced for each EOI product on a monthly basis for the EAB.

12 BT's response to Ofcom consultation document "*Business Connectivity Market Review: Review of competition in the provision of leased lines*" dated 31 July 2015, Question 8.1.

13 BCMR Consultation (May 2015), paras. 10.58 and 10.59.

14 BCMR Statement (March 2013) paras. 12.97 and 12.264.

anticipated process improvements that were attached to the programme could not be realised. The impact of this false start is very difficult to quantify, but as set out in the response to Question 13.9, Openreach and CPs have learned from this experience and are using this to ensure that the re-launch of Ethernet delivery over EMP is successful.

62. In relation to resource levels, Ofcom should acknowledge the significant investment that Openreach has made in the last year. As set out in Table 2 below, Openreach has added over 1,000 additional Full Time Equivalent (FTE) resource for Ethernet provision.

***Table 2 – Additional Ethernet delivery resource***

| Key resource unit | New recruits into Ethernet (Q2 14/15 – Q2 15/16) |
|---|---|
| Field Engineering (Direct Labour) | 593 |
| Planning | 180 |
| Job Control | 45 |
| Field Engineering (Contractor) | 200 (FTE equivalent) |

63. We consider that these additional resources will be required to meet the demanding minimum standards being proposed by Ofcom, and that Ofcom should take proper account of the additional costs associated with the growing delivery resources (whether contract or direct labour) within the charge control settlement. This will be needed to ensure that Openreach has the ability to recover its efficiently incurred costs in the context of new and more demanding regulatory obligations.

64. As noted above, we do not consider that Ofcom has taken sufficient account of the exogenous factors that will make it more difficult to deliver improved service on a consistent basis. This needs to be done, as discussed in detail in the response to Questions 13.12 and 13.13 below.

65. Finally, we understand why Ofcom has concluded that the existing obligations have not, by themselves, been effective in maintaining QOS at consistently acceptable levels for Ethernet circuit provision where new network build is required. We do, however, consider that the existing remedies have been effective in, for example, ensuring no discrimination in relation to service performance. Further, the existing SLA/SLG schemes placed on Openreach are themselves onerous and should be re-evaluated, particularly when Ofcom is proposing a very significant increase to the level of regulatory intervention elsewhere in relation to QOS. As set out in our responses to Question 13.20, we agree with Ofcom that amendment to the existing schemes will be best delivered in the first instance through a process of facilitated industry negotiation, and not through further regulatory intervention.

**Current developments**

66. Openreach welcomes Ofcom's positive recognition of the DOJ and Clarity[15] improvement programmes, and we strongly support Ofcom's intent to ensure that regulatory intervention does not derail the successful delivery of these and other important programmes. In this respect, and as set out in more detail in our response to Question 13.10, we are very

[15] Clarity notes are updates put onto COSMOSS by the local operational team completing the tasks required to provide a circuit. These notes help Openreach job controllers easily provide customer updates both at key milestone points, but also during tasks, when requested.

concerned that some of Ofcom's proposed remedies will undermine the effectiveness of DOJ as a means to improve the certainty of delivery against initial CDD.

67. Both re-engineering the Ethernet delivery processes and improving the communication through the order journey require detailed discussion between Openreach and its customers to reach the best outcomes. An optimal outcome will be one that balances the needs of the market, where there are inherent trade-offs and also different priorities between different CPs, with what Openreach can be reasonably expected to deliver given economic and operational constraints. Delivery of these important process improvements will be best achieved through a process of appropriately facilitated dialogue and negotiation between Openreach and CPs, and not through regulatory intervention.

68. Openreach remains committed to this process of improvement, and to a continuation of the proactive dialogue with CPs that is essential to deliver it. We also recognise, accept and welcome that such discussions should be subject to independent facilitation and oversight provided by the OTA2.

69. Finally, it is worth noting that DOJ and Clarity are not the only improvement programmes that are being rolled out. As set out in more detail in the response to Question 13.19, Openreach has developed a joined up set of improvement initiatives that will drive service improvement across the key areas of speed of delivery, certainty of delivery and making Openreach easier to do business with. In particular Openreach is also re-launching Ethernet delivery over EMP, and it is important that Ofcom adopts the same policy of non-intervention in relation to this and other critical improvement initiatives.[16]

[16] BCMR Consultation (May 2015), para. 13.117.

***Question 13.2: Do you agree with our provisional conclusions on Openreach's performance? If not, please explain why and provide us with any further supporting evidence.***

**CDD changes**

70. This question (along with other parts of the remaining response) make regular reference to deemed consent. The various types of deemed consent are set out in Table 3 below.

***Table 3 – Deemed Consent types, definitions and categories***

| Deemed consent code | Definition | Ofcom category | Openreach category |
|---|---|---|---|
| DC7A | Customer site not ready for installation | Customer | Customer |
| DC7B | The CP is in breach of any part of the contract or Openreach suspends the service or any part of it in accordance with the contract | Customer | Customer |
| DC7C | Customer site access delay / customer down-time required | Customer | Customer |
| DC7D | The CP and Openreach agree a different timescale for performance of the service | Customer | Customer |
| DC7E | Delayed awaiting customer information | Customer | Customer |
| DC7F | Customer wayleave | Non-customer | Third Party |
| DC7G | The failure is due to a force majeure event | Non-customer | Third Party |
| DC7H | The failure is due to a scheduled outage | Non-customer | Openreach |
| DC7I | The failure is due to an inaccurate order being submitted by the CP | Customer | Customer |
| DC7J | No access after failing to reach the 3 named contacts | Customer | Customer |
| DC7K | No access after an appointment has been made | Customer | Customer |
| DC7L | No specific location access after appointment has been made | Customer | Customer |
| DC7M | Customer appointment outside the 48 hour period | Customer | Customer |
| DC7N | Order suspended at the customer's request | Customer | Customer |
| DC7O | Delays on the driver circuit impacting on this circuit | Customer | Customer |
| DC7P | Weekend or bank holiday access is requested by the customer | Customer | Customer |
| DC7Q | Customer network freeze periods in operation | Customer | Customer |
| DC7R | Customer downtime is required to complete provision work | Customer | Customer |
| DC7S | Risk assessment / method statements to be agreed by customer | Customer | Customer |
| DC21 | Order is awaiting customer acceptance of Excess Construction Charges (ECCs) | Customer | Customer |
| DC22 | There is a need for infrastructure build | Non-customer | Openreach |
| DC23 | There is a cable or exchange breakdown | Non-customer | Openreach |
| DC24 | There is a blocked (e.g. cement) or damaged duct / manhole | Non-customer | Openreach |
| DC25 | Notice is required under the Traffic Management Act or Traffic Scotland Act | Non-customer | Third Party |
| DC26 | There is a manhole or footway box that is contaminated with or by a substance which requires special treatment | Non-customer | Third Party |
| DC27 | Asbestos has been identified | Non-customer | Openreach |
| DC28 | Security clearance is required but not yet agreed | Non-customer | Openreach |
| DC29 | Main frame compression or extension is required | Non-customer | Openreach |

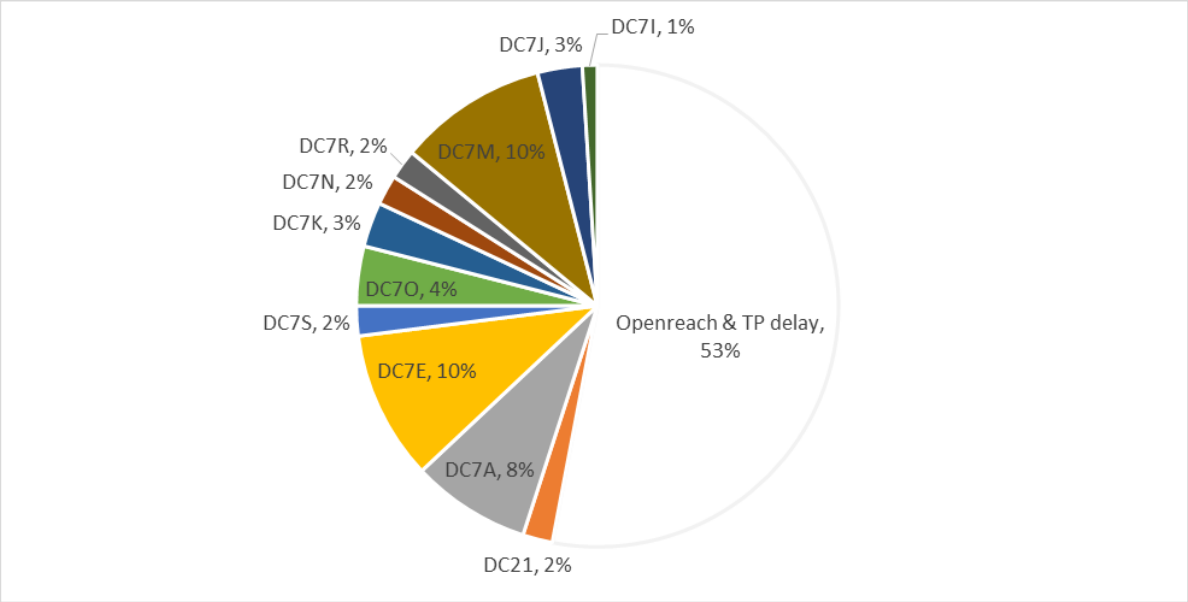
71. Ofcom's provisional findings include reference to "*a clear deterioration in the frequency with which customers face changes to the delivery dates of their orders*."[17] Openreach accepts that the analysis conducted by Ofcom shows that the frequency of deemed consent applications has increased over time, and also that the operation of deemed consent has been a source of dissatisfaction for a number of CPs.

72. However, it is overly simplistic and potentially misleading for Ofcom to characterise an increase in the frequency of deemed consent application as equal to a deterioration in the underlying level of Ethernet service provided by Openreach.

73. As Ofcom is aware, deemed consent can be applied for a variety of specified reasons as set out in the Connectivity Services Agreement (CSA)[18], a number of which are either wholly or partially outside of Openreach's control.

74. For example, as shown in Figure 6 below deemed consent codes associated with different forms of customer delay make up a very significant portion of overall delay post KCI3[19] (47%).

***Figure 6 – Customer delay deemed consent analysis June 2015***




75. Deemed consent applications associated with circuits that require traffic management (DC25) and wayleave permissions (DC7F) to be obtained from local authorities and landlords respectively are less prevalent (typically representing around 7% of deemed consent applications). Openreach consider these to be third party related delays. As shown in Figure 7 and Figure 8 below, when such types of delay occur, they typically have a very high impact in terms of the level of delay that is introduced.

[17] BCMR Consultation (May 2015), para. 13.64.

[18] Connectivity Services Contract Schedule 4C – Service.

[19] Keeping Customer Informed (KCI). Initial CDD and final ECCs are provided at KCI3 in BAU provision processes.

***Figure 7 – Traffic Management average delay times***

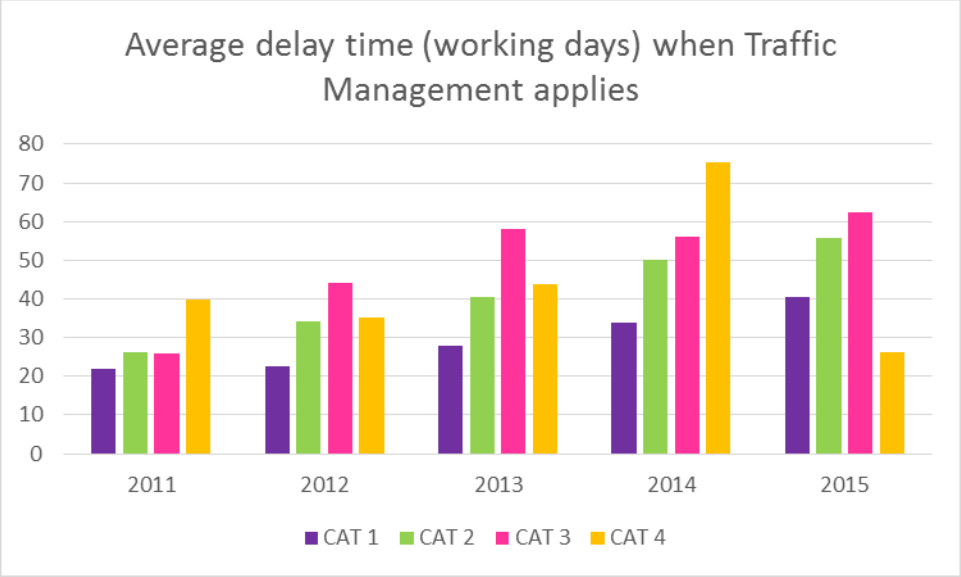
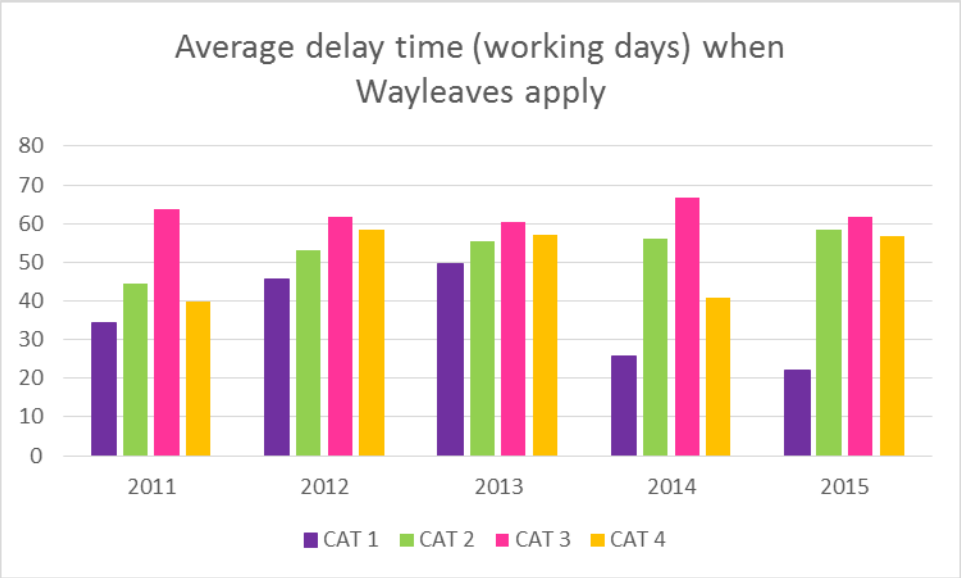



***Figure 8 – Wayleave average delay times***




76. Even where the underlying reason for deemed consent is within Openreach's operational domain, we consider that it is too simplistic to equate the increase in application with a decline in underlying Openreach service performance.

77. For example the application of DC22 (where there is a need for infrastructure build) has increased over recent years. However, this is not obviously due to Openreach's underlying service delivery performance. Unlike copper and NGA services, Ethernet is not delivered over a pre-built national network. Where network does not currently exist, our approach to network build has been to increment capacity based on new demand as it comes in coupled with some targeted pre-build in specific locations. The increase in the application of DC22 is therefore indicative of an increasing demand for circuits that require new network build to be undertaken, given the type and location of the end customers.

78. An example of Openreach proactively building network is in relation to anticipated demand for connectivity to data centres. However, this does not equate to creating a national pre-built network. Such an approach would be wholly unrealistic without attendant cost and price rises that would no doubt be unacceptable to the market. In this context, the increase in the scale and application of DC22 is likely to be indicative of a rising need for additional network build associated with the continued growth and diversity of the Ethernet market.

79. It would be unfair for Openreach to bear the entirety of the financial risk for delayed delivery of Ethernet circuits, where the circumstances that cause the delay are outside of Openreach's control. Deemed consent is the current contractual mechanism to enable this risk to be managed in a fair and proportionate way.

80. Openreach has made significant investment to address CP concerns in relation to deemed consent and certainty of delivery against initial CDD, in particular in relation to the DOJ project. We also continue to monitor the application of deemed consent to ensure it is managed accurately and in line with relevant obligations.

81. We agree that improvements need to be made in relation the certainty of circuit delivery to the benefit of all, but irrespective of the process used, Openreach must continue to be able to reasonably protect its financial exposure in appropriate circumstances and this should not be constrained by regulation.

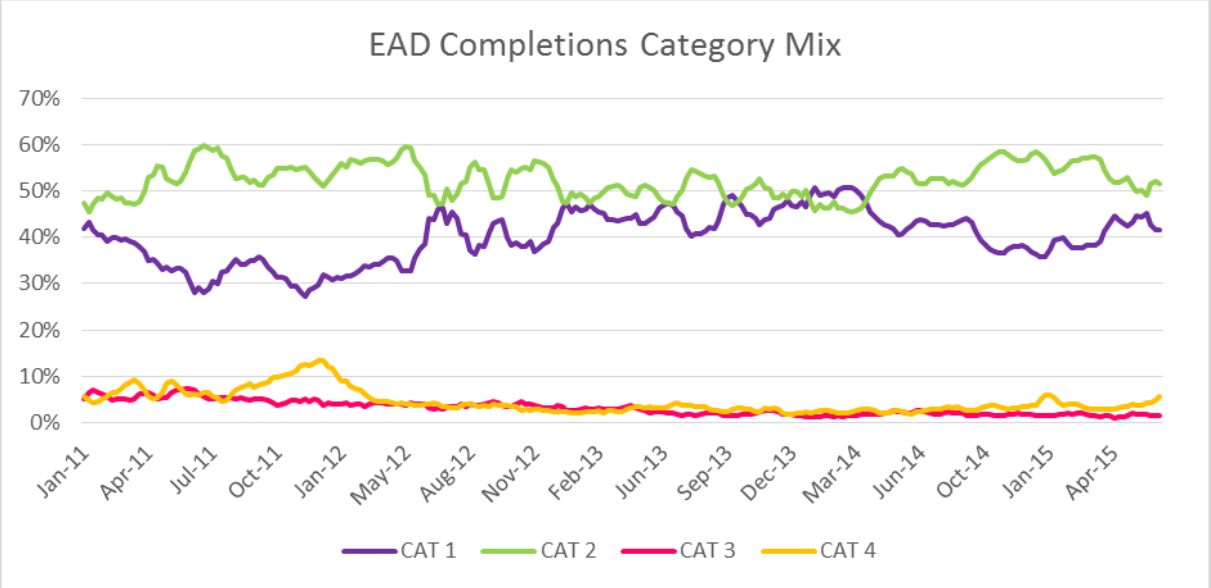
**Lead times and order mix**

82. Ofcom's assessment states that lead time deterioration is relevant to circuits where new network build is required (categories 2 to 4), and that performance in relation to category 1 circuits has been consistently acceptable since 2011.

83. There is a significant difference in the expected performance of 'on-net' (category 1) and 'off-net' (category 2 to 4) circuits, with the former typically taking weeks and the latter often taking months to deliver. We also note, based on international benchmarking analysis, that it is standard practice for 'off-net' orders to take significant amounts of time to deliver given the challenges associated with such orders. More detail is provided in this regard in Annexes A and B to this response.

84. As shown in Figure 9 below, Openreach has updated the category mix profile for EAD used by Ofcom to include more recent data. This analysis shows that the balance between category 1 and 2 circuits has varied over time, with a greater proportion of category 2 circuits evident in recent months.

***Figure 9 – Circuit category mix profile***




85. Ofcom must recognise the relevance of category mix in the future to Openreach's reasonable ability to meet specified minimum standards. If there was a significant shift to category 2 orders during the period of the new control, then it is likely that Openreach would struggle to meet a number of Ofcom's proposed certainty and speed minimum standards (given that category 2, 3 and 4 circuits are inherently much more challenging in relation to both speed and certainty of delivery). For example, if the proportion of category 1 orders were to reduce below 40%, it would be very difficult for Openreach to hit Ofcom's proposed lower percentile speed measure along with the relevant aspect of the proposed linkage between certainty and speed. This is because, even during periods of relatively good performance, only category 1 circuits are routinely delivered within the timescales specified in Ofcom's lower percentile minimum standards.

86. It is not possible to forecast the future category mix profile of Ethernet orders with any degree of certainty, although as set out in Table 4 below there are a number of plausible factors or events that could lead to a shift in the future mix of circuit categories that Openreach is required to deliver.

***Table 4 – Factors that could lead to a shift in future mix of circuit categories***

| Factor / event | Impact |
|---|---|
| Mobile Network Operator (MNO) 4G network expansion | Increase in category 2 and 3 circuits |
| Rate of migration from legacy Ethernet products[20] to EAD and Ethernet Backhaul Direct (EBD) | Faster migration would increase category 1 circuits. Slower migration would increase category 2 circuits |
| Pricing / Flat rate ECCs | Increase in category 2 to 4 circuits as prices become more attractive |
| Substitution of low bandwidth Ethernet circuits for NGA | Difficult to predict |
| Openreach proactive network build policy changes | Increase in category 1 circuits |

[20] The legacy Ethernet services referred to are WES, BES and WEES products.

87. Future category mix is therefore uncertain, and it would be incorrect for Ofcom simply to assume that the pattern evident in recent years will inevitably continue during the period of the next control.

88. Given this uncertainty, together with the potentially significant impact of a future change in category mix on Openreach's ability to meet Ofcom's proposed minimum standards, it is right that Ofcom change the composition of the minimum standards to explicitly account for changes in category mix. This would provide the greatest certainty to all parties during the new control without diminishing the likelihood of Ofcom's policy objectives being met. We discuss this point in more detail below in the response to Questions 13.12 and 13.13.

**Repair performance**

89. We agree with Ofcom that Openreach's repair performance has been delivered at a consistently good level of performance (typically in excess of 90%).

**Ofcom conclusions**

90. We agree with Ofcom that there has been deterioration in performance in relation to the length of time taken to deliver circuits that require new network build.

91. However, we consider that Ofcom's assessment in relation to certainty of delivery, where the number of date changes is equated with Openreach performance, is too simplistic and is inadequate for the purposes of specifying new minimum standards. For example, Ofcom has conducted no assessment of Openreach's historic performance using the same measure that it is proposing for the certainty minimum standard in order to establish a baseline of performance against which to impose the minimum standards. This assessment should be undertaken in order to assess how achievable Ofcom's proposed minimum standards are likely to be. We set out further comments in relation to this point in the response to Question 13.11.

92. As noted in our response to Question 13.1 above, we agree with Ofcom that there is no evident bias between the performance of circuits purchased by BT and non-BT customers, and that there is no evidence that orders purchased in conjunction with Project Services have received favourable treatment. In this respect we note and support Ofcom's conclusions as set out in paragraph 13.66 of the BCMR Consultation.

***Question 13.3: Have we accurately captured the reported impact of poor performance? If not, please explain why and provide us with any further supporting evidence.***

93. As Ofcom's own analysis demonstrates[21], it is difficult to be confident about the precise level of additional costs incurred by CPs that could be reasonably attributed directly to any decline in the underlying level of service being provided by Openreach.

94. Ofcom should treat CP submissions that assert a high level of precision in relation to this question with caution. We are concerned that this question could lead to assertions of spurious accuracy and that in the circumstances of the BCMR Consultation there are incentives for CPs to artificially inflate the impact (in terms of cost) of Openreach's service performance.

95. The approaches taken by CPs in dealing with service issues vary significantly. In some cases the actions taken by the CPs themselves can lead to an inflation of the (often inefficiently incurred) costs borne by them and by Openreach.

96. [✂]

97. [✂]

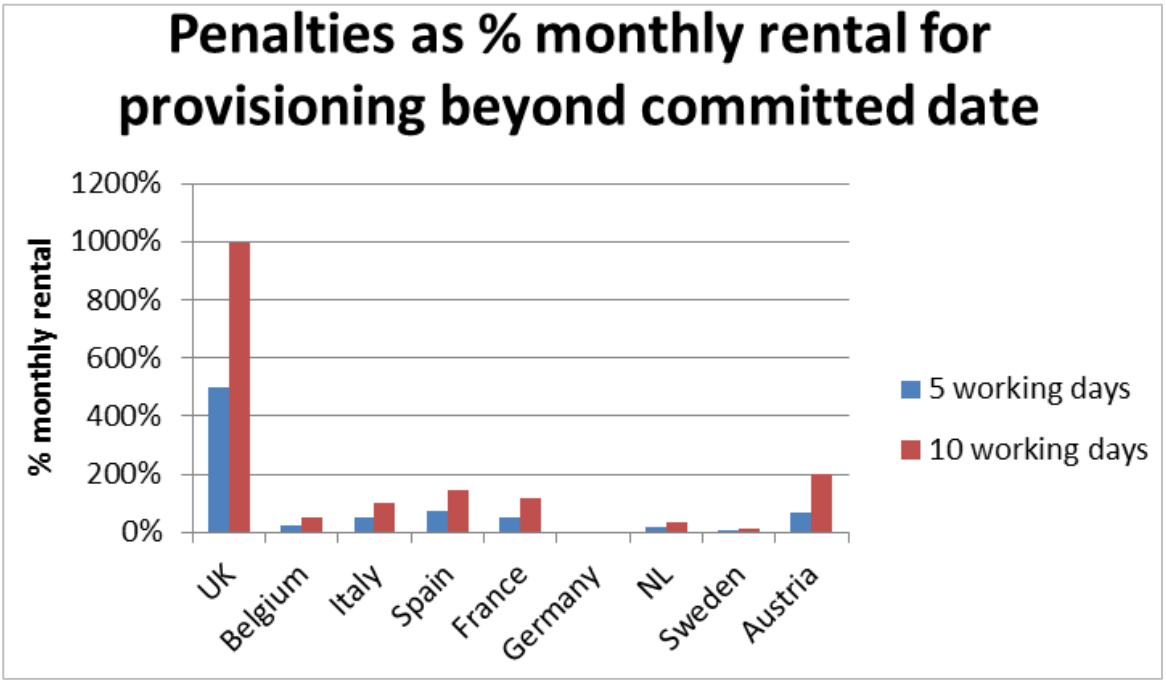
98. It is therefore important that Ofcom recognises that the conduct of CPs themselves can influence the additional costs they incur, and that sometimes the approach taken by CPs can lead to incremental costs that are inherently inefficient and avoidable.

99. Further, Ofcom has not recognised in its assessment that the additional costs incurred by CPs in managing service related issues are in part already accounted for in the SLG payments that Openreach makes to CPs when specified service levels are not met.

100. As set out in Figure 10 below, when specified provision service levels are not met, Openreach offers by some distance the most generous SLG payments in Europe. Openreach has commissioned WIK-Consult to conduct further analysis in relation to the SLA/SLG schemes, and this analysis is set out in Annexes A and B to this document.

[21] BCMR Consultation (May 2015), para. 13.86.

***Figure 10 – Provision SLG quantum European benchmark***




*(Source: WIK-Consult, 2014)*

101. SLGs are a form of liquidated damages that should provide a reasonable pre-estimate of average loss in the event of a specified service level being breached (e.g. a service being delivered late). In our view the existing quantum of the Openreach provision SLG already takes account of the likely CP costs incurred when service levels are not met, including additional costs relating to customer care.

102. Ofcom should recognise that Openreach SLG payments already make an allowance for reimbursing CPs for costs incurred where there is a failure by Openreach to deliver to contracted service levels. If Ofcom were to give any further weight to the CP submissions on this subject, Openreach should be afforded the opportunity to review the redacted CP submissions and provide its own comments as to their reasonableness.

103. Ofcom acknowledges that they have not been able to quantify the effects of Openreach service performance on competition. It is therefore strange that Ofcom then goes on to provisionally conclude that "…*it is unlikely that the impacts of Openreach's performance has had no effect on competition at the retail level*" [22] without offering any further evidence to substantiate this assertion.

104. Given the importance of this question, it is surprising that Ofcom has not conducted more analysis to substantiate the effects of lower levels of service performance at the wholesale level on competition within retail markets.

105. Further Ofcom analysis could also review the level of Openreach SLGs that are passed on to end customers by retail CPs.

[22] BCMR Consultation (May 2015), para. 13.87.

***Question 13.4: Do you agree with our assessment of Openreach's incentives to deliver acceptable Ethernet provisioning quality of service? If not, please explain why and provide us with any further supporting evidence.***

106. Although we understand why Ofcom has provisionally concluded that additional remedies are required to provide Openreach with the necessary incentives to provide Ethernet service at acceptable levels on a consistent basis, we do not agree with all aspects of Ofcom's assessment.

**Commercial incentives**

107. Ofcom's assessment of Openreach's commercial incentives is too narrow, and therefore fails to acknowledge that in reality the commercial incentives to deliver good levels of service are significant.

108. Ofcom's assessment of the net present value impact at an individual circuit level looks to be broadly accurate. However, analysing the impact of a single circuit does not adequately capture the size of the effect when in reality it would apply to thousands of circuits during periods of extended lead times. For example, Openreach estimates that improving average circuit lead time performance by 1 day would deliver £1 million additional annual revenue.

109. The total volume of Ethernet orders that Openreach is able to complete and therefore raise a bill for is of critical importance to Openreach's ability to meet its commercial targets, and the annual budget setting process consequently includes Ethernet completion targets which are regularly monitored by senior management.

110. In 2014/15 Openreach underperformed against its Ethernet revenue target.
[✂]

111. As Ofcom is aware, Openreach has already embarked on a comprehensive programme to deliver sustainable improvements to Ethernet provision performance. More detail of this plan is covered in the response to Question 13.9. Some of the key components are:

- recruitment of more than 1,000 FTE between Q2 2014/15 and Q2 2015/16;
- DOJ programme roll-out;
- investment in re-launch of EMP;
- engineering single visit;
- controls transformation; and
- proactive order management.

112. This improvement programme commenced in advance of Ofcom's consultation proposals and was initiated because there were powerful commercial incentives for Openreach to increase its capacity throughput by delivering circuits more quickly and not in anticipation of future regulatory minimum standards.

113. In reality there are therefore significant commercial incentives for Openreach to ensure that it is able to deliver good levels of service. These incentives existed in advance of the BCMR Consultation and will continue to exist during the period of the new control.

114. These commercial incentives are not adequately captured in Ofcom's assessment, rendering it incomplete.

### Contractual and regulatory remedies

115. As Ofcom correctly sets out, there are a number of existing regulatory and contractual remedies already in place, including the terms set out in the CSA.

116. Ofcom's provisional conclusion that the Reference Offer has no incentive effect with regard to maintaining quality of service is incorrect. For example, the Reference Offer sets out *inter alia* details of how and when Openreach is contractually able to amend the CDD by use of deemed consent. This is an important factor in governing how deemed consent is applied and clearly sets out the terms on which Openreach and CPs contract on this matter.

117. In this respect, the Reference Offer provides certainty on the rules of engagement and provides CPs with recourse in circumstances where they consider that Openreach has not met the standards required of it.

118. Ofcom accepts elsewhere in the BCMR Consultation document that publication of relevant performance KPI data to external audiences forms a key part of the incentives for Openreach to maintain service standards at acceptable levels.[23] Openreach agrees with this position, and it is therefore surprising that Ofcom underplays the role of existing KPIs in its assessment of the incentives.

119. Openreach has a policy of being transparent in relation to its Ethernet performance as evidenced in the breadth, depth and regularity of the KPI reporting already in place, including:

- monthly service updates available to industry that include very granular speed reporting and cuts of the data with and without customer delay by circuit category;
- monthly detailed reporting on various aspects of Ethernet performance that has been provided to Ofcom since autumn 2013;
- service calls with customers every 2 weeks since September 2014 hosted by senior Openreach managers;
- service management forum held with customers monthly;
- bilateral service reviews with customers, covering performance reporting that is specific to the CP; and
- publicly available reporting provided on a voluntary basis since autumn 2014, covering speed performance showing the overall elapsed time from order validation to circuit completion along with data relating to repair performance.

120. Ofcom has not taken proper account of the considerable level of transparency that Openreach already provides to CPs and end customers, the vast majority of which is done on a voluntary basis. This policy of transparency gives stakeholders the opportunity to scrutinise and critique Openreach's performance – including in relation to speed of delivery, certainty of delivery and repair performance. By highlighting problem areas at an industry or individual CP level this policy of transparency has also helped to focus improvement initiatives such as those relating to certainty of provision, and those aimed at improving significant causes of delay (whether Openreach or CP based).

121. In relation to Ofcom's comments on performance reporting against CDD performance, Openreach has actually been reporting against the performance to initial CDD measure since August 2014. We note that this measure is itself not aligned to Ofcom's proposed certainty minimum standard as it includes all forms of delay, including delays attributable to customers. Openreach has also been reporting performance on the 'Customer Promise Date' (CPD) since

[23] BCMR Consultation (May 2015), paras. 13.225-226.

August 2014[24]. This measure is more closely aligned to Ofcom's proposed minimum standard for certainty.

122. Ofcom's overall conclusions on this topic are not fully substantiated, particularly because they do not appear to be based on a proper assessment of the level of detail about service performance (as summarised above) that Openreach has been providing over time. Even if Ofcom were to conclude that the CDD KPI has only been meaningful since reporting against the initial CDD was introduced, there is no basis for the same conclusion being drawn for other relevant measures including speed and repair performance.

**Incentives from the existing SLA/SLG regime**

123. As noted in our response to Question 13.3 above and detailed in Annex A to this response, the Openreach SLA/SLG scheme contains the most generous payment levels in Europe when the provision service level is missed. This clearly creates an incentive for Openreach to deliver service on the CDD provided.

124. Ofcom states that the incentive properties of the scheme may be undermined by Openreach's ability to set longer lead times and move the CDD. This assessment fails to recognise that under the existing CSA the standard lead time for Ethernet circuits is 30 working days, and that extending the lead time beyond this date requires the application of deemed consent. Within the contract the application of deemed consent is itself subject to various rules to ensure its proper application.

125. Openreach recognises that there are industry concerns and dissatisfaction in relation to deemed consent, and the DOJ programme has been developed with this in mind. That said, it is reasonable that Openreach should be able to protect its potential financial exposure in circumstances where it is not at fault. We also note that it is standard practice across key European jurisdictions for operators to include contractual provisions that enable them to reasonably manage their financial risk in specified circumstances. Further detail in relation to this is provided in Annexes A and B to this response.

126. We do not support Ofcom's speculation that the existing scheme is at risk of being circumvented by the uncontrolled use of deemed consent in particular because Ofcom offers no analysis to support this assertion and as noted above, there are inherent protections already provided for in the CSA.

127. In summary we consider that Ofcom has underestimated the significant incentives that already exist.

[24] Customer Promised Date: the first date provided to the customer, excluding any customer caused delay that occurs before Openreach caused delay.

***Question 13.5: Do you agree that it is appropriate to exclude customer caused delays from the minimum standard performance measures for provision activities? If not, please explain why.***

128. Openreach strongly supports this proposal as the only proportionate, fair and reasonable course of action available for the treatment of customer delays.

129. Customer delay is a significant factor that impacts certainty of delivery and speed of delivery. This is because the 'customer' (whether the CP, a third party working on behalf of the CP or the end customer) is a critical part of the Ethernet provision value chain. Figure 11 and Figure 12 below set out the significance of deemed consent (i.e. post provision of the initial CDD) associated with customer delay over time along with the average delay incurred when different forms of customer delay apply.

***Figure 11 – Proportion of orders subject to customer delay***

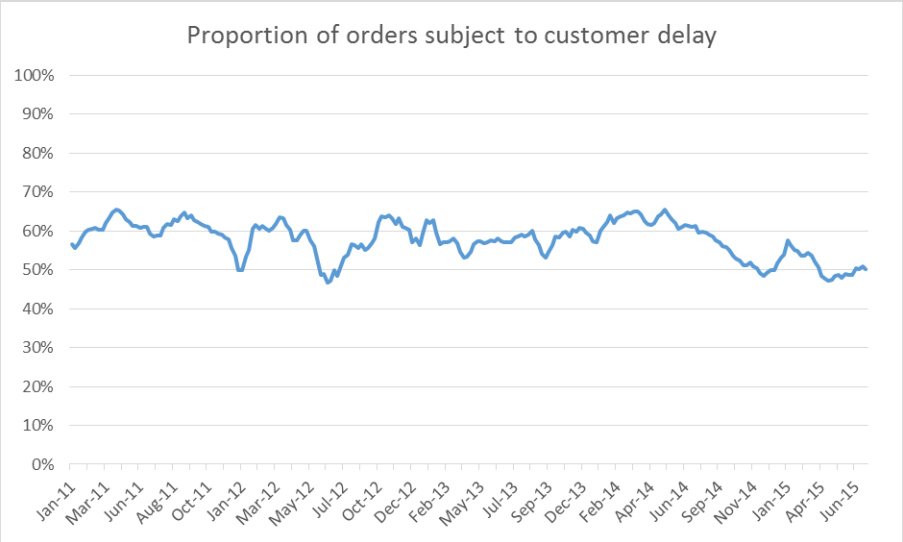
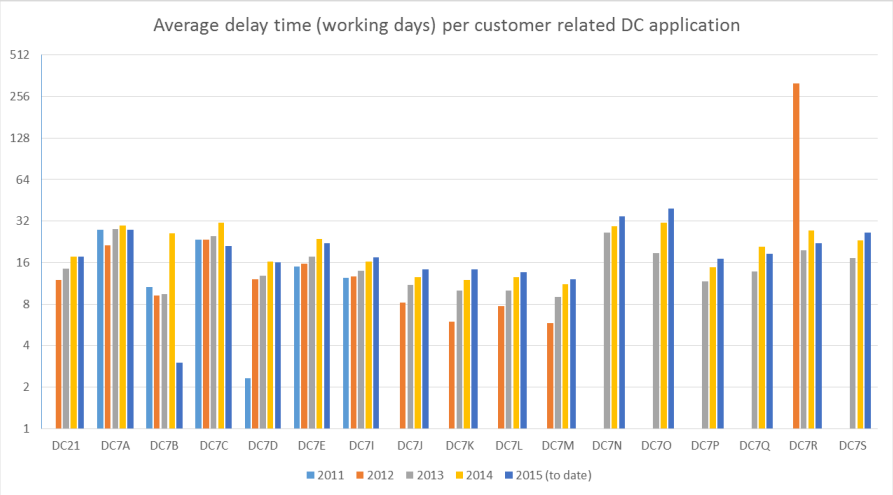



***Figure 12 – Average delay time per customer related deemed consent application***




130. In relation to the provision journey, customer delay occurs both pre and post KCI3, i.e. during the planning and field delivery stages respectively. The composition of the Ofcom minimum standards should reflect this and ensure that all customer delay is removed from the measures. This will ensure that the measures imposed by Ofcom do not include factors that are outside of Openreach's control, and so better reflect the level of Openreach performance.

131. It is important to note that Openreach has done significant amounts of work with CPs to help (where possible) improve their management of customer delay, and thereby reduce its overall impact on order delivery.

132. For example, Openreach continues to hold workshops with CPs specifically in relation to mitigating the impacts of customer access related issues. It is in Openreach's interests that customer delay is better managed by CPs and their agents as this would improve the overall end-to-end speed of circuit delivery (and hence bring forward Openreach revenue activation). It would also help to reduce the significant levels of wasted engineering effort associated, for example, with attending end customer premises but being unable to gain access. Openreach will continue to work with CPs to explore future opportunities for them to better manage the parts of the provision processes that are within their control.

133. Similarly, Openreach also delivered a significant reduction to the level of delay associated with obtaining CPs acceptance of ECCs by introducing a 'flat rate' ECCs charging policy in June 2014 that covers the large majority of Ethernet orders.

134. Ofcom is correct in its assessment that including customer delay within the proposed measures could lead to 'gaming' by CPs. Including customer delay within the minimum standards would undermine both the relevance of the minimum standards as measures of Openreach's underlying performance and would impose all of the risk on Openreach without affording it the ability to reasonably mitigate that risk.

135. Given that CPs play an important role in the end-to-end delivery of services to end customers it is important that CPs' incentives to manage their part of the process efficiently are maintained. For example, CPs facilitate access to the end customer site and need to ensure that the site is ready for installation work to proceed. Excluding customer delay from the composition of the minimum standards maintains that incentive.

136. There is protection within the existing CSA to ensure that Openreach applies deemed consent accurately and only in specific circumstances. Openreach also runs quality checks to ensure the accuracy and fairness of deemed consent application by the job control teams. Those teams are provided with guidance setting out the rules of application that they are required to adhere to.

137. Where CPs have concerns with the application of the process, they are also able to challenge individual deemed consent applications via an easily accessible challenge process with their Openreach job controllers in which challenges are evaluated and typically dealt with in a matter of days.

138. Finally, as part of the DOJ project that Openreach has been developing with significant CP input, there will also be further granularity provided in relation to how and when date management is applied, while the use of category based lead times that are based on analysis of historic performance in order to set the initial CDD should enable a significant reduction in the level of deemed consent application that is applied in a DOJ environment.

139. In conclusion, Ofcom is right to exclude customer caused delays from the measures. This will enable the measures to better reflect Openreach's underlying service performance. Any other approach would give Openreach responsibility for factors that are outside of its control, would be disproportionate and incentivise the wrong behaviours across the overall delivery value chain.

***Question 13.6: Do you agree that it is appropriate to include the "non-customer" delays (also including Third Party delay in Openreach data) in the minimum standard performance measures for provision activities? If not, please explain why***

140. Openreach does not agree with this proposal as currently set out. We consider that including all of the non-customer delays in the composition of the minimum standards is disproportionate because it makes Openreach responsible for a group of factors, regardless of whether they are within its control or not.

141. Openreach agrees that the following deemed consent codes, which are included in Ofcom's 'non-customer' constituency and are in general related to status of the Openreach network, are Openreach's responsibility to manage:

- DC 22 (Need for infrastructure build);
- DC 23 (Cable or exchange breakdown);
- DC 24 (Collapsed, blocked, or damaged duct / manhole);
- DC 28 (Security clearance is required but not yet agreed);
- DC 29 (Main frame compression or extension is required); and
- DC 7H (Scheduled service outage).

142. There are two non-customer deemed consent codes that are not fully within Openreach's control in that they are subject to health and safety considerations / legislation, and where a very careful process needs to be followed to ensure appropriate protection of individuals:

- DC 26 (Manhole or footway box that is contaminated and needs special treatment); and
- DC 27 (Asbestos has been identified).

143. Finally, there are elements within the non-customer group that are largely outside of Openreach's direct control and that should not be included in the minimum standards:

- DC 25 (Notice required under the Traffic Management Act or Traffic Scotland Act);
- DC7F (Customer wayleave required); and
- DC 7G (Force Majeure event).

144. When they occur, such events can have a significant impact on order progression. As set out in Figure 7 and Figure 8 above, the most significant of these delays, in terms of the level of delay to individual circuits, are associated with DC 25 and DC 7F. As set out in more detail below, and in the responses to Questions 13.12 and 13.13, wayleaves and traffic management have the greatest impact in relation to circuits that take the longest time to deliver (e.g. those at the 97$^{th}$ percentile of speed performance), where multiple and / or extended wayleave and traffic management requirements often apply.

145. These delay types exist when circuit delivery requires road closures or build activity to be conducted across privately owned land. They are therefore particularly prevalent in relation to circuit types that require new network build as shown in Table 5 below.

***Table 5 – Proportion of circuits affected by DC25 and DC7F***

| | Category | 2014 | 2015 (to date) |
|---|---|---|---|
| **% of circuits subject to DC25 (traffic management)** | 1 | 0.6% | 0.2% |
| | 2 | 6% | 5.1% |
| | 3 | 30.1% | 27.2% |
| | 4 | 2.2% | 0.1% |
| | | | |
| **% of circuits subject to DC7F (wayleaves)** | 1 | 0.4% | 0.4% |
| | 2 | 6.6% | 8% |
| | 3 | 16.7% | 19.6% |
| | 4 | 1.3% | 1.7% |

146. Both of these delay types require Openreach to obtain permission from third parties in order to progress circuit delivery. For DC 25 permission is typically obtained from local authorities, and for DC 7F permission is typically obtained from private landlords.

147. Although Openreach is involved in the process, in that it bears responsibility for identifying the need for wayleave / traffic management requirements, and for submitting requests to the third parties, this is typically a minority element in the overall end-to-end delay. The majority of delay is associated with the permission being granted by the third party after the request has been made. To note, Openreach continues to try and improve the parts of the process that it can influence. For example, we recently ran a 'deep dive' at the Ethernet Service Forum on the subject of wayleave applications, and this resulted in a number of amendments / improvements to the application process.

148. However, Openreach is not in control of the time it takes the grantors to provide permissions after the request has been made. For DC 25 requests the timescales are typically governed by the rules adopted by the relevant local authority. These can vary between different local authorities and also be determined by other factors outside of Openreach's influence such as how many requests (potentially across a range of industries) the local authority is dealing with, or how efficient the relevant local authorities' processes are in dealing with requests. It is also frequently the case that local authorities will apply a fixed time period to granting traffic management permissions after receiving an application. In such cases, there is limited scope for any supplier to negotiate reductions to the time period stipulated.

149. Finally, and as set out in more detail in the responses to Questions 13.12 and 13.13, delays associated with obtaining traffic management and wayleave permissions are particularly prevalent in relation to the most challenging to deliver circuits, including those at the 97$^{th}$ percentile of speed performance.

**More detail in relation to traffic management**

150. There is a wide range of different types of permissions that may be needed in relation to traffic management. For example, permissions may be needed for installation of two-way lights, lane closure, road closure, road diversions, suspension of pedestrian crossings, parking bay suspensions, bus stop suspensions and footpath closure. These all require differing legislative notice periods.

151. Until 2012, the simplest permissions (for example, installing two-way lights) could be simply notified to the highways agency department of the relevant local authority. This is no longer the

case, and all traffic management requests now require permission to be obtained. This means that there has been a systematic worsening of the level of time, cost and effort to manage these issues since the 2011 base year used by Ofcom in the setting of the speed minimum standards.

152. The more complex / intrusive works, such as road closure, require a 'Temporary traffic regulation order' (TTRO) to be granted. The timescales for providing TTRO permissions are much longer than the simpler requests because the local authorities undertake a number of additional activities, such as notifying local media and notifying local emergency services.

153. When applying for traffic management, there is complete reliance on the local authority to agree the request. There are significant differences across the country in terms of the level of detail required in applications, and the compulsory notice periods. This can mean that the associated delays in getting traffic management granted can be variable across different geographies.

154. The timescales followed by different local authorities in relation to the various types of permission vary significantly. Openreach recently reviewed such timescales. Table 6 below sets out the different time periods that highways agency departments can take to issue notice, as well as the time from issuing such notice to the start of works.[25]

***Table 6 – Overview of Traffic Management consent timescales***

| **Example of traffic management required** | **Ranges of highways agency stated response times to issue notice** | **Ranges of notice periods between issue of notice and start of work** |
|---|---|---|
| Lane closure | From 10 working days<br>up to 6-8 weeks | From 1-2 weeks<br>up to 3-4 months |
| Multiphase traffic lights | From 10 working days<br>up to 5 weeks | From 10 calendar days<br>up to 6 weeks |
| Bus stop suspension | Not specified | From 1 – 8 weeks |
| Pedestrian crossing suspension | Not specified | From 3 – 21 working days |

*The middle column is the period for the highways agency to process the request. The last column is the time period before work can commence.*

155. These lead times can also vary based on a number of other factors, such as whether the part of the road in question is on a bus route, if it is near to a railway crossing or if the area in which work needs to take place is traffic sensitive. The notice period required and lead times for requests being approved can also depend on the amount of time that the works themselves will take and the timing of payments. There is also a variance in how efficient local authorities are in processing requests once received. For example, some local councils want to inspect a site before giving approval, while others do not require this.

156. Other differences exist in the approach taken by local authorities which can also impact timescales. For example, Transport for London (TfL) has very specific requirements for complex drawings to be presented as part of traffic management applications. These requirements cover the whole of Greater London, and not just the area covered by the Central London Area (CLA).

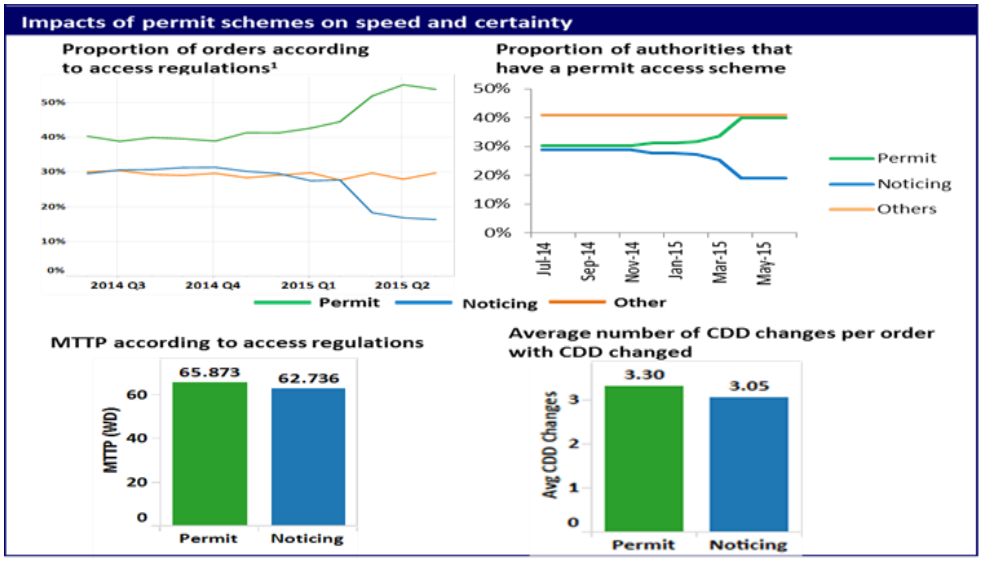
[25] These ranges provide an indicative view of time periods. However, note that some local authorities may take even longer.

157. There are also external factors that impact Openreach's ability to have traffic management requests accepted in the timescales required. Utility firms may be working in the area, and therefore even if Openreach give sufficient notice the initial application may be declined or delayed.

158. It is not always possible to assess the amount of delay from traffic management at the point when the initial CDD is provided to the customer. For example, existing cabling may need to be assessed before completing the traffic management survey or request, which may result in finding duct blockages which could not have been reasonably foreseen. The blockages would have to be remedied by civils contractors and traffic management would have to be granted. Once the blockages were cleared, traffic management would have to be applied again for the further work, and thus further delays would be encountered. A provision order may require traffic management authorisation at several different points during the process and each of these would add delay time to the overall duration.

159. Since 2014, a growing number of local authorities also require permits to be obtained for traffic management activities. Where such permit schemes exist, the permits need be obtained in addition to the permissions outlined above. The number of local authorities that use permit schemes, along with the proportion of circuits that are affected by permit schemes have both increased significantly over the last year. Where permit schemes exist, there is a negative impact on the lead time and certainty performance of the circuits that are impacted. These effects are shown in Figure 13 below. This represents a further systematic worsening since the 2011 base year used by Ofcom to set the speed minimum standards.

***Figure 13 – Impact of permit schemes on lead times and certainty[26]***




160. Openreach acknowledges that it is responsible for elements of the end-to-end process for traffic management, and is taking a number of steps to make improvements where possible, including:

- training and briefing the planning teams to ensure where possible that traffic management requirements are identified at the planning stage;
- working with local authorities to improve process for applications;
- managing, where possible, different requests in parallel rather than in series;

[26] The 'other' classification means the process used by the local authority is unknown. Orders in scope are closed provide and re-grade orders from July 2014 to June 2015.

- developing a detailed view of the different approaches (including the lead times for granting various types of permissions where available) taken by the different local authorities in relation to traffic management to assist in accurate lead time estimation; and
- applying for 'early starts' where possible to reduce delay associated with traffic management applications.

161. However, most of the end-to-end process is not within Openreach's control. In particular, Openreach cannot control the policies adopted by local authorities in terms of timescales, nor can we force different local authorities to adopt the same best practice approach.

162. As noted above, we do accept that a part of the process (i.e. identifying the need for traffic management and applying for permissions), is within Openreach's control, and that Openreach should liaise with grantors in a timely manner. However, this part of the process is also influenced by the conduct and efficiency of the grantor.

163.

[✂]

**More detail in relation to wayleaves**

164. For wayleave requests (DC 7F) the experience is even more variable because of the difference in the type of the grantors. These range from private individuals to large corporations, and in both cases the grantors frequently use a wayleave request as an opportunity to commence negotiations, including in relation to remuneration.

165. There are two scenarios that are frequently encountered when applying for wayleaves, which illustrate the different types of grantor that Openreach deals with:

- The first scenario is where the end customer is located in a large office building, and a fibre needs to be run from the communications room to the floor the end customer is located on. The grantor in this scenario would be the landlord of the building. With this type of wayleave application, particularly in relation to those in larger buildings in major conurbations, the landlord will often pass the request to their legal representatives, and the latter will frequently set out terms that are outside of Openreach's standard wayleave request terms. These particular grantors are becoming more demanding and formal in their approach to providing permission and this inevitably leads to greater delay.
- The second scenario is where the end customer site is located on private land. The grantor in this scenario would be the land owner, where the permission sought would be to obtain a right of way (also known as 'easements' in property law) to conduct the necessary work involved in delivering the circuit. This scenario presents different challenges, including delay in making contact with the grantor, and grantors seeking additional money to provide permissions. Whilst the identity of a landowner of registered land can be ascertained from the Land Registry, further complications can arise when

the land is unregistered. This is because the identity of the landowner will not appear on the Land Registry if the obligation to register the land has not been triggered.

166. As in relation to traffic management, Openreach aims to improve those parts of the process that it manages. For example, we have been trialling the use of greater legal resource to deal with the applications where the grantor passes the request to their legal department and exploring where work can be conducted under a simpler 'permission to work' process.

167. Openreach is also pressing MNOs to play a greater role in relation to wayleaves required for delivery of circuits to mobile cell sites that are located on private land, and where we believe that the 'easement' required is already inherent within the MNO cell site lease. In these circumstances, an additional wayleave application may therefore not be required.

168. We note that that government has been considering a review of the existing Electronic Communications Code, and that such a review, once implemented, could offer a number of improvements to the current wayleave processes. However, the timing for such a review, along with any subsequent implementation is currently uncertain.

169. As with traffic management, there are large parts of the end-to-end wayleave process that are not within Openreach's control, and in consequence it is not reasonable for Openreach to carry the entire end-to-end risk associated with such applications.

**Conclusion**

170. We consider that Ofcom's analysis in relation to non-customer delay has been inadequate and in consequence its proposals on this subject are inherently unfair and disproportionate. The current proposals place the entire risk and responsibility for managing these delays on Openreach even in relation to matters that are outside its control. This introduces a real risk that Openreach will fail to meet minimum standards due to exogenous factors.

171. Ofcom should re-consider the inclusion of all non-customer delays in the minimum standard performance measures for provision activities and conduct a more detailed evaluation. If Ofcom does this, it will recognise that non-customer delay is not homogenous: although a group of delay types under the non-customer umbrella is largely within Openreach's direct control, another significant group is to a large extent outside of Openreach's control, and not always fully foreseeable in the planning stages of the order. This needs to be recognised in the specification of the minimum standards.

172. It would be more proportionate for Ofcom to only include those delay types (i.e. DC7H, DC22, DC23, DC24, DC28 and DC29 as set out above) that are largely within Openreach's direct control and exclude those delay types that are largely outside of Openreach's control. Should Ofcom include those delay types that are largely outside of Openreach's control, it should only include the element that relates to application of the permission and not the element that is within the control of the third party.

173. Openreach is happy to discuss options that would enable a more accurate understanding of what elements of traffic management and wayleaves are within Openreach's control, and those that are not.

***Question 13.7: Do you agree that it is appropriate to include delays due to events covered by MBORC declarations in the minimum standard performance measures for provision and repair activities? If not, please explain why***

**Ethernet Services and MBORC**

174. Matters Beyond Our Reasonable Control (MBORC) declarations are used to reflect conditions that affect the service Openreach offers which are outside of Openreach's control. Causes of MBORC include extreme weather conditions (e.g. severe flooding, icy conditions, heavy snow, high winds) as well as fire, third party damage to cables or cable theft affecting our network infrastructure or our engineers' ability to work. Major incidents affecting Openreach network (e.g. exchange fire) can also result in serious damage to our infrastructure.

175. Cable theft (with resulting collateral damage to fibre cables that are either cut through to get to the copper cables or stolen because they are mistaken for copper cables) remains a serious problem for Openreach and it requires constant vigilance because the indiscriminate nature of attacks means that the impact of a single incident can be very damaging for communities and businesses. Openreach has many effective security measures that help to address the serious problem of cable theft affecting the network across the UK. For example, Openreach works closely with the police to identify and tackle this crime, and Openreach and has invested in a number of coordinated prevention methods to proactively tackle cable theft. The whole of our network is alarmed and monitored 24 hours a day, providing notification to the Police of any unlawful cuts to our cables and we have introduced new and innovative anti-theft technology and teamed up with outside agencies such as the charity Crimestoppers to gather intelligence from the public and ensure criminal convictions.

176. We continue to work with other organisations, such as the National Crime Agency, British Transport Police and Network Rail, to try and tackle this problem together. We have an established Metal Theft Task Force and through working closely with the police, we have developed proactive, intelligence-led operations that mean we are able to crack down on the individuals and organised criminal gangs who attack our network.

177. Openreach also operates a strict governance process to oversee when it is appropriate to invoke MBORC declarations and when it is appropriate to remove MBORC declarations. MBORC is and will continue to be a factor that impacts Openreach's ability to deliver or restore service.

**Provision activities and MBORC**

178. Under the current provision process, when MBORC is invoked that impacts the provision of Ethernet services, the CDD of the affected orders is amended using deemed consent (DC7G). Completion of the circuit to the applicable service level is then based on our ability to meet the amended date or any other amended date if the order is subject to further application of deemed consent.

179. Ofcom is proposing that, as part of the design of the minimum standards for provision, MBORC related delays are included in the calculation of the minimum standards in the same way as it is proposing to include, more generally, all non-customer caused delays in the minimum standards.

180. As stated in our response to Question 13.6, we consider that including non-customer delays that are largely or entirely outside of Openreach's direct control to be disproportionate. Although Ofcom's analysis suggests that MBORC related delays made a very small

contribution to the number of lead-time changes for each category of orders, and an equally small contribution to the delays incurred by these orders[27], when MBORC is declared it could have a significant impact on order progression. For example if a spine cable over which an Ethernet service was supposed to be delivered was damaged by a third party, the job would need to be re-planned to see if new infrastructure needed to be provided or if it could be provided using existing capacity elsewhere.

181. Openreach operates a tightly controlled process for the application of MBORC. Openreach would therefore not use MBORC declarations to address potentially minor minimum standard non-compliance issues or become less rigorous in its application as suggested by Ofcom[28].

182. If Ofcom does decide to include delays associated due to events covered by MBORC in the minimum standard for provision, Ofcom should take the same approach as in the FAMR and set a cautionary MBORC allowance for provision of 1%[29] to ensure Openreach is not unfairly penalised for events it cannot control.

**Repair activities and MBORC**

183. Ofcom is proposing that, as part of the design of the minimum standards for repair, MBORC faults that fail their 5 hour repair SLA are included in the calculation of the minimum standard.

184. The fault data Openreach provided Ofcom for the period 2011 to July 2014 includes MBORC data (volume of faults that failed their 5 hour repair SLA and were subject to MBORC (referred to as "MBORC declarations")) which shows that over the period, faults that failed their 5 hour repair SLA and were subject to MBORC represented between 1.63% and 2.46% of total faults completed over the period (2.23% across the whole period).

185. Although the proportion of faults subject to MBORC is relatively low, these instances are also inherently variable and by definition unpredictable both in terms of how many events will occur and how severe these events will be.

186. If Ofcom does decide to mandate a minimum standard for repair to include MBORC, Ofcom should also set an MBORC allowance for repair to ensure that Openreach is not unnecessarily penalised for events it cannot control. Based on the data already provide to Ofcom, we estimate that this allowance should be set at 2.5%.

[27] BCMR Consultation (May 2015), Annex 17, para. A17.134 and figures A17.12 and A17.13.

[28] BCMR Consultation (May 2014), para. 13.130.

[29] FAMR statement (June 2014), para. 11.227.

***Question 13.8: Do you agree that it is appropriate to apply the minimum standards nationally? If not, please explain why.***

**Comments in relation to provision**

187. We support the Ofcom proposal to apply the minimum standards at a national level where BT has SMP. This approach will give Openreach the operational flexibility needed to best cater for often unpredictable and localised demand spikes, where a regional model could require Openreach to resource to inefficiently high levels to provide the assurance of the minimum standards being met.

188. A regional model would need to allow Openreach to recover the additional costs incurred, with a consequential impact on the regulated prices charged. This would require further evaluation to be conducted in advance of regulation being imposed.

189. In summer 2015 Openreach reorganised its regional delivery teams to optimise flexibility across Great Britain and help drive consistent performance across the regions. These regions have changed since Ofcom's consultation and are:

- North & Scotland;
- Wales & South West;
- London & East; and
- Northern Ireland.[30]

190. Ofcom is correct to state that given the volumes of Ethernet orders, applying minimum standards at a more granular (e.g. regional) level may include statistically invalid sample sizes.[31] This problem was not present in the FAMR (where Ofcom imposed minimum standards on a regional basis) because of the significantly higher volumes present in relation to WLR and MPF when compared with the market for Ethernet services.

191. The volumes of the Ethernet products against which Ofcom is proposing to impose minimum standards are tiny when compared with the equivalent volumes for the products in the FAMR against which minimum standards were applied. The Ethernet volumes are even less significant when assessed on a regional basis.

**Forecasting**

192. Assessing future levels of demand for Ethernet services is a key consideration in relation to Openreach's ability to consistently deliver specified levels of service performance. This is because Openreach can only understand the level of resource it will need, and when and where that resource will be needed, through accurate demand forecasting.

193. It takes Openreach on average 4.5 months from recruitment to deployment of fully trained and effective resource into the field. This makes the need for effective short-medium term demand forecasting even more imperative.

194. In developing its market forecasts, Openreach develops a total market view of future demand by analysing historic demand, conducting market analysis to assess overall growth potential and by obtaining insight from Openreach sales teams and also from CPs direct.

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[30] The delivery organisation in Northern Ireland is not part of Openreach.

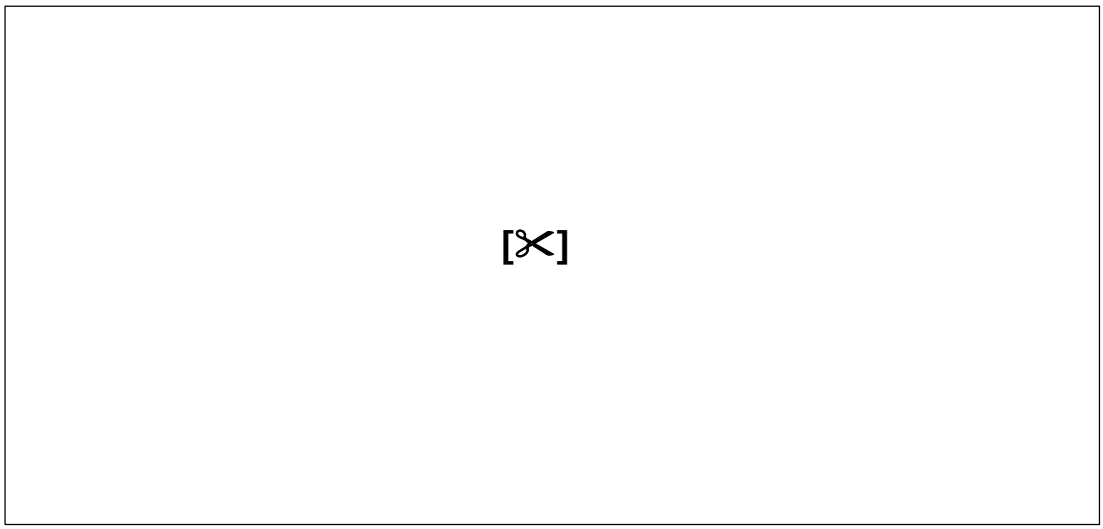
[31] BCMR Consultation (May 2015), para. 13.134.

195. CP forecasts are required under the terms of the CSA.[32] Despite this, the current industry Ethernet demand forecasting regime is not optimised. This is because not all CPs provide forecasts, and the accuracy and quality of the forecasts that are provided is mixed. In consequence, the Openreach industry forecasts lack sufficient CP insight.

196. This is particularly problematic in situations where un-forecast CP demand drives a spike in orders above the total level that Openreach is resourced to meet (whether at a national or regional level), since such eventualities cannot be anticipated solely through the use of statistical or market level analysis.

197. As shown in Figure 14 below, the levels of demand Openreach is currently dealing with are well above the level of Openreach's initial industry forecast and could not have been reasonably predicted using historic performance data or market analysis absent better quality CP forecasting insight provided in advance.

***Figure 14 – Demand versus forecast in 2015/16 to date***




198. CPs should be reasonably expected to have greater insight than Openreach into their own future demand forecasts and further work is needed to improve the consistency, breadth and quality of CP input to the industry forecast that Openreach relies upon.

199. In particular CPs need to be incentivised to give Openreach early insight into projects that are likely to drive significant new demand, and thereby to help avoid creating demand 'shocks' that impact service delivery for the whole of industry (not just the CP that is causing the demand increase). Openreach recognises that there are challenges for CPs in providing consistent accurate future demand forecasts, including, for example, where multiple CPs are bidding for the same large end customer contract or where the plans/timescales of a CP's own network build project change at short notice. Nevertheless, we consider that CPs are likely to have better insight on such matters than Openreach, particularly in relation to demand for circuits that are being used by the CP to build their own network (for example, in relation to an MNO network build project).

200. In late 2013, Openreach developed an approach to improve forecasting that it proposed to trial with industry. This approach was not adopted at the time due to resistance from certain CPs, but should be reviewed again at this time. The key features of the proposal were:

[32] Connectivity Services Contract Schedule 3 – Forecasting.

- applied to largest 10 CPs (measured by volume of orders);
- Openreach would provide detailed historic demand information to the CPs to assist them in forecasting;
- CPs would provide quarterly forecasts split by week, quarterly in advance;
- orders would be 'tagged' as outside of forecast (and could therefore be subject to date management) if CPs were 20% above their weekly forecast and as a consequence of the CP demand level this also placed Openreach 5% above its weekly aggregate industry forecast; and
- process to be regularly reviewed with the OTA2.

201. The purpose of the scheme was to enable Openreach to better manage un-forecast demand spikes that would otherwise lead to service degradation for all customers. By proposing to introduce date management only for orders that were in excess of the CP forecast and that would have led to a consequential impact on the overall industry forecast, the scheme sought to overcome valid CP concerns associated with multiple CPs bidding for the same end customer and / or inaccurate CP forecasts 'netting off' at an aggregate industry level.

202. In assessing Openreach's compliance against the minimum standards, Ofcom should consider removing from its assessment either (a) CP orders that are un-forecast and that lead to demand at an industry level going significantly above the prevailing Openreach demand forecast, or (b) CP forecasts that are highly inaccurate and that lead to demand at an industry level going significantly above the prevailing Openreach demand forecast. Openreach considers that such events should be best considered 'customer delay' and that it is not reasonable for Openreach to assume the risk for excess demand that it could not have reasonably forecast itself without the provision of additional CP insight.

203. Making this amendment would have a number of positive effects at an industry level by:

- incentivising better CP forecasting;
- preventing demand 'shocks' that cause deterioration in performance for all;
- allowing Openreach to plan with more certainty; and
- ensuring that the minimum standards were a truer reflection of Openreach performance, and based on factors within Openreach's control.

**Demand volatility**

204. Demand volatility is a major issue for industry in relation to Ethernet service delivery, and can significantly hamper Openreach's ability to provide consistently acceptable levels of delivery. Given the relatively low Ethernet volumes, this level of volatility is high at a national level, and becomes even more pronounced at a sub-national level as shown in Figure 15 and Figure 16 below.

***Figure 15 – Daily demand intake in 2015/16 to date (National)***

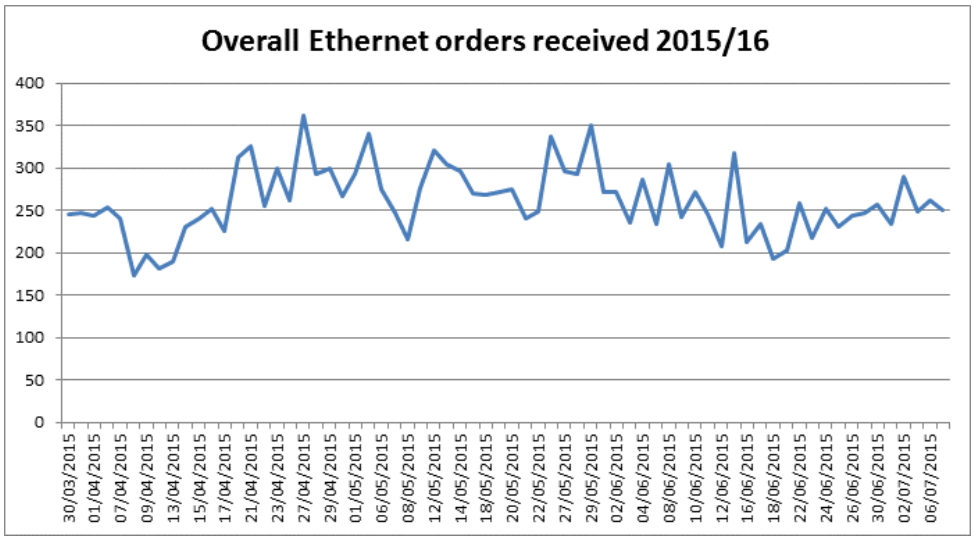
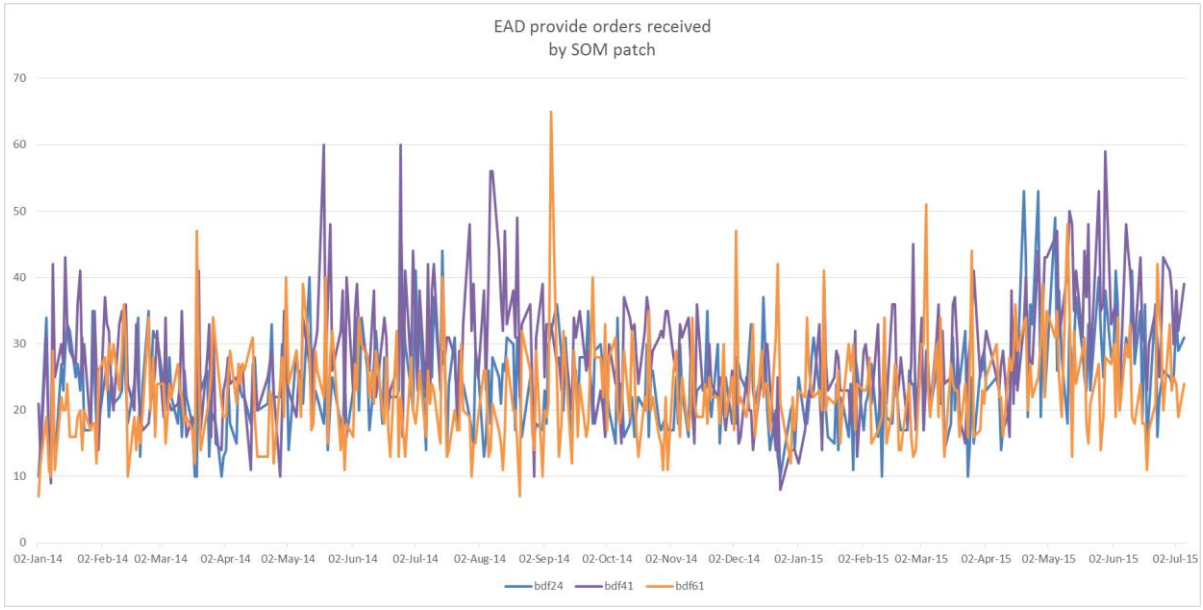



***Figure 16 – Ethernet demand at Senior Operations Manager (SOM) level Jan 2014 – July 2015***




205. This is an issue for Openreach, as it has to match demand volatility to its future resourcing strategy in a way that optimises delivery performance with the most efficient resourcing model.

206. Imposing the minimum standards at a regional level would exacerbate this problem, and would have the effect of incentivising Openreach to resource to an inefficiently high level within the regions in order to mitigate the risk of failing the minimum standards imposed.

**Conclusion**

207. Ofcom is right to propose that the minimum standards should apply nationally. If Ofcom were to change its approach to a regional model, it would also need to further assess the increase in costs associated with meeting such minimum standards and, following such an assessment, make an allowance for greater cost recovery than is currently envisaged within the LLCC proposals. Without these changes, a regional approach would not be proportionate. We also

consider that such an approach could not function without the need for a revision to the existing forecasting regime, and that the regime would need to include greater responsibility on CPs.

208. The current proposal will help to mitigate against the risks of increasing costs (and prices) and of statistically invalid sample sizes. It will also provide Openreach with the most flexible operational model to deliver consistently good levels of services across all of the regions in the most efficient manner.

209. Finally, we also note and support Ofcom's proposals to monitor Openreach's performance at a regional level. This transparency and oversight (which will also be available publicly to all stakeholders) will help mitigate against the risk of there being any regional bias.

**Comments in relation to repair**

210. In relation to repair, we also support Ofcom's proposals to apply the minimum standards on a national basis. Repair volumes for Ethernet are relatively small, and would lead to statistically invalid sample sizes at a regional level.

211. Repair can also be subject to localised spikes associated, for example, with incidents such as cable theft or damage to the network. As with provision, there is therefore a need for the operational flexibility offered by a national measurement, particularly given that the Openreach repair SLA is for a 5 hour fix 24 hours a day, 7 days a week, 365 days a year, and so relies on flexibility during day and night time hours (and where there are lower levels of attendance for the latter).

***Question 13.9: Do you agree with our proposals regarding the application of minimum standards over the three year period of this review? If not, please set out your reasons and alternative proposals.***

**Comments in relation to provision**

212. We support Ofcom's proposal to introduce the speed related provision minimum standards in a phased manner. This is the most proportionate approach given the significant work that needs to be undertaken to enable sustainable performance improvements, particularly in a market where demand is increasing, and where exogenous factors create difficulties for consistent service delivery.

213. The approach that Ofcom has taken in relation to setting the speed minimum standards is generally consistent with its broader approach (e.g. in relation to setting charge controls), which is to set a desired outcome at the end of the period, and to glide to that outcome over the period of the control. In this respect we consider that it would be more appropriate (given the need for Openreach to deploy a number of improvement initiatives that will take time to be fully effective) for Ofcom to set the desired outcome for the speed minimum standards at year 3 rather than year 2 of the new control, and to set the year 2 minimum standards at the midpoint between those imposed in years 1 and 3.

214. Although Ofcom's proposals for the certainty minimum standards increase over time, it appears that in setting these standards Ofcom has departed from its usual method of gliding towards the desired outcome over the control period. In particular, the year 1 minimum standard of 80% appears to be a desired state that is then simply increased over the period of the new control. Further comments in relation to this topic are provided in the response to Question 13.11.

**Openreach improvement initiatives**

215. As Ofcom correctly recognises, Openreach is making a number of changes that will be essential to underpin sustainable improvements to Ethernet delivery. These changes include organisational changes (both in terms of structure and size of the delivery organisation), along with process and systems changes.

216. A number of the changes are already well underway or have been completed, but there are also a number of important initiatives that are either in their early stages or that have not yet commenced.

217. Openreach's overall approach to improving Ethernet delivery is focussed on three areas which we believe correspond well with Ofcom's intentions in relation to Ethernet QOS:

- improving certainty by delivering to the date we commit to;
- reducing the lead time it takes to fulfil orders; and
- being easier to do business with by improving the communication through the order delivery process and by providing CPs with improved tools such as improved infrastructure discovery capabilities.[33]

[33] The Infrastructure Discovery map tool provides information about the Openreach infrastructure in areas where EAD services are desired.

218. These improvement areas are to a significant extent dependent on a set of process and system changes as set out in Table 7 below. A number of the enablers (those marked with an asterisk) are dependent on EMP adoption for the full benefits to be delivered.

***Table 7 – Openreach Improvement Initiatives***

| Area | Enabling initiative |
|---|---|
| Improving delivery certainty | • DOJ*<br>• Proactive order management*<br>• Production management<br>• E2E controls transformation |
| Lead time reduction | • Improved throughput and fluidity<br>• DOJ*<br>• Single engineering visit<br>• Process re-engineering<br>• Data-centre pre build<br>• Customer specified appointment slots* |
| Easier to do business with | • Infrastructure discovery*<br>• Clarity note quality<br>• Event plan*, 2 way KCIs*<br>• Proactive order management*, customer specified appointment slots*, project working*, channel management*, knowledge store* |

219. In addition to Openreach rolling out the improvement plans, Openreach needs co-operation from CPs to get the best from these initiatives. For example, CPs will need to fully set themselves up on EMP in order for full benefits to be realised.

220. Ofcom should take account of the improvement initiatives and dependencies when setting the minimum standards.

**Progress against the improvement initiatives**

Organisational changes

221. Openreach has made a number of structural changes to the Ethernet delivery organisation that will assist in providing consistently good levels of service.

222. These changes include the creation of the BCD unit which brought together end-to-end responsibility for Ethernet delivery for the first time. Since its creation, the BCD unit has been able to look at end-to-end resourcing, measures and delivery processes, and has brought new management focus and attention to Ethernet specific issues.

223. In addition, Openreach has invested in management capability at all levels within the BCD team, and in new production management and service insight capabilities which bring better insight and understanding of Openreach's business challenges along with how best to improve order throughput and service performance. The Managing Director of the BCD unit is also a member of the Openreach executive team.

224. The level of resource associated with delivery of Ethernet services has also increased as set out in Table 2 above.

225. Openreach has increased its resources to meet Ofcom's proposed minimum standards, and continues to closely monitor resource levels to strike the right balance between exceeding service delivery minimum standards and ensuring operational efficiency. Further resource changes may be required in the future, depending on a number of factors including market demand and order category mix. The costs associated with these resource increases will need to be taken into account in the charge control.

226. Finally, Ofcom needs to consider recruitment timescales. The process of recruiting new staff takes on average 4.5 months from the start of the process to effective deployment. This is due to the various stages involved in the process that aim to ensure good quality candidates are deployed including role advertising, candidate selection, detailed training programmes and providing tools. Certain skills, such as those associated with delivering civils work (a key component for circuits involving new network build), are also particularly difficult to recruit given the current very high market demand across multiple network providers and other industries (mainly construction) for such skills.

227. It is therefore important that Ofcom's proposals recognise that, while Openreach is taking significant steps to further increase service capacity on a sustainable basis, there are limitations on how quickly Openreach can turn extra recruitment into effective resource. This process will take time to deliver full benefits and it is right and proportionate that the minimum standards proposed take this into account.

Differentiated Order Journey

228. DOJ has been developed as a different way of working in relation to the Ethernet provision process. Openreach has led on developing DOJ, which has been refined via a process of close collaboration with industry, under OTA2 facilitation.

229. The central features of DOJ include:

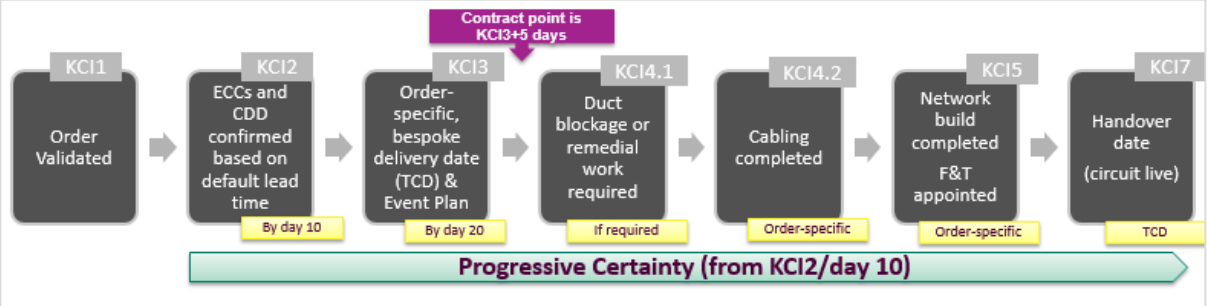
- the use of category based lead times in setting the initial CDD based on statistical percentile analysis of previous performance;
- the revision of the order categories to split category 2 into 2a (no duct work needs to be undertaken) and 2b (duct work required), plus the creation of category 5 circuits (resilience option 1);
- changes to the KCI structure, including the introduction of an order specific, bespoke delivery date (the 'Target Completion Date' or TCD) and event plan[34] at KCI3, new KCIs: KCI4.1 and 4.2 if duct blockage or remedial work is required, and order specific KCI5 and KCI7[35]; and
- detailed rules in relation to the application of date changes through the use of deemed consent.

230. The DOJ process overview is shown in Figure 17 below.

[34] The event plan will contain the details of the work required to fulfil an order, including key milestone dates, to help customers understand the work required and the rationale for the Target Completion Date (TCD).

[35] KCI5: Network build completed / fit-and-test appointed; KCI7: Handover date (circuit live).

***Figure 17 – DOJ process overview***




231. Since 20 April 2015, Openreach has been running a DOJ trial using live orders in a regional patch within North West England. The purpose of this trial has been to better understand the operational effectiveness and implications of DOJ working, along with assessing the impact on the customer experience and performance against the trial objectives.

232. At time of writing[36], 829 orders have been placed through the trial, with 207 orders completed. Performance against key metrics such as delivery against the initial CDD and the timeliness of provision of the initial CDD is promising (e.g. 89% delivered to the initial CDD and 75% of initial CDDs provided by day 10). However, this is principally based on completions for category 1 and category 2a orders, and so further assessment will be needed later in 2015 when there will be a larger mix of the more challenging category 2b, 3 and 4 circuits to assess. Openreach will continue to closely monitor the progress against the trial orders, and will provide further updates to Ofcom and industry later in 2015.

233. In addition, it has become clear during the DOJ trial that the detailed rule set in relation to date management (that has been developed in collaboration with industry) is placing significant additional burden on the Openreach job controllers to an extent that it is unlikely to be scalable without significant additional automation. Additional automation is not feasible on the legacy systems currently used (COSMOSS, eCo), but is feasible over EMP which is the strategic future platform for Ethernet.

234. Following discussions with customers, it is clear that DOJ is generally supported and seen to deliver significant improvements to the existing way of working, particularly in relation to certainty. However, there is also a clear industry preference to 'do DOJ once' i.e. not need to go through the process of moving to full DOJ working using legacy systems, then go through the process again using EMP.

235. Based on the above considerations, Openreach's current plan is to roll out full DOJ nationally but to implement that rollout via EMP. This will have implications for the timing of DOJ, since it will be linked to the Openreach EMP launch (as set out in more detail below) and to the speed of CP adoption of EMP.

236. Openreach is investigating whether certain aspects of DOJ working could be usefully imported into current processes in advance of the full DOJ delivery over the strategic EMP platform. This does mean, however, that during the period of the new control, there will be a combination of existing (i.e. current business-as-usual) and full DOJ processes running, and that during the early period of the control the existing process will dominate in terms of the proportion of orders placed.

[36] Data accurate on Friday 24 July 2015.

237. This situation will create some extra complexity in the early part of the new control period and will mean that the benefits of full DOJ working, which are particularly relevant to the certainty aspects of the order journey, will be dependent on EMP delivery and CP adoption of EMP.

238. Openreach considers that Ofcom should take account of this situation, particularly in relation to the specification of the certainty minimum standards. As set out in the response to Question 13.10, Openreach is also concerned that some of the current Ofcom proposals may also undermine the whole basis of DOJ, thereby reducing its potential effectiveness as a means to improve certainty. Should Ofcom persist with its current proposals this effect also needs to be accounted for in relation to the setting of the certainty minimum standards, since Openreach will be left with a more limited set of tools to drive improvement in relation to such measures.

Equivalence Management Platform.

239. As Ofcom notes in the BCMR Consultation, the previous launch of EMP (known as EST) was unsuccessful, and did affect Openreach's service delivery to some extent since a number of expected operational benefits were not realised.

240. Openreach has conducted a detailed review, in which CPs and the OTA2 have been heavily involved, in order to understand the reasons for the failure of EST, and to ensure that this is taken account of in the re-launch plans.

241. Openreach's EMP re-launch plans have been based on collaborative working with CPs, via OTA2 facilitation. As part of this exercise, and based on lessons from EST, we have developed a number of 'Critical Success Factors' (CSFs) that have helped to define the key improvement areas for EMP re-launch.

242. Further key improvements include ensuring that operational change management is integral to the system deployment, with more focus on enabling Openreach people to better interact with the system in order to effectively manage jeopardy and unexpected events. The other improvements that we have made include introducing prioritised order management dashboards that allow us to introduce 'Proactive Order Management' (POM), more comprehensive Management Information Statistics (MIS), and improvements to our address matching systems estate and improving the content of automated KCI messages.

243. We are confident, based on the approach that has been taken, that the next full EMP launch will be successful. Openreach has been operating a low volume live order pipeline since August 2014, and has been closely monitoring performance during this time. Performance over this time has been encouraging, and we are steadily increasing the loading on the platform to assess its future performance outlook.

244. As noted above, we are also including a number of additional features in EMP, which will only be available via the strategic EMP platform. The benefits that these additional features will bring will depend on the timing of EMP launch and the timing of the CP adoption plans.

Other process and product enhancements

245. Openreach is also progressing a number of other process and product enhancements that will deliver benefits to the service experience. These include:

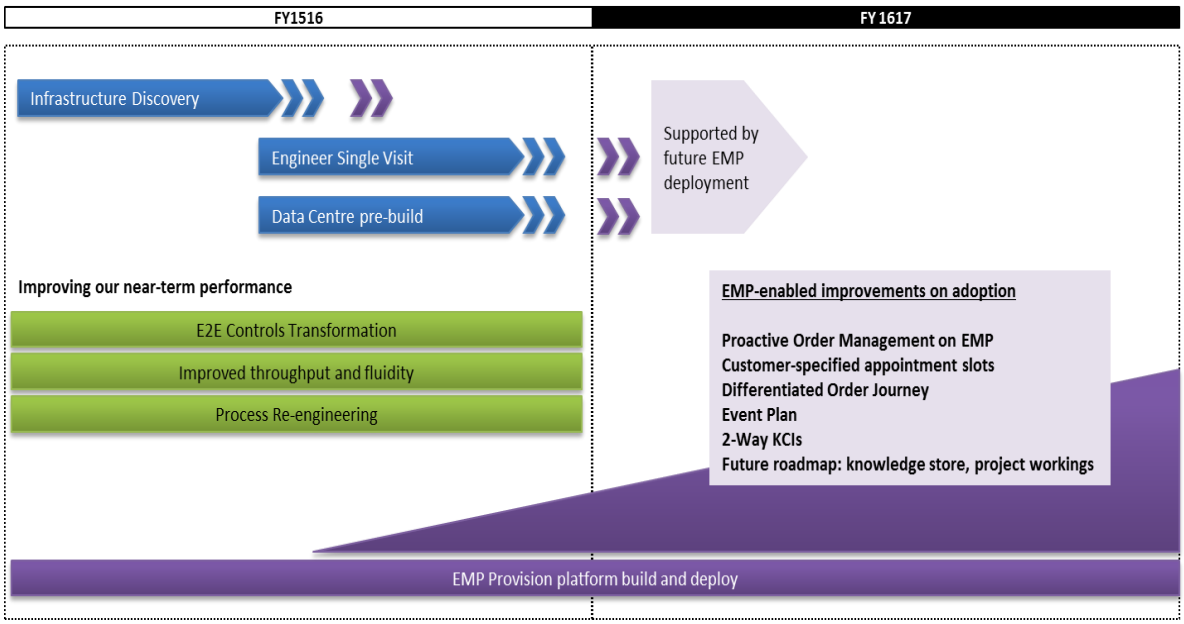
- Ethernet single visit (ESV)[37];

[37] To provide a circuit today, a fibre jointer has to go to both ends of the circuit to install the fibre then, 5-8 days later, a fit and test engineer has to go to the same locations to install equipment to complete the circuit for our customers. ESV introduces

- re-engineered provision processes for category 1 orders (data centres and 'quick wins');
- Openreach controls transformation; and
- capacity management and pre-build.

246. An overview of the main transformation initiatives is set out in Figure 18 below.

***Figure 18 – Overview of Openreach transformation initiatives***




247. As set out above, a number of important improvement initiatives are in progress. This represents Openreach's commitment to delivering sustainable service improvements to Ethernet. Openreach's ability to meet Ofcom's service minimum standards is, to some extent, also reliant on these organisational and improvement initiatives.

248. In setting the minimum standards Ofcom should take account of the status, constraints and timing of the improvement plans that will be required to meet the minimum standards. In particular, the timing of DOJ and the need to run dual processes in the early years of the control suggests that Ofcom should adopt a cautious approach in setting the early minimum standards that relate to certainty.

**Other factors impacting future service performance**

249. In addition to the need to deliver a large scale improvement programme, the following additional factors should be taken into account in setting challenging and proportionate minimum standards through the period of the new control.

Ofcom's Dark Fibre proposals

250. Ofcom's Dark Fibre proposals, as specified in the BCMR Consultation, mean that significant product development activities would be required following publication of the final statement.

251. This will create an additional overhead to the existing work set out above in relation to the service improvement programme. Ofcom must appreciate that dealing effectively with all

cross-skilling and new equipment which enables a fibre jointer to install the fibre and kit and therefore complete the circuit in a single visit.

aspects of the additional work created by the need to develop a Dark Fibre portfolio cannot be addressed simply by increasing relevant resources.

252. For example, the introduction of Dark Fibre will require a significant process of industry consultation and discussion. This will be needed to cover essential items including *inter alia* detailed work in relation to product and process definitions, technical and commercial specification and contract development. The issue is that this large programme of work will need to be undertaken at the same time as other significant programmes that are already in train and which are needed to fully implement the existing improvement programme – such as DOJ and EMP adoption.

253. It will not be until Openreach has made the Dark Fibre Reference Offer that industry will be clear on how the detailed processes (for example in relation to new provide and migration scenarios) will work in practice. It is therefore difficult to fully define / predict the precise impacts that the introduction of Dark Fibre will bring at the present time.

254. There will also be significant overlap in terms of the personnel (from Openreach, CPs and the OTA2) that will be responsible for completing the various transformational activities set out above. We are therefore concerned that there is a risk at an industry level of 'initiative overload', and that the processes needed to discuss, agree and implement the various overlapping initiatives could become a bottleneck in the short term. In reality such discussions tend to involve a relatively small pool of appropriately skilled personnel, including from CPs and the OTA2, and because of this, the risk cannot be mitigated by simply increasing Openreach resource.

255. Furthermore, the introduction of Dark Fibre without an appropriate forecasting regime being in place could have serious resourcing implications for Openreach, in turn affecting our ability to meet the provision minimum standards.

256. As set out in more detail in our response to Question 13.8, Openreach relies on forecasting, in particular on short-medium term forecasting, to ensure that it has the right level of resources and the right mix of skills (e.g. fibre jointers or fit and test engineers) in the right place to carry out the work. Any resourcing decision to increase or reduce resource cannot be easily reversed. As noted above, it takes on average 4.5 months to recruit, train and kit an engineer and for that engineer to become efficient.

257. The introduction of Dark Fibre will introduce an element of volatility into the overall volume forecast which could result in Openreach incurring inefficient costs (too many fit and test engineers if higher take up of Dark Fibre than forecasted materialises) or in resource shortage (not enough fit and test engineers if lower take up of Dark Fibre than forecasted materialises). A resource shortage, even temporary, would adversely impact our ability to meet the provision minimum standards that Ofcom is proposing to impose on the active products. Furthermore, assessing the level of Dark Fibre new provides and migrations (where there will also be different migration variants) will also introduce further complexity into forecasting, and to ensuring that the right levels of resource, with the right skills, are in the right locations at the right time to meet the overall market requirements for Ethernet services (whether active or passive).

**Ofcom approach in relation to speed and certainty**

258. Although Openreach has concerns about the specification of some of the Ofcom speed minimum standards, conceptually we agree with Ofcom's proposal to set transitional minimum standards in year 1 of the new regime.

259. This is a proportionate approach to take given the extent of the outstanding work needed to underpin Openreach's ability to meet the minimum standards imposed, particularly given other complicating factors such as the need to create a Dark Fibre service during the same timescales. There is still some significant downside risk associated with the improvement plan which cannot be purely resolved by increasing Openreach resource. It is right that Ofcom accounts for such uncertainty in the composition of the standards.

260. Openreach has specific concerns in relation to the upper percentile speed minimum standards. Given the most recent performance in relation to circuits at the 97th percentile of speed performance (which Ofcom has not assessed in the BCMR Consultation), together with the challenges associated with improving performance, we consider that the minimum standards as currently specified are not likely to be achieved. Further comments in relation to this topic are provided in the response to Questions 13.12 and 13.13.

261. The general approach (i.e. to glide over time to a desired state) taken in relation to the specification of the speed minimum standards does not appear to have been used in setting the certainty minimum standards. In particular, the year 1 proposed target of 80% is not based on any evaluation of Openreach historic performance, or on how achievable such a target would be. Rather, it appears to be solely based on the 80th percentile performance that Openreach used in the DOJ trial. This was selected as an agreed level to be tested for the purposes of the trial, and was not in any way selected in anticipation of future Ofcom measures or on the basis that 80% was either 'right' or sustainable in the long run.

262. Similarly, in proposing an increase in the certainty target from 80% to 90%, Ofcom has conducted no assessment of whether these minimum standards are likely to be achievable. Therefore, although we support Ofcom's proposal to have lower minimum standards in early years, we do not agree with the absolute levels proposed by Ofcom for the certainty targets. Further comments on this matter are provided in the response to Question 13.11.

263. Given that a number of the initiatives that underpin improvement in relation to certainty will probably be ongoing during the first half of the new regime, in particular DOJ, Openreach is concerned that Ofcom's approach in relation to setting the minimum standards for certainty does not take sufficient account of either the output from the DOJ trial or what is likely to be reasonably achievable.

264. As set out in the response to Question 13.10, the proposed linkage between speed and certainty measures creates further difficulties. In particular, in a DOJ way of setting the initial CDD, the Ofcom proposal effectively gives rise to a second speed target that is likely to undermine its effectiveness as a means to improve certainty. This is a cause for significant concern that needs to be addressed by Ofcom.

265. Openreach provides more detailed comments in relation to the specification of the speed and certainty minimum standards in the responses to Questions 13.10 to 13.13 below.

**Comments in relation to repair**

266. We agree with Ofcom's proposals to keep the repair minimum standards flat across the three years of the new control.

267. Openreach has a number of further comments in relation to Ofcom's overall proposals for the repair minimum standards, which are set out in the response to Question 13.14.

## Conclusion

268. Achieving Ofcom's proposed minimum standards will require significant work to be undertaken, and this work will involve not only Openreach, but also detailed industry discussion under OTA2 facilitation.

269. The Openreach improvement programme is evidence of Openreach's commitment to deliver good levels of service on a sustainable basis. However, this is a complex programme, with many aspects remaining in train. The full benefits of the programme will require completion of the Openreach delivery activity, and some CP activity, such as EMP adoption.

270. Furthermore, the decision to deliver DOJ over EMP (which we consider is broadly supported by industry) means that for an unspecified period of the new control, Openreach will need to manage two underlying provision processes. This will inevitably introduce some further complexity until EMP is fully adopted.

271. It is right in these circumstances that Ofcom sets the desired level of achievement for all of the minimum standards proposed at the end of the control period (i.e. year 3), and set a glide to that level during the period of the control.

***Question 13.10: Do you agree that it is appropriate to use a combination of initial CDD and TTP as the basis around which to set the new delivery date certainty minimum standards? Please provide reasoning for your answer. If you do not agree, please also give your proposed alternative including reasoning.***

272. We agree that the two key measures of service quality in relation to Ethernet provision are certainty of delivery and speed of delivery. Based on the discussions that Openreach has been having with CPs for some time, these factors have been clearly identified as the two biggest priorities in relation to provision performance.

273. There can be differences of opinion amongst CPs as to which of the two factors is most important consideration, and not all CPs place certainty above speed. Similarly, different departments within the same CP organisation can also give different weighting to these factors with, for example, operational / customer service teams making certainty the top priority and commercial teams making speed the top priority.

274. CPs also take a different approach in relation to how they manage their own end customers. This is particularly relevant to certainty measures where, for example, some CPs will build extra contingency into the initial CDD provided by Openreach before communicating installation dates to their end customers, whereas other CPs will simply pass the information they obtain from Openreach to the end customer.

275. We also note that the BDRC[38] report commissioned by Ofcom identified certainty and speed as the key considerations from an end customer perspective in relation to provision activity.

276. Given this, we agree that a combination of initial CDD and TTP are likely to be the correct measures to use in order to measure performance in relation to certainty and speed respectively. It is important that Ofcom carefully specifies the measures for certainty and speed in a way that makes them challenging and achievable.

**Ofcom proposal to link the certainty and speed measures**

277. We strongly disagree with Ofcom's proposal to link the certainty and speed measures by requiring the initial CDDs provided by Openreach to conform to all of the various speed minimum standards.

278. Ofcom's proposal undermines the DOJ way of working where initial CDDs are provided by using category based lead times based on recent performance. This is because, as set out in more detail below, using DOJ this proposal effectively creates a second speed target above and beyond the speed minimum standards already being proposed.

279. As a result, the proposal constrains Openreach in terms of the operational processes it is able to employ to increase its performance in relation to the certainty minimum standards. DOJ is a key part of Openreach's service improvements plans, particularly in relation to certainty, and if Ofcom's proposals mean that the central feature of DOJ (setting category based lead times) is undermined or unworkable, this will diminish Openreach's ability to achieve the higher levels of certainty set out in Ofcom's proposals.

280. Ofcom appears to be supportive of the concept of DOJ in the BCMR Consultation, and (correctly in our view) indicates that it is not its intention to intervene in relation to the specification of DOJ, noting that this is better left to direct discussion between Openreach and

[38] BDRC Continental report, Business Connectivity Services Review (May 2015).

CPs.[39] However, this proposal represents a significant regulatory intervention in relation to DOJ.

281. Given this, we are very concerned that Ofcom is indirectly dictating not only what the level of minimum standards should be, but also how Openreach should achieve those minimum standards. It appears to us that Ofcom has already formed its view as to how the time / cost / quality equation that is in play in relation to the setting of initial CDD should operate, and has decided that the high cost / high time approach is the right solution. In our view this is (perhaps unintentional) micro-regulation which is likely to be damaging, disproportionate and which does not align with Ofcom's regulatory principles.

282. We consider that the current proposals imply the need for Openreach to either (a) forego using DOJ in the way it has been designed or (b) use DOJ but live with a second faster speed target (that has not been justified by Ofcom) above and beyond the speed targets that are being proposed. This is not good regulation.

283. Our understanding is that Ofcom is proposing the linking measure to address its concern that without it Openreach could meet the certainty minimum standards simply by providing overly conservative initial CDDs.[40]

284. Although we consider that this risk is somewhat inflated, we set out below an alternative means to deal with Ofcom's concern that does not carry the same negative consequences as the proposal to link certainty and speed minimum standards.

**Impacts of the Ofcom proposals on DOJ**

285. In DOJ we will be agreeing with customers a set of default lead times, one for each of the order categories we will use: 1, 2a, 2b, 3, 4 and 5. These lead times will be used in DOJ to set the initial CDD. If these default lead times are set at the 80$^{th}$ percentile of the current lead time performance for each category, then that should in theory result in 80% of orders being delivered on or ahead of their initial CDD.

286. However, if the default lead times were based on the 75$^{th}$ percentile (for example), or if they were arrived at through negotiation with CPs as to what they think they ideally should be (and that turns out to be less than the 80$^{th}$ percentile current performance), then all other things being equal the result would be less than 80% of orders being delivered to their initial CDD.

287. It follows too that if the default lead times remain based on the 80$^{th}$ percentile of current performance, and initial CDDs were set on this basis, then in year 2 of the control Openreach would fail the increased certainty minimum standard of 85%, all other things being equal. The only way to avoid this would be to increase the default lead times to at least the 85$^{th}$ percentile of current performance at the end of year 1.

288. In summary we think this means that (set against Ofcom's current certainty proposals) the default lead times we use in DOJ can only be based on the current 80$^{th}$ percentile lead time for each category in year 1, moving to the current 85$^{th}$ percentile lead time for each category in year 2, moving to the current 90$^{th}$ percentile lead time for each category in year 3, i.e. the defaults could only be derived from current performance. They could not, for example, be negotiated with industry as to what feels 'fair.'

[39] BCMR Consultation (May 2015), para. 13.117.

[40] BCMR Consultation (May 2015), para. 13.145.

289. If Openreach were to concede using DOJ category default lead times that are arrived at through industry negotiation, and they turned out to be less than the current 80th percentile, then in a DOJ world these will effectively become a second speed standard, with the increasing certainty targets making the second speed target progressively more stringent. 80% of orders would need to be delivered to the net of these lead times (from the category mix), which may be more or less onerous than (but almost certainly different from) the Ofcom stipulated 40th, mean, and 97th percentile performance.

290. We are therefore very concerned that Ofcom's current proposals create a secondary speed target above and beyond the existing speed measures proposed by Ofcom. This effect may make the setting of category based dates using historic lead times unworkable.

291. Formulating the right approach for delivering better certainty involves trade-offs between time, cost and quality. For example, one approach to dealing with certainty could be to conduct extremely detailed planning in relation to every circuit ordered. However, using this approach on a blanket basis would inevitably mean that more time would be needed to complete the planning, significant extra cost would be incurred by Openreach (a proportion of which will be wasted given that industry cancellation levels remain stubbornly around 20% with no short-term prospect of reduction given market dynamics), and the date for providing the initial CDD to CPs would need to be extended (significantly so in the case of more complex orders).

292. DOJ provides a more efficient means to offer good levels of certainty to customers, with a significant reduction to the amount of date management through the use of deemed consent, and where the initial CDD can typically be provided within reasonable timescales. In achieving this DOJ aims to optimally resolve the time / cost / quality equation associated with providing initial CDDs.

293. Openreach also considers that in order to maximise its performance in relation to certainty it will be required to adopt a mixture of best practice from both the current and DOJ ways of working, i.e. improving the planning particularly in relation to more complex orders, but also supplementing this approach by using elements of DOJ in order to set the most realistic delivery dates.

294. If Ofcom persists with its current proposal to link certainty and speed, it will effectively undermine the extent to which Openreach can make use of setting delivery times by reference to historic performance, which is the fundamental feature of the DOJ way of working.

295. Undermining DOJ in this way would therefore limit Openreach's approaches in terms of how to best deliver improved certainty, and diminish one of the main approaches it has been planning (with CPs) to use in relation to this subject. If Ofcom implements this proposal, this would suggest that it has already formed its view as to how the time / cost / quality equation and determined that Openreach should adopt a high cost and most time-consuming approach based on detailed planning for all circuits. In such circumstances, Ofcom will also need to review the likely impacts on cost (which Openreach will need to recover) and review Openreach's ability to meet the main certainty minimum standards proposed using a more limited set of improvement options. Ofcom also needs to acknowledge that forcing Openreach down the line of using existing processes (with augmented planning) to set the initial CDD will also have negative consequences when compared to a DOJ way of working for the time it takes for the initial CDD to be provided.

296. To be clear, we do not consider that a viable option in a DOJ way of working would be to replace the statistically derived lead time with the Target Completion Date (TCD) as the initial CDD. This is because using the TCD would simply replicate the existing process for dealing

with setting delivery timescales, without utilising the other benefits that arise from DOJ (such as reducing the level of date changes associated with the application of deemed consent).

**Alternative proposal in relation to DOJ**

297. We consider that the risk of Openreach routinely providing CDDs that are consistently in excess of the speed minimum standards proposed is somewhat inflated.

298. The philosophy of DOJ lead time setting is not to create conservative lead times, but to create realistic lead times for the specific type of order placed. Similarly, in the existing (non-DOJ) process the initial CDD is provided when planning is sufficiently advanced, and aims to be a realistic estimation of the remaining time until order completion.

299. If Openreach were to move to a 'policy' of deliberately setting estimated initial CDDs beyond the expected delivery date, this would create a number of issues that would impact both CPs and Openreach, for example by making co-ordination of fit and test activity more complex. It is not operationally or commercially desirable for Openreach to provide information that is misleading just because this could increase its chances of achieving one of Ofcom's minimum standards.

300. We also consider that Openreach's ability to pursue such a policy would in practice be constrained (given that DOJ lead time setting would be based on transparency in relation to Openreach's historic speed performance using percentile analysis) and CPs would rightly raise objections.

301. We therefore consider that Ofcom has exaggerated Openreach's incentives and ability to 'game' the certainty minimum standards by setting overly conservative initial CDDs. We also note that Ofcom would have the ability, via the QOS SMP obligation, to intervene at short notice should Openreach practice become a cause for concern.

302. Notwithstanding this, alternatives are available to Ofcom that would enable its objectives to be met, but without bringing the negative consequences created by the current linking proposal.

303. For example, Ofcom could do an assessment at the end of each year (or on a more regular basis if needed) to measure the accuracy[41] of Openreach's initial CDD setting. This could easily be done by comparing the initial CDDs provided with the actual circuit completion dates, and then by assessing both the proportion of completions that were within the initial CDD and the distribution of the initial CDDs against the relevant compliance year. This monitoring approach would ensure appropriate oversight was in place to prevent Openreach 'gaming' the measures, but would not bring the negative consequences associated with the linking proposal.

304. Alternatively, another approach that could be considered would be for Openreach to set category based lead time using the DOJ approach, and to refresh these lead times on a regular basis (for example, quarterly) to ensure that the lead times used to create the initial CDD were based on the most recent levels of performance (and so likely to be realistic). Openreach could also be directed to ensure that any such process was managed transparently, for example, by showing the method and data used to derive the lead times to relevant stakeholders / arbiters such as OTA2. This type of approach would deal with Ofcom's concern in relation to Openreach setting overly conservative initial CDDs, while the oversight offered would prevent 'gaming' by Openreach.

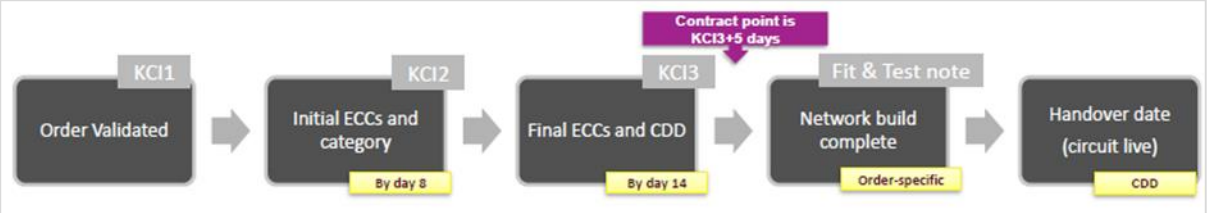
[41] Including an assessment of how much the initial CDD varied from the final delivery date.

305. In summary, Openreach considers that the Ofcom proposal to link the speed and certainty minimum standards creates significant negative consequences and should be removed. There are less intrusive options available to Ofcom which do not bring the same negative repercussions. If Ofcom continues to consider that further measures are needed in relation to the specific concern it has identified, it should adopt a less intrusive approach based on monitoring.

**Implications of the Ofcom proposal on the existing process**

306. As set out in Figure 19 below, in the existing process, the initial CDD that is provided at KCI3 is not an estimation of the overall lead time for the circuit (i.e. the elapsed time between Order Validation Date (OVD) and circuit completion), but rather an estimation of the remaining time to circuit delivery from the point of KCI3 (i.e. in essence an estimation of the duration of the field work needed).

***Figure 19 – Existing provision process and specification of the initial CDD (working days)***




307. The existing Openreach process does not align with the Ofcom standards specified since, for example, the Ofcom proposals to link the certainty and speed minimum standards use the currency of OVD to completion and not KCI3 to completion as is used in the current process. To note, in an EMP environment, the OVD is automatically produced and could come off the back of a big batch of potentially un-forecast orders, so fluctuation in demand in addition to absolute levels of demand needs to be taken account of. For clarity, we do not consider that these are significant problems, but this does mean that some time will need to be taken ensuring that the right measures / tracking is put in place ahead of the minimum standards coming into effect.

308. We are also concerned that, as a result of the way the current Ofcom proposals are described, their application to the existing delivery process implies that for the purposes of compliance with the minimum standards, any non-customer related date change post KCI3 will inevitably lead to a compliance failure. This is because, as noted above, the date provided at KCI3 in the existing process is the forecast of the remaining time to completion that is expected from the date the KCI3 is provided.

309. Ofcom is proposing to include all non-customer delay within the minimum standards. The certainty minimum standard would inevitably not be met if the date needs to be moved again once the KCI3 has been provided due to deemed consent reasons that are not associated with customer delay.

310. This is unfair because, even when very thorough planning activity has been undertaken, there will be numerous instances where (often significant) additional non-customer delay will occur after the setting of the initial CDD that could not have been reasonably / accurately foreseen by Openreach at the point when the initial CDD was provided. Examples include circumstances where further blockages are identified even after test rod and rope has been completed from both ends of the circuit prior to the setting of KCI3, or further delay is introduced by a third party

(e.g. associated with protracted negotiations in relation to a wayleave application) that could not have been reasonably foreseen by Openreach prior to the provision of the initial CDD at KCI3.

311. Openreach considers that Ofcom's proposed approach is not proportionate, and that Openreach should not be considered to have failed against the minimum standard in circumstances where the date needs to move, post provision of the initial CDD, for customer delay reasons that could not have reasonably been foreseen at the point when the initial CDD is provided. We urge Ofcom to reconsider its proposals to ensure that Openreach is not penalised in such circumstances.

312. Given that non-customer delay can occur even after thorough planning activity has been completed, Openreach would need to adapt existing processes to reduce the chances of failing the certainty minimum standards as currently specified. This is likely to require some degree of lead time estimation to supplement the bespoke planning information gathered.

313. Notwithstanding the final approach adopted by Ofcom in relation to specification and measurement of the minimum standards, Openreach assumes that in a scenario where the date moves post provision of the initial CDD for non-customer reasons, it will still be able to apply deemed consent in order to reasonably protect its financial exposure as allowed under the contract. We invite Ofcom to provide clarity on this specific point in the final statement.

**Conclusion**

314. The Ofcom linking proposals create a number of (perhaps unintentional) negative consequences. Ofcom appear to want to not only set out what the levels of achievement should be, but also how these should be achieved. We consider that this is direct regulatory interference in relation to matters that are better left to the market to work out optimal solutions.

315. In particular the proposals lead to the creation of second speed target in DOJ which risks making the whole DOJ approach unworkable. The proposals also stipulate that by using the existing (non-DOJ) process for setting the initial CDD, any date changes for non-customer reasons that occur after the initial CDD has been provided will result in a failure against the certainty minimum standard, whether those date changes could have been reasonably foreseen / controlled by Openreach or not.

316. We consider that both of these outcomes are likely to create a sub-optimal system that places a disproportionate burden on Openreach. There are alternative approaches that would enable Ofcom to deal with its concerns that do not bring such significant and negative consequences. Ofcom should revise its final proposals to remove the current linking proposal and replace this with an appropriate monitoring scheme (in relation to which Openreach has suggested some alternatives above).

317. This would deal with the risk that Ofcom has identified without creating the negative consequences associated with Ofcom's current linking proposal. Ofcom also needs to revise its proposals to allow more flexibility in relation to non-customer related date changes that occur post the provision of the initial CDD and that could not have been reasonably predicted / controlled by Openreach at the point when the initial CDD was being provided.

318. Should Ofcom stay with the current proposals, there are likely to be cost implications for Openreach, and Openreach would need to be able to recover such additional costs in the regulated prices charged for Ethernet services.

***Question 13.11: Do you agree that it is appropriate to set the metrics for the delivery time certainty minimum standard to the initial value of 80% and final value of 90%? Please provide reasoning for your answer. If you do not agree, please also give your proposed alternative.***

319. We agree with Ofcom that certainty of delivery is a key part of delivering a good service experience, and that it is right to set lower minimum standards in the early years of the control in order to give Openreach the opportunity to implement the improvements needed to achieve the minimum standards proposed.

320. We also agree that certainty needs to be improved over the extent of the new control period.

321. However, the minimum standards proposed also need to be proportionate, and we are very concerned that the analysis Ofcom has used to set the minimum standards is insufficient and in consequence the minimum standards have been set at the wrong levels.

322. We are also concerned that Ofcom's approach in setting the certainty minimum standards departs from Ofcom's usual approach in setting glide paths where the approach is to gradually move to the desired / calculated target. In contrast, the approach taken here appears to be to start with a desired target and then to make further improvements with no verification or calculation that the eventual level is better, right, or achievable.

323. In particular, Ofcom's approach in setting the certainty minimum standards includes no assessment of what can be reasonably expected to be achieved based, for example, on an assessment of historic performance in relation to the minimum standards being proposed. This is in counterpoint to the approach that Ofcom has taken in relation to the speed minimum standards.

324. In setting the year 1 speed minimum standards, Ofcom is proposing that the performance should be based on maintaining recent levels of performance.[42] Conversely, in relation to the certainty minimum standards the 80% proposed in year 1 of the new controls appears to be based solely on the starting point selected in the DOJ trial.[43] To note, the use of the 80$^{th}$ percentile as a starting point in the DOJ trial was not selected because this was obviously the 'right' number, that it would be achievable going forward, or in anticipation of future Ofcom minimum standards. Rather it was selected as a number to be tested (along with a number of other factors) through a trial. There appears to have been no consideration given by Ofcom to the context in which 80% was selected in the DOJ trial, or whether 80% is either 'right' or reasonably achievable within given timescales, taking account of existing operational conditions and plans.

325. Ofcom has also taken no account of the potential reduction to Openreach's ability to improve the certainty performance because of other proposals in the consultation. In particular, Ofcom should take greater account of the implications for DOJ caused by the proposal to link certainty and speed (as set out in the response to Question 13.10) along with the constraint placed on Openreach by the proposed inclusion of all non-customer delay within the minimum standards, whether they are controlled by Openreach or not.

326. Ofcom's proposed approach therefore appears to be arbitrary. Ofcom should conduct a more detailed assessment of what is likely to be achievable using existing processes and taking fuller account of the impacts of the package of remedies that are finally proposed.

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[42] BCMR Consultation (May 2015), para. 13.158.

[43] BCMR Consultation (May 2015), para. 13.150.

327. This assessment should include an evaluation of Openreach's historic performance against the proposed minimum standard measure specified by Ofcom, along with an assessment of the factors that are likely to create a 'glass ceiling' to potential future performance levels.

328. We agree with Ofcom that the right approach in setting the certainty minimum standard is to work out the appropriate year 1 and year 3 targets (on which further comments are provided below). Once these points have been set, it is reasonable that the year 2 target sits at the midpoint between the two.

**Setting the Year 1 minimum standard**

329. As set out in Figure 20 below, Openreach's performance in relation to certainty using the same definition as that proposed by Ofcom in the BCMR Consultation has not been above 75% since the beginning of 2013, and has typically been closer to 70%. Current performance is around 72% while the rolling 12 month average performance against this measure is 71%.

***Figure 20 – Openreach historic performance against the Ofcom certainty target***


330. Openreach has started to identify a number of potential interventions to improve its future certainty performance, including:

- enhancing the planning and survey activities by targeting common failure scenarios and driving planning quality. Specific initiatives could include, for example, minimising instances of Test Rod and Tube (TRT) activity post KCI3 and enhancing early identification of traffic management requirements;
- intelligent date setting by using scenario risks to add contingency where needed; and
- addressing and managing common causes of delivery failure such as multiple traffic management requirements and duct blockages.

331. Work continues in relation to the detailed specification and timing of the plan to improve certainty and it is very likely that the improvement initiatives rolled out will be multi-faceted, and will be delivered in phases over the entire period of the new control. It is also likely that for more

complex orders, Openreach will need to employ multiple approaches in order to drive improvement (e.g. more up front planning, intelligent date setting, and reducing delivery failure).

332. Openreach's assessment of the factors that will improve certainty performance is work in progress. Further analysis needs to be undertaken before Openreach can fully set out its comments in relation to Ofcom's certainty proposals. To this end, Openreach will provide further information to Ofcom when our analysis is more complete that should be taken into account prior to Ofcom finalising its certainty proposals. In this regard, we expect to be in a position to provide further information to Ofcom by the end of August 2015.

333. The DOJ way of working also offers a route to improving certainty. However, as noted in our response to Question 13.10, Ofcom's current proposal to link the certainty and speed minimum standards calls in question the viability of setting lead times via a full 'DOJ-style' process, while the full benefits of utilising DOJ is also constrained by the timing of EMP, which will commence at scale in 2016, and is also reliant on the timing of CP adoption. The assumption set out by Ofcom in the consultation document that "…*the new process based on DoJ will be rolled out to most if not all of Great Britain plus Northern Ireland before the start of the new charge control period*"[44] is therefore not correct and needs to be revised.

334. Given these factors, in Openreach's view a more proportionate approach would be for Ofcom's year 1 target to adopt the same approach as being taken in relation to the speed minimum standards, where the year 1 targets broadly aim to maintain current levels of performance.

335. This suggests that the year 1 minimum standard for certainty should be set at 72% and not 80% as currently proposed. To note, this will ensure no degradation against current levels of performance, and in reality will incentivise Openreach to improve its performance given that the 72% would be set as a backstop minimum standard rather than as a target, and so Openreach will need to aim to be consistently above 72% in order to be confident of meeting the requirement.

**Setting the higher certainty target**

336. Openreach agrees with Ofcom that achieving 100% against the minimum standard would require Openreach to maintain excess resource at an inefficiently high level[45] and as such would be an inappropriate final year minimum standard. However, there is then very little further explanation provided by Ofcom to justify why the 90% proposed for the third year of the control is either reasonable or 'right'.

337. We consider that Ofcom should more carefully evaluate the likely implications and achievability of its proposed minimum standards before finalising its proposals. In particular, the final year target should include consideration of what is likely to be theoretically achievable by Openreach, without it needing to incur inefficiently high levels of cost.

338. Openreach could theoretically improve its performance to very high levels by significantly inflating the resources used to deliver certainty. However, such resources would need to be at a level sufficient to deal with <u>all</u> eventualities (such as spikes in demand and difficult to forecast delays), and would therefore be inefficiently high. This would have cost and price implications (since Openreach would seek to reasonably recover such costs in the prices it charges) that

[44] BCMR Consultation (May 2015), para. 13.150.

[45] BCMR Consultation (May 2015), para. 13.148.

would be unlikely to be supported by the market. This problem is acknowledged by Ofcom in the BCMR Consultation.[46]

339. Similarly, Openreach could seek to improve certainty by extending the timescale used to provide the initial CDD. However, using this approach to guarantee very high levels of performance would likely need the initial CDD to be provided very close to the circuit completion date for more complex circuits, which could itself negatively affect the end customer experience.

340. Furthermore, and as set out above and in response to Question 13.10, there are aspects of Ofcom's wider proposals that will impose constraints on Openreach's ability to meet the highest levels of certainty performance. These constraints are the linking proposal and its negative consequences for DOJ, along with the inability of Openreach to change dates post initial CDD for non-customer delay reasons.

341. There are therefore limitations on the number of levers available to Openreach to drive certainty, and limitations on the extent to which Openreach can flex those levers.

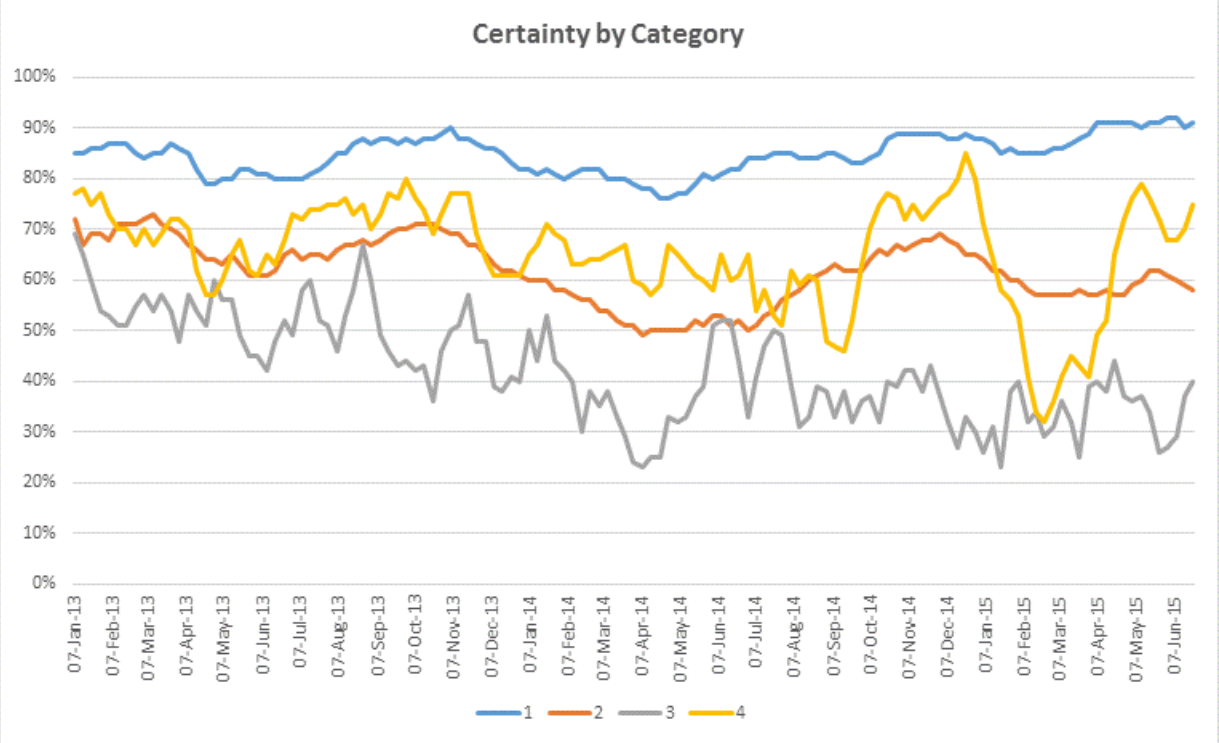
342. The specific problems in delivering very high levels of certainty performance are associated with the delivery of circuits where new network build needs to be undertaken. As set out in Figure 20 below, Openreach's historic performance against the Ofcom measure proposed has been significantly higher for category 1 circuits (typically greater than 80%), with much lower (and more variable) performance evident in relation to category 2, 3 and 4 circuits.

343. This analysis also shows that even in relation to category 1 circuits (where Openreach performance has been consistently high), performance in the last two years has rarely exceeded 90%.

344. The significantly lower (and more variable) performance in relation to the category 2, 3 and 4 orders also suggests that Openreach's ability to meet the higher targets being proposed by Ofcom for the certainty minimum standards could be constrained by future changes in the category mix of orders received. The future profile of category mix is very difficult to accurately forecast and is largely outside of Openreach's control. It will therefore be important to monitor this pattern in the future to ensure that Openreach's ability to meet the minimum standards is not undermined by factors that are outside of its control. Further comments on this subject are provided in our responses to Questions 13.11 and 13.12.

[46] BCMR Consultation (May 2015), para. 13.148.

***Figure 20 – Historic performance against the Ofcom certainty target split by category***




345. This simple analysis of historic performance immediately calls into question whether 90% could be ever be achieved across all circuit types, as would be required in the minimum standard proposed.

346. As noted above Openreach is also conducting further analysis in relation to certainty. The purpose of this analysis is to identify the principal root causes of failure in relation to certainty, and through this: (a) provide input to future improvement initiatives; and (b) provide a view of the level of improvement that can be driven through Openreach action. This will enable *inter alia* identification of the 'glass ceiling' in relation to the upper limit of potential performance beyond which performance cannot be consistently achieved due to factors that are not within Openreach's control.

347. The analysis remains a work in progress, but some early indicators are that the following factors are amongst the reasons for failure to successfully deliver circuits within the initial CDD provided:

- TRT applied post KCI3;
- re-plan required post KCI3;
- contractors working on behalf of Openreach missed the Required by Date (RBD);
- remedial duct work required post KCI3;
- blockage identified post KCI3;
- further traffic management delay post KCI3; and
- further wayleave delay post KCI3.

348. Based on the work conducted to date, it is also clear that the reasons for failure are not all wholly within Openreach's control. For example not all additional traffic management, duct blockage or wayleave delays that are encountered after the provision of the initial CDD can either be reasonably foreseen or controlled by Openreach, even following very thorough planning.

349. Openreach will continue to develop its analysis in relation to certainty, with particular focus on causes of failure, remedial action planning and the upper limit of potential achievement taking into account glass ceiling effects. Based on analysis conducted to date, we consider that the minimum standard of 90% for year 3 of the new control is likely to be set above the level that is likely to be reasonably and routinely achievable. However, we will continue to develop our analysis in relation to this question and expect to be in a position to provide Ofcom with supplementary information in this regard by the end of August 2015. This further submission will include comments on what the year 3 minimum standard should be, taking into account the additional analysis that needs to be conducted. Given the criticality of getting this measure right, we would expect Ofcom to take due account of the further submission prior to makings its final decision in relation to the certainty minimum standards.

**Conclusion**

350. We consider that Ofcom needs to do a fuller evaluation of the proposed certainty minimum standards prior to finalising its proposals.

351. In particular, Ofcom should take greater account of the following factors in setting its proposals:

- the recent level of Openreach performance for defining the year 1 minimum standards;
- glass ceiling effects to estimate a theoretical maximum of performance in relation to certainty and so define the year 3 target;
- the timing of Openreach's improvement initiatives, including DOJ which will not be fully in place prior to the start of the new regime; and
- the negative impacts on a DOJ way of working that is likely to flow from Ofcom's proposals to link certainty and speed minimum standards, together with the constraining impact of Ofcom's proposal to remove Openreach's ability to change dates for non-customer reasons post the provision of the initial CDD.

352. Openreach considers that by making a fuller assessment, Ofcom should conclude that the year 1 target for certainty should be 72% and the year 3 target should be below 90%.

353. Openreach is continuing its analysis in relation to certainty, and will be making a further submission to Ofcom by the end of August 2015. This further submission will include Openreach's final comments in relation to how the year 3 minimum standard should be set, and the level it should be set at.

***Question 13.12: Do you agree that it is appropriate to apply limits to mean TTP and upper (97%) and lower (40%) percentiles as the basis for the lead time minimum standard? Please provide reasoning for your answer. If you do not agree, please also give your proposed alternative.***

***Question 13.13: Do you agree that it is appropriate to set the upper percentile initial and final values to 159 and 118 working days and the lower percentile initial and final values to 30 and 29 working days for the lead time minimum standard to the values? Please provide reasoning for your answer. If you do not agree, please also give your proposed alternative.***

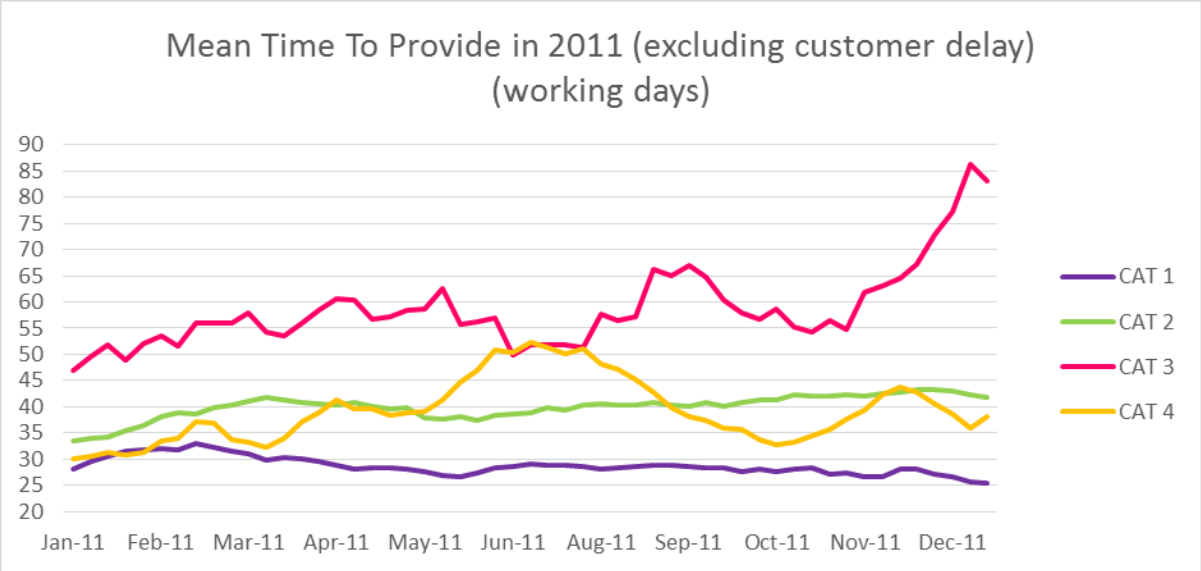
354. Openreach understands the need for the upper and lower percentile speed minimum standards. However, we consider that Ofcom needs to recognise the scale of the challenges involved in meeting such minimum standards and take greater account of the relevant improvement plans and risks. In particular, the lower percentile target is susceptible to failure due to exogenous factors such as future changes in category mix, while the upper percentile target as currently specified against completed rather than placed orders is overly challenging given current levels of performance.

**Comments in relation to the lower percentile target**

355. As Ofcom notes, Openreach's performance in the delivery of circuits that do not require additional network build (i.e. category 1) has been consistently acceptable.[47] Openreach understands the intention of this target to be for Openreach to continue to deliver the less complex circuits in acceptable lead times.

356. The lead times associated with this particular proposal are only consistently met for category 1 circuits. As set out in Figure 21 below, this was also true in the 'best' period of Openreach performance in Ofcom's analysis (calendar year 2011).

***Figure 21 – Mean time to provide by category in 2011***




357. Therefore, although Ofcom indicates in the BCMR Consultation that it does not intend to set minimum standard per category (an approach we support), this particular target is in effect a

[47] BCMR Consultation (May 2015), para. 13.66.

target in relation to performance for category 1 circuits, as is the proposed target that requires the same distribution of initial CDDs to the lower percentile speed measure.

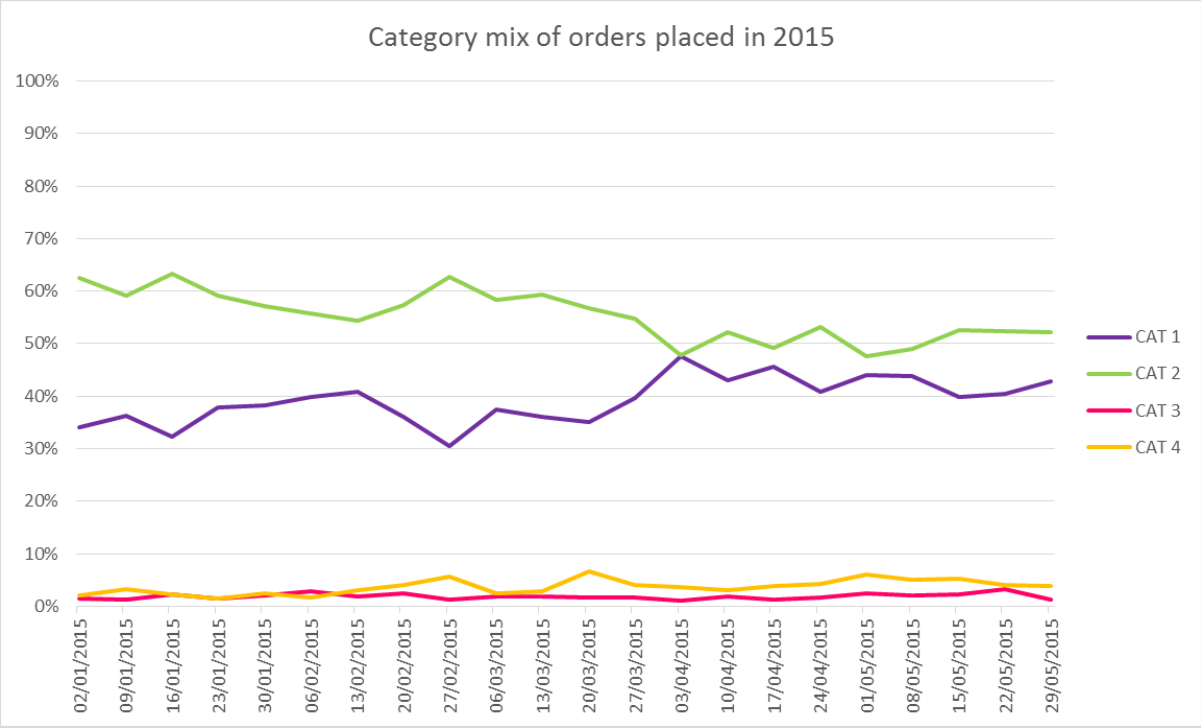
358. In this respect we are concerned that the ability for Openreach to consistently meet this target could be prejudiced by changes in the future mix of Ethernet orders by category type.

359. In essence, should the future proportion of category 1 orders fall below 40%, there is a high chance that Openreach would miss the minimum standards proposed due to exogenous factors, rather than due to any deterioration in Openreach's underlying performance.

360. Ofcom notes in the consultation that historically the proportion of category 1 orders has not changed significantly over time. A more up to date analysis on this topic is shown in Figure 22 below.

361. The problem with Ofcom's proposal is that future category mix is inherently unpredictable and historic performance may not be a reliable guide to the future pattern. As shown in Figure 22 below, we note that in terms of orders placed since the beginning of 2015, the proportion of category 1 orders has frequently been below 40%.

***Figure 22 – Category mix of orders placed during 2015***




362. It is very difficult to forecast future category mix with any degree of certainty. In part this is because there are a number of quite plausible scenarios that could either increase or reduce the proportion of category 1 orders, but where the timing and degree of impact (and the overall effect) are very difficult to predict with any confidence.

363. Table 4 above sets out a number of scenarios that could realistically occur during the period of the new control, and that would lead to a change in the category mix of orders, all other things being equal.

364. It is the inherent uncertainty that is problematic: should the proportion of category 1 circuits reduce in future, there is a high likelihood of Openreach failure against the lower percentile minimum standards as currently proposed in the BCMR Consultation.

365. Although Openreach is investigating opportunities to uplift network capacity, this is not likely to mitigate large scale swings in category mix that could be associated with underlying changes in the market. To do so would require a fundamental revision to the Openreach policy of capacity management which would result in very significant costs above those currently set to be recovered in the charge control. It is also likely that a proportion of such costs would be inherently inefficient as, given the uncertainty of future demand and circuit type, particularly when applied at a local level, network uplift would be speculative to some extent.

366. Without a change to Ofcom's approach in allowing the recovery of much more significant Openreach costs to fully mitigate against future category changes, which would bring other consequences such as relatively higher costs and prices that may not be desirable, future category changes are to a large extent exogenous to Openreach. It is not right that Openreach should fail the minimum standards imposed due to exogenous reasons. It should be noted that a change in future category mix could compromise Openreach's future ability to meet a number of the minimum standards being proposed by Ofcom, and not just the speed measures. The risk of this effect is particularly evident in relation to the lower percentile speed minimum standard.

367. We also note that the year 2 and 3 speed minimum standards are set below the current minimum contractual lead time for Ethernet circuit delivery which is set at 30 working days. This suggests that contract changes may be required in order to align with the minimum standards proposed.

368. Given that the historic performance in relation to category 1 orders is deemed to have been at a consistently acceptable level, this suggests that a lower percentile minimum standard of 30 working days across all three years of the new control period would be appropriate as a backstop of the minimum acceptable level of performance.

**Alternatives**

369. Openreach considers that Ofcom needs to revise its proposals to take account of the risks explained above. There are a number of options available to Ofcom in this regard.

370. Ofcom could impose the lower percentile target specifically by reference to category 1 orders rather than using a fixed percentage. This approach would maintain Ofcom's objective to incentivise Openreach to maintain consistently acceptable levels of performance for circuits that do not require additional network build, but remove the risk of failure due to future changes in category mix. This approach would, however, change Ofcom's general approach to avoid setting minimum standards by circuit category (which we generally support).

371. Alternatively, Ofcom could signal that, for the purposes of any future minimum standards compliance assessment, it would take into account the need to remove failures caused by exogenous factors such a change in category mix before concluding its assessment. We note that should Openreach's ability to meet any of the minimum standards proposed be compromised by future changes in the category mix of orders that Openreach is required to process, it would be appropriate for Ofcom's compliance assessment to ensure that Openreach was not penalised in such circumstances.

372. We note that Ofcom is imposing a new over-arching SMP obligation in relation to Openreach QOS, and that this new condition would allow Ofcom to re-specify its proposals within the timescales of the market review should conditions arise that would necessitate this.

373. Nevertheless we continue to consider that there is insufficient clarity on how changes in the category mix would be accommodated within any minimum standards compliance assessment, and that this lack of clarity creates a lack of certainty which is inherently unhelpful and at worst leaves Openreach open to future failure due to factors that are largely outside of its control.

374. We consider that it would be sensible to closely monitor changes in category mix over time, including (for example) the variance against recent baseline of performance, with a review set around +/- 10% moves in the relative balance. Openreach will continue to consider options in relation to this subject, and will make further submissions to Ofcom as appropriate.

375. One further option would be for Ofcom to set out more clearly the circumstances in which it would use the SMP condition to re-specify the regulation, and for such circumstances to explicitly include category mix changes that are likely to prejudice Openreach's ability to meet the standards imposed.

**Comments in relation to the upper percentile minimum standards**

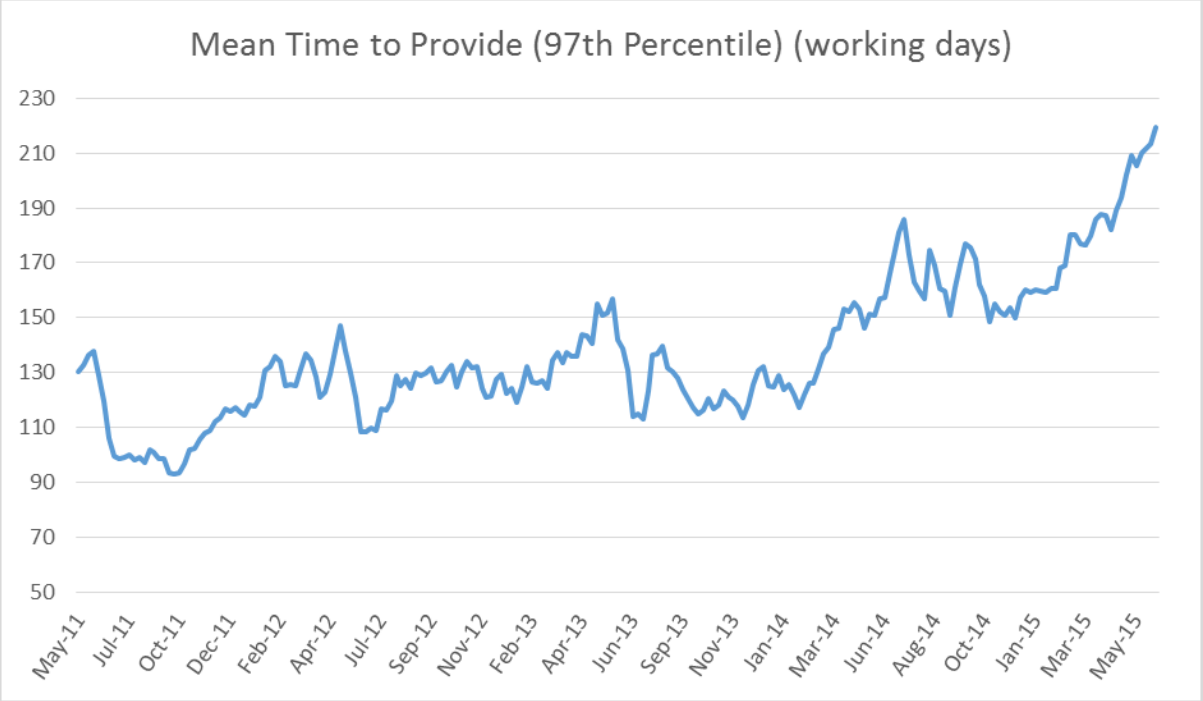
376. The idea of the upper percentile target is to minimise the number of circuits that take the longest to deliver. This target therefore deals with circuit types that are inherently the most difficult, typically because they involve the greatest amount of network build activity.

377. Openreach considers that the minimum standards as currently specified are likely to be difficult to meet. As set out in Figure 23 below, the underlying time it takes to deliver these types of circuit has been steadily increasing over time, with a marked deterioration in performance during 2015.

378. At the date of this response, around 6% of orders are at 159 days or more, with the average delivery timescale at the 97$^{th}$ percentile at around 200 working days. The analysis conducted so far by Ofcom is based on Openreach's performance from January 2011 to July 2014, and so does not capture the most recent performance.

379. The significant change in performance in relation to this particular minimum standard during 2015 also means that the general Ofcom principle of setting the year 1 speed minimum standards at a level similar to recent performance (which we support) is not actually reflected in the current target proposed.

***Figure 23 – Mean time to provide (97th percentile)***




380. Openreach continues to conduct detailed analysis in relation to circuits that take the longest time to deliver. This analysis will help to identify *inter alia*: (a) the factors driving the current performance; (b) the steps required to drive improvement in relation to these circuits; and (c) the likely future projection of Openreach performance.

381. Based on initial analysis, the recent deterioration that is evident in relation to this measure is principally an effect of a growing work stack, where although Openreach is completing more long lead time orders than previously, this has not kept pace with the rate at which new long lead time circuits are coming in. It is also evident that the majority of the circuits in the long lead time work stack are category 2b (duct is required) in nature (using DOJ terminology).

382. As noted above, Openreach continues to conduct analysis in relation to our future estimation of performance for circuits that take the longest to deliver (including those at the 97th percentile of speed performance). This is part of the same ongoing analysis that is being conducted in relation to certainty performance as referred to in the response to Question 13.11. Openreach will therefore be making further representations to Ofcom in relation to the upper percentile speed minimum standard when this analysis has been completed, and we expect to be in a position to do this by the end of August 2015.

**Completed versus placed orders**

383. Ofcom is currently proposing to measure compliance against circuits closed from the first day of the new control. We consider that this is the wrong approach to take as it imposes new SMP conditions in advance of the date when they will technically come into effect following due process (i.e. the retrospective application of regulation).

384. This effect is particularly problematic in relation to the upper percentile speed measure. As noted above, circuits that sit in the upper percentile measure are currently taking around 200 days to deliver. This means that a significant proportion of circuits that are currently in the process of a delivery will count towards Openreach's compliance in year 1 of the new control.

Given the current lead times for circuits at the 97th percentile, this will inevitably undermine Openreach's ability to meet the Ofcom minimum standards proposed.

385. As part of its improvement initiatives, Openreach is aiming to significantly increase the number of circuit completions it is able to process each week. This initiative has been broadly successful in relation to the overall population of circuits, as evidenced in Openreach's overall completions performance. However, there is more work to do in relation to reducing the work stack levels for circuits at the 97th speed percentile performance.

386. We consider that reducing the overall level of the Ethernet work stack is a desirable outcome that is likely to benefit the whole industry. We doubt that any party would disagree with this ambition, and Ofcom's proposals should incentivise this work stack reduction.

387. However, as noted above, a short-term effect of reducing the work stack is that there will be an increase in the average lead times as older circuits are completed and count towards the results. Given that the reduction of the work stack for orders at the 97th percentile is not yet effective, there is a very real risk that, should Ofcom stay with a measure of completed instead of placed orders as the means to measure compliance against the minimum standards, perverse incentives will be created for Openreach to avoid closing very long lead time orders for fear that this will impact on the performance against the minimum standards proposed.

388. This effect in theory affects all circuits, but would be particularly pronounced in relation to circuits that take the longest time to deliver.

389. Ofcom should consider moving to a measure of orders placed rather than completed, and should also find a way of separately dealing with completions that are associated with work stack reduction activity, such that they do not penalise Openreach in relation to compliance against the minimum standards.

390. Failure to do this will create a situation where Openreach is effectively subject to minimum standard requirements before such minimum standards come into effect, and will create perverse incentives in relation to the important intention to reduce overall Ethernet work stack levels.

391. Openreach therefore suggests that Ofcom changes the minimum standards so that they apply to orders placed from the first day of the new control period, rather than circuits completed from the first day of the new control period. It is likely that this need will be most pronounced for year 1 of the new control, and that the position could be reviewed to ascertain the most appropriate scheme for year 2.

392. We recognise that Openreach also needs to be incentivised to reduce the work stack levels for current orders, and so propose that these orders in the current work stack have their own improvement plan which would be subject to appropriate oversight and monitoring. This could include Openreach voluntary commitments, but which would not be covered by the minimum standards proposed.

393. In summary, Openreach considers that it would be appropriate for Ofcom to set the upper percentile speed minimum standards (in year 1 at least) by reference to orders placed from the beginning of the new regime, rather than for orders completed from the beginning of the new regime. Openreach recognises that in such a regime it should also be incentivised to make improvements in relation to long lead time circuits that are already within the work stack, and would suggest that this could be achieved by having a separate scheme to monitor and track progress but that is not covered by the minimum standards regime.

394. Irrespective of the approach finally adopted by Ofcom, Openreach will be making a further submission to Ofcom setting out the likely future glide of upper percentile performance including scenarios based on orders placed versus order completed. As part of this further submission Openreach will also set out further comments on how the Ofcom upper percentile minimum standard should be configured over the three years of the new control. Ofcom should take due account of this further submission which we expect to be able to provide by the end of August 2015.

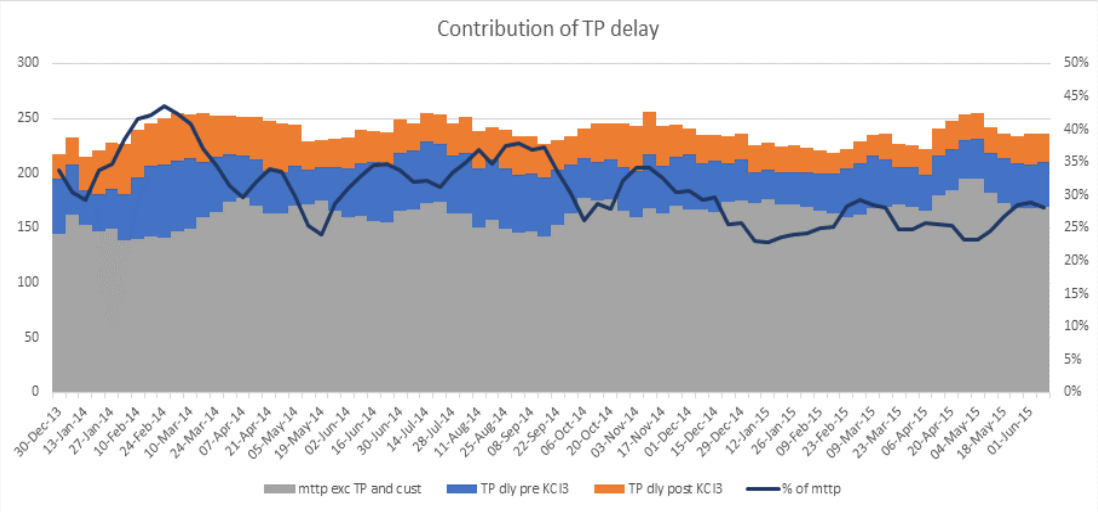
**Impact of traffic management and wayleaves**

395. Circuits at the 97th percentile of speed performance are also very heavily influenced by third party delays associated with traffic management and wayleave applications. Third party delay for circuits at the 97th percentile of speed performance is seven times more significant when compared with the overall population of circuits. As set out in Figure 24 below, third party delays typically constitute between 30% and 40% of the overall Mean Time To Provide (MTTP) for circuits at the 97th percentile of performance.

396. As set out in more detail the response to Question 13.6, Openreach does not consider that it is reasonable for Ofcom to include all of the non-customer delays within the minimum standards on the ground that significant parts of non-customer delays (in particular those relating to traffic management and wayleaves) are outside of Openreach's control.

397. This effect is most pronounced for circuits that have the longest lead times, and creates the very real possibility of Openreach failing minimum standards due to factors that are outside of its control. As set out in our response to Question 13.6, Ofcom should reconsider its proposals in relation to the treatment of non-customer delays, and only include those elements that are reasonably within Openreach's control. Ofcom will include considerations in relation to wayleaves and traffic management when it makes its further submission to Ofcom in relation to the upper percentile speed minimum standard at the end of August 2015.

***Figure 24 – Impact of third party delays (traffic management and wayleave applications) on long lead time circuits***



## Conclusion

398. In relation to the lower percentile minimum standards, Ofcom should ensure that Openreach does not fail because of factors that are outside of its control, such as future changes in the category mix.

399. In relation to the upper percentile minimum standards proposed, Ofcom should amend the minimum standards which (based on current performance and improvement trajectory) are unlikely to be achievable.

400. Ofcom should also reconsider setting the minimum standards by reference to orders placed rather than orders completed in the relevant measured time period. This could be supplemented with separate reporting obligations in relation to upper percentile circuits currently in the work stack.

401. Openreach is completing its analysis in relation to long lead time circuits, and will make a further submission to Ofcom at the end of August 2015 when this work has been completed. This further submission will include comments on how the upper percentile minimum standards should be specified during the three years of the new control.

***Question 13.14: Do you agree that it is appropriate to set the repair time minimum standard to 94%? Please provide reasoning for your answer. If you do not agree, please also give your proposed alternative.***

**There is no need to impose a minimum standard on repair**

402. Ofcom's assessment of Openreach repair performance over the period 2011 to July 2014 is that Openreach has been providing a good performance, and Ofcom wants to incentivise Openreach to continue to deliver on repair while we concentrate on improving our provision performance[48]. Ofcom further concludes that, over the same period, repair performance was consistently acceptable[49].

403. Ofcom also acknowledges that stakeholder responses to the April 2014 CFI did not raise repair performance as a major issue[50]. This is also supported by the BDRC QOS Report commissioned by Ofcom that shows that 88% of the leased line users surveyed agreed that they had confidence that if there was a fault on their Ethernet line, it would be resolved quickly[51]. The report also found out that "*reliability of performance was key for Ethernet leased line users in their choice of providers*"[52].

404. Furthermore, Ofcom has not identified any specific concerns with Openreach's repair performance that need addressing. Our repair performance over the period 2011 to July 2014 has remained consistently high ranging between 93.1% and 94.4%[53], and this is in the absence of any regulation requiring Openreach to achieve or exceed a specified level of performance. There is no indication that Openreach will fail to continue to provide consistently high levels of repair performance, including once the minimum standards for provision are in place. In fact, Openreach repair performance continues to remain high while work is underway to improve our provision performance.

405. There is no need for regulatory intervention in this area, and no justification for imposing a minimum standard on repair. This approach (i.e. to impose a precautionary minimum standard) is also inconsistent with the approach taken by Ofcom in the FAMR where Ofcom concluded that it was proportionate "*not to introduce precautionary minimum standards for other services to address the risk that quality of service for other services might suffer as a result of the imposition of minimum standards*".[54]

406. Ofcom is concerned that Openreach could meet the provision minimum standard at the expense of repair performance.[55] Ofcom could, however, address this concern with a more proportionate remedy. Specifically, Ofcom could instead use the mandated KPIs to monitor performance and only impose regulation at a later stage if repair performance were to fall below a level that Ofcom deems acceptable. Furthermore, the proposed new SMP condition on QOS (SMP condition 8) would enable Ofcom to introduce additional regulation fairly quickly and in any case before the next market review should Ofcom consider it appropriate. Our response to Question 13.15 discusses this in more detail.

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48 BCMR Consultation (May 2015), para. 13.172.

49 BCMR Consultation (May 2015), para. 13.176.

50 BCMR Consultation (May 2015), para. 13.175.

51 BDRC continental report – Ofcom Quality of Service: Ethernet Leased Lines 2014 (BDRC Quality of Service Report), section 5.7 on page 48.

52 BDRC Quality of Service Report, section 5.3 on pages 30 (summary) and 32 (section 5.3.2 – importance ranking)

53 BCMR Consultation (May 2015), para. 13.174.

54 FAMR Statement (June 2014), para. 11.68.

55 BCMR Consultation (May 2015), para. 13.111.

407. If, however, Ofcom does decide to mandate a minimum standard for repair, it should be set at a level appropriate for a precautionary measure reflecting the level below which Openreach performance should not fall. Ofcom should not simply set the minimum standard at the level of performance that Openreach currently achieves.

**The proposed minimum standard is too high for a precautionary measure**

408. Ofcom has set the minimum standard at the high end of a tight range of repair on time performance achieved by Openreach between 2011 and July 2014 (93.1% to 94.4%), but the higher performance was only achieved over a 6 month period (between January 2014 and July 2014) and does not represent a full year achievement. In contrast, in the FAMR, the minimum standards for both provision and repair were set at the lower end of the ranges under consideration. For provision, Ofcom set the minimum standard at a level which we had consistently performed at or above,[56] and for repair Ofcom tried to strike a balance between setting a reasonably high level of performance while at the same time keeping that level below the maximum achievable levels[57]. Ofcom is not striking such a balance with its proposal for the repair of Ethernet services.

409. To ensure that we consistently achieve on time performance for repair of 94% over the charge control period, Openreach would need to have plans in place to deliver a level of service well above that to mitigate against any risk of missing the minimum standard due to unforeseen events. This approach would be consistent with the approach taken in the FAMR where we exceeded all minimum standards for the first year of the control (2014/15). For provision, where the minimum standard has been set at the same level for the three years of the control, we exceeded the minimum standard at UK level, by 3.5% for Wholesale Line Rental and 5.5% for Metallic Path Facility[58].

410. As the minimum standard would only be set as a precautionary measure, it should be set at a level that ensures that performance going forward is maintained at the levels reported to Ofcom (93.1% to 94.4%) and not at a level that would in practice result in Openreach having to perform at a much higher level (with corresponding impacts on the charge control). To that effect, the minimum standard for repair performance should be set at 91%[59] and not 94% as is currently proposed.

411. In addition, faults that fail their SLAs and were also subject to MBORC are included in the results and so, to ensure we are "protected" against huge variations in that level of faults, Ofcom should set an allowance for MBORC of 2.5%. This is discussed in more detail in response to Question 13.7.

[56] FAMR Statement (June 2014), para. 11.202.

[57] FAMR Statement (June 2014), para. 11.195.

[58] 2014/15 year end performance results against the minimum standards for WLR and MPF submitted by Openreach (Matt Madden) via email to Ofcom (Chris Dodds) on 8 April 2015.

[59] This is the level below which the Openreach repair performance for period January 2011 to July 2014 never fell (BCMR Consultation (May 2015), Annex 17, para. A17.166).

***Question 13.15: Do you agree with our proposal to set a new SMP services condition which provides for Ofcom to direct BT to comply with all such quality of service requirements in relation to network access provided by BT pursuant to our proposed general and specific network access requirements? If not, please explain why***

412. Openreach agrees with Ofcom's proposal to impose a new SMP condition for QOS, enabling Ofcom to set directions in relation to minimum standards and KPIs.

**Flexibility in dealing with market uncertainties**

413. Imposing minimum standards for performance and new transparency measures via direction allows Ofcom to make any necessary changes and withdraw a direction, if considered appropriate. This is particularly important for setting the scope and boundaries of the minimum standards, as future unpredictable changes to the market could result in Openreach failing the minimum level of performance for reasons outside its control. For example, as mentioned in the response to Questions 13.12 and 13.13, the change in category mix may distort the way in which Openreach can comply with the minimum standards if there is a distinct alteration in the category proportions as they currently stand. By setting a direction, Ofcom could make changes to reflect any significant exogenous market changes.

414. Parts of the Ethernet provision process are particularly dependent on the outcome of third party interactions, such as traffic management and wayleaves approval. Future changes to traffic management legislation may impact the way in which Openreach can conform with the minimum standards, if this leads to further delays which are outside its direct control. Ofcom currently states that all non-customer delay, which includes traffic management applications, is on Openreach's clock and is counted towards any MTTP measure. It is therefore crucial that Ofcom remains flexible to changes in the proposed direction to allow for this to be amended if traffic management authorities increase the amount of delay time involved with applications – something that is clearly outside of Openreach's control.

415. Setting a new SMP services condition also allows Ofcom to monitor Openreach performance and impose additional regulation in the future, if required. The response to Question 13.14 sets out how Ofcom should use the mandated KPIs to assess Openreach repair performance and impose further regulation at a later stage if QOS falls below a particular level.

416. Ofcom could also use the new QOS SMP condition to set out proposals in relation to Dark Fibre KPIs at a more appropriate point in time (i.e. at the point when the Dark Fibre products are sufficiently well defined). This point is discussed in more detail in the response to Question 13.18.

**Direction alterations**

417. It is unclear how Ofcom proposes to make changes to a direction if so required. Ofcom should set out the way in which a direction would be altered and the circumstances that would lead to an alteration. Ofcom should also make clear the process by which it would consider a change in direction and the timescales involved. It would also be useful for Ofcom to provide examples of circumstances which would cause Ofcom to consider a change in direction, such as those mentioned above. Such a change should require a consultation to which interested parties are invited to respond, and Ofcom should make clear whether any decision around a change in direction is appealable.

## Conclusion

418. Setting a new SMP condition for QOS will allow Ofcom to make changes to the minimum standard and KPI directions if required at relatively short notice. This is beneficial both to Openreach, Ofcom and industry. The condition allows Ofcom to intervene and set further regulation if considered absolutely necessary to correct declining performance levels, but also to adjust existing directions if exogenous and unforeseeable market factors prevent Openreach hitting the minimum standards imposed. There is a particular degree of uncertainty around our ability to hit the minimum standards due to reasons outside of Openreach's direct control. Therefore the QOS SMP condition is an important mechanism to allow Ofcom to propose alterations to the directions within a relatively short time period.

***Question 13.16: Do you agree that it is appropriate to assess compliance with the proposed minimum standards on an annual basis? If not, please explain why***

**Comments in relation to provision**

419. We support Ofcom's proposal to assess compliance with the proposed minimum standards on an annual basis.

420. Ethernet delivery performance is affected by seasonal factors. For example, the lead up to the summer holiday period tends to bring high levels of demand, with lower demand post-Christmas.

421. In addition to seasonal factors, there can also be peaks in demand caused by other factors such as the roll out of projects associated with CP network build or end customer delivery activity. Demand peaks over the year are difficult to forecast accurately and under the current forecasting regime have to be accommodated within the existing workload.

422. As shown in Figure 25 and Figure 26 below, there is a high level of daily variation in demand, which becomes more pronounced at a sub-national level.

***Figure 25 – Daily demand intake in 2015/16 to date (National)***

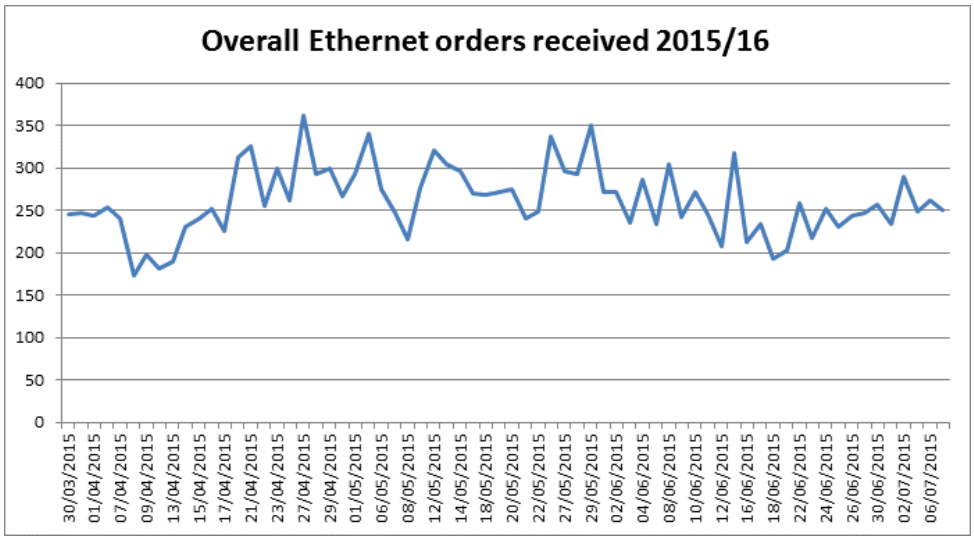
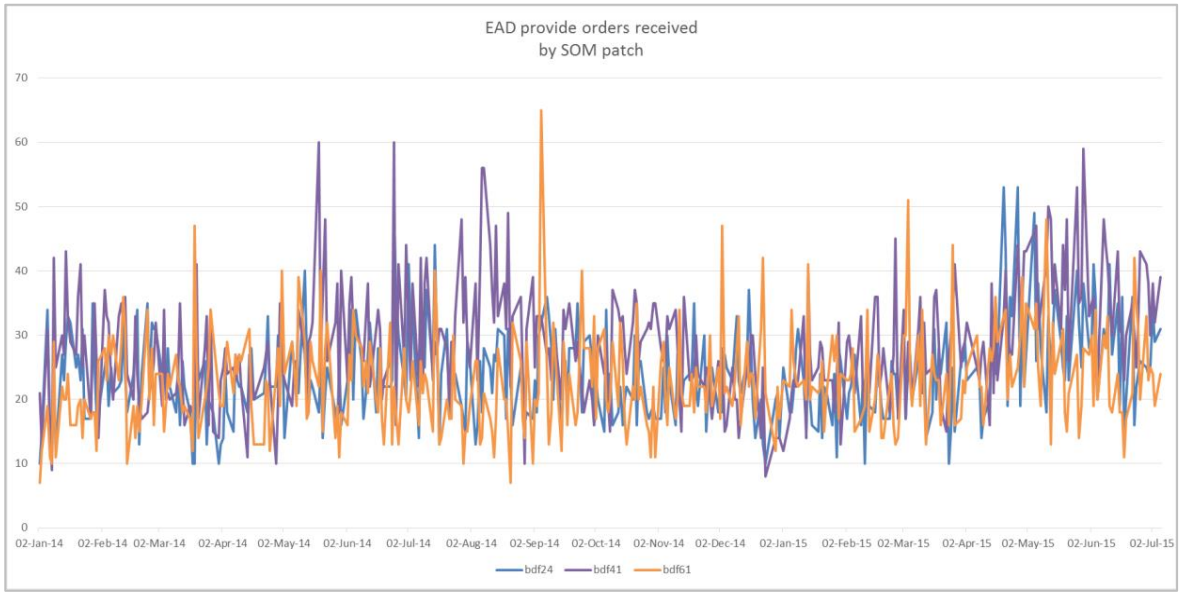


***Figure 26 – Ethernet demand at Senior Operations Manager (SOM) level Jan 2014 – July 2015***




423. There will therefore be periods during the year when delivery against the minimum standards will be relatively harder to hit due to seasonal and more local demand increases.

424. If the minimum standards were assessed over a shorter period, Openreach would need to resource the delivery teams to an inefficiently high level in order to have confidence that the minimum standards would be met at all times of year. In such circumstances, Openreach would expect that additional costs could be significant and that Openreach would need to be able to recover such costs via the regulated prices it charges for Ethernet services. Our expectation is that such an outcome is unlikely to be supported by industry.

425. Ofcom is also correct to note that there are other factors that exist in relation to Ethernet delivery that would further distort results measured on a shorter than annual basis:

- Ethernet volumes are very low relative to the copper products against which Ofcom imposed minimum standards in the 2014 FAMR (in which Ofcom adopted a policy of annual measurement). For example, the weekly demand for LLU and WLR services in 2014/15 was approximately 50 times greater than the equivalent weekly demand for Ethernet services.[60] Annual monitoring would help to avoid fluctuations due to the small sample size; and
- the lead time for some Ethernet orders are necessarily long, in particular where extensive new network build is required. The Ethernet lead times are also longer and more wide-ranging when compared to the FAMR products against which minimum standards were applied, where the latter (unlike Ethernet) are delivered over a largely pre-build national network and are typically installed in around 2 weeks, whereas Ethernet circuits typically take months to install (based on their level of complexity).

426. Finally, Openreach notes that, as part of its package of remedies, Ofcom will also be monitoring regional Ethernet performance on a monthly basis as part of the KPI proposals, and that a large subset of the KPIs will be subject to public scrutiny. Openreach also notes that the annual

[60] The Ethernet demand is the aggregate demand for EAD, EBD and Cablelink (i.e. the products against which Ofcom is proposing to impose minimum standards).

measurement of minimum standards that has been adopted in the FAMR for WLR and MPF has worked well.

427. In summary, the only reasonable approach to take is to apply minimum standards on an annual basis. Any other approach would inevitably result in the need for Openreach to resource to inefficiently high levels in order to meet the minimum standards.

**Comments in relation to repair**

428. We also agree that it is appropriate to measure performance against the repair minimum standard annually. Repair can be subject to fluctuations associated with local incidents, while the relatively small number of repair jobs for Ethernet could mean that measurement on a less than annual basis could produce results on relatively insignificant sample sizes.

***Question 13.17: Do you agree with our proposals to direct BT to comply with minimum performance standards for setting initial contractual delivery dates, delivery against initial contractual delivery dates, fault repair performance and overall mean time to provide? If not, please explain why, and set out your proposed alternative.***

**Comments in relation to the provision minimum standards**

429. Openreach understands Ofcom's view that it needs to introduce minimum standards in order to ensure Ethernet services are delivered to consistently acceptable levels and there are a number of aspects of the Ofcom proposals that we support, including:

- we agree that the two main considerations in relation to provision performance are speed of delivery and certainty of delivery. In addition to the Ofcom analysis using BDRC, these factors have also come out as the most important in our own discussions with CPs;
- we agree that for speed the right measure of performance is overall time to provide minus certain factors[61]. These measures are well understood by all parties and are likely to be the most meaningful in relation to the intent of Ofcom's proposals;
- we agree that for the certainty target the right measure of performance is the initial CDD minus certain factors[62];
- we agree that it is right to measure compliance against the minimum standards on an annual basis. This approach will help to negate seasonal variations and avoids creating measures that may be statistically insignificant;
- we agree with the need to set lower ('transitional') provision minimum standards in the early years of the control in order to provide Openreach with a reasonable time in which to make the changes necessary to meet the minimum standards;
- we agree that it is right to remove customer delay through the whole of the delivery process (both pre and post the setting of the initial CDD) in measuring compliance against the minimum standards imposed; and
- we agree with the proposal to measure the minimum standards on a national basis. This is the most reasonable approach given the risks associated with operational flexibility and statistically insignificant sample sizes that would come with application at sub-national levels.

430. However, and as set out in more detail in our responses to Questions 13.10 to 13.14 above, we have a number of concerns in relation to the detail of Ofcom's proposals that we consider need to be addressed in order to make the proposals proportionate and workable. In particular we consider that:

- the levels of the certainty minimum standards (80%, 85% and 90%) are not based on any meaningful assessment of what is likely to be achievable through the new control period, and do not take sufficient account of a number of relevant factors including the historic Openreach performance on a like for like basis, the timetable for DOJ roll-out, and the extra complexity required in running two provision processes (existing and DOJ) during the early years of the control. Based on our assessment of these factors a year 1 certainty target of 72% would be more appropriate and proportionate;
- similarly the year three certainty target needs to be revised to take account of the upper levels of performance that could be realistically attained by Openreach. We consider that the 90% currently proposed is likely to be set at too high a level. Openreach will be making a further submission to Ofcom in relation to this point at the end of August 2015;

[61] For example, the removal of customer-related delay.

[62] For example, the removal of customer-related delay.

- the proposal to link the speed and certainty measures is intended (as we understand it) to reduce the risk of Openreach gaming the certainty target by offering overly conservative initial CDDs. In reality, however, this proposal creates a number of significant negative consequences:

    - in relation to the existing provision process, the proposal effectively means that any date management after the provision of the initial CDD at KCI3 will lead to a failure against the measure if any Openreach or third party deemed consent is applied;
    - in relation to DOJ, this proposal effectively creates a second speed measure (above and beyond that already proposed by Ofcom) which undermines the whole DOJ approach;

- the proposal to include all of the non-customer delay on 'Openreach's clock' for the purposes of measuring compliance with the minimum standards is inherently unfair in that it includes a number of factors that are outside of Openreach's control;
- the lower percentile proposals are subject to the risk of failure due to future changes in the category mix of circuit orders which is largely outside of Openreach's control; and
- the upper percentile proposals are likely to be difficult to achieve and need to be revised to better account for current levels of performance and realistic (but challenging) improvement plans. Openreach will be making a further representation to Ofcom in relation to the upper percentile minimum standards proposed at the end of August 2015.

**Placed versus completed orders**

431. Ofcom currently proposes to measure compliance against the minimum standards by reference to orders completed on the day the new controls come into effect through to orders completed on 31 March 2017. Openreach considers that it would be more reasonable for Ofcom to measure compliance against orders placed during the relevant compliance year.

432. The current Ofcom proposal effectively means that new regulation will apply in advance of that regulation technically coming into operation following the final statement. This effect is inherently problematic, and is a particular issue in the BCMR market given the relatively long and variable lead times for Ethernet services.

433. If this condition were to remain in place, large numbers of Ethernet circuits that were ordered potentially months in advance of the new regime coming into effect would count towards compliance in the new regime. Given that Openreach is undertaking significant preparatory work to ensure that it can meet the standards that are finally decided, this proposal appears to us to be unfair and should be amended to be in relation to orders placed.

434. As noted in the response to Questions 13.12 and 13.13, this effect is particularly problematic in relation to the upper percentile speed minimum standards, where we consider it will be more appropriate for Ofcom to base its final proposals on orders placed rather than orders completed from the start of the new compliance regime, and that such an approach could be supplemented with a monitoring programme (not based on minimum standards) for circuits in the existing work stack.

435. Although we recognise that this change would mean that the formal compliance assessment by Ofcom would need to be a number of months after the end of the relevant compliance year, this is a far less significant issue that the implications outlined above. This effect is also most pronounced in the first (transitional) year of the new control, and the position could be reviewed for years 2 and 3.

### Proposals in relation to the provision minimum standards

436. As set out in more detail in our responses to Questions 13.10 to 13.14 above, Openreach believes that the minimum standards would be improved through a number of modifications. We consider that these modifications would render the proposals more proportionate and reasonable, but without diluting Ofcom's policy objectives.

437. A summary of Openreach's proposals is set out in Table 8 below.

***Table 8 – Openreach proposals in relation to the provision minimum standards***

| Area | Proposal |
|---|---|
| Certainty minimum standards | 72% in year 1. Upper bound to be confirmed following further assessment but likely to be below the 90% currently proposed |
| Linkage of certainty minimum standards to speed minimum standards | Remove and replace with monitoring remedy |
| Inclusion of all non-customer delay in the minimum standards | Either exclude third party elements of non-customer delays, or exclude those elements of third party delays that are outside of Openreach's control |
| Changes in category mix | Specify the minimum standards so that Openreach is not penalised by changes in category mix over time. The issue for Openreach is most immediately relevant to the lower percentile speed minimum standards |
| Orders placed versus completed / Upper percentile minimum standards | Revise minimum standards to be on placed orders. The issue is most immediately relevant to the upper percentile speed minimum standard where proposal could be supplemented with monitoring remedy not based on minimum standards for circuits that are part of the existing work stack |

### Comments in relation to repair

438. With regard to repair, and as set out in detail in our response to Question 13.14, we do not believe that there is any need to impose minimum standards.

439. If, however, Ofcom does decide to mandate minimum standards for repair, we consider that it would be more appropriate to set a minimum standard at a level of 91% for the three years of the control, with an appropriate allowance for MBORC (2.5%).

***Question 13.18: Do you agree with our proposals to direct BT to provide the KPIs we have specified? If not, please explain why, and set out your proposed alternative.***

**Openreach's current activities in relation to transparency**

440. Openreach is supportive of transparency, as evident in our own voluntary publications. As noted in the response to Question 13.4, in terms of specific Ethernet reporting, Openreach produces the Industry Service Pack (for Ofcom and CPs) and the Ethernet Service Pack (for Ofcom) on a monthly basis, both reporting significant amounts of KPI information. Openreach also holds a bi-weekly 'Ethernet update call' for CP customers, run by Openreach senior management within BCD, and participates in the Ethernet Service Forum, a monthly meeting between Openreach, industry and the OTA2. Openreach is also voluntarily publishing Ethernet KPI data on a new public website titled 'Our Responsibilities'.[63]

441. In addition to the data already available to CPs and end customers, we are generally supportive of the Ofcom proposals to provide the KPIs specified, subject to a small number of comments.

**The public KPIs should be derived from the main set**

442. Openreach agrees that a subset of the defined KPI list should be made available on a public website for end customers and other interested parties. As mentioned above, Openreach has been publishing similar data since November 2014, notably MTTP (split by 'on-net' and 'off-net,' which was considered appropriate for an external audience) and repair performance.

443. Openreach believes that the subset of KPIs that Ofcom has specified to be 'public' should be derived from the information required in the main KPI set, to allow for more flexibility when targeting a public audience. This method was adopted in the 2014 FAMR and has meant that Openreach (with Ofcom's input) was able to create a set of KPIs which is more appropriate for an end customer audience. Openreach believes that the way in which the public copper KPIs have been created has enabled end customers to understand the KPIs that are most appropriate to them – something that should be reflected in the BCMR and public Ethernet KPIs.

**Presentation of public information**

444. Due to the relatively low volumes of Ethernet Services, monthly reporting is more likely to show fluctuations and changes in trends of performance that are likely to be due to a smaller sample size. Quarterly public reporting would therefore be a more meaningful guide of performance to end customers and external audiences.

445. Ethernet circuits are often delivered over a 2-3 month period (between 60-70 working days with all types of customer delay included). Reporting on a quarterly basis would offer a much more meaningful trend as it would be more reflective of the experience of the overall delivery cycle time for end customers.

**Dark Fibre KPIs**

446. Ofcom is also proposing to direct BT to provide KPIs on Dark Fibre once the product is launched.[64]

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[63] This can be found on the Openreach website at: http://www.homeandwork.openreach.co.uk/Our-responsibilities/

[64] BCMR Consultation (May 2015), para. 9.143.

447. Openreach does not object to the publication of KPIs to enable Ofcom to monitor performance outcomes on the product and to provide CPs with visibility of the performance levels it achieves. However we believe that specifying the KPIs for the basic Dark Fibre product at this point in time is premature.

448. The basic Dark Fibre product will not be available for at least another 18 months and still needs to be specified. Ofcom itself recognises that "*not all of Openreach KPIs for Ethernet will map directly onto the dark fibre product*".[65]

449. On that basis, we suggest that Ofcom should wait until the basic Dark Fibre product has been fully specified before determining the KPIs that should apply. The new QOS SMP condition (condition 8) would enable Ofcom to modify the KPI direction within a relatively short period of time and as soon as the basic Dark Fibre product specification has been finalised.

450. Finally, we agree with Ofcom that the reporting obligations should not come into force immediately following launch but after a suitable period of time to ensure the provision and repair processes have bedded in and the product is being used by CPs. Openreach will have a better view as to how long this period should be once the implementation work is further advanced.

**Implementation and Reporting**

451. Ofcom should allow Openreach 14 working days after the end of the relevant month to publish the public KPIs on Openreach's website and to send the full KPI report to the designated person within Ofcom. A considerable amount of time is required to prepare the reports, with data coming from multiple sources that has to be aggregated. Reports will also need a significant checking process, particularly when the reports are first published, to ensure quality.

452. Since the BCMR Consultation was released, Ofcom has indicated to Openreach it is interested in a different cut of regional data for policy reasons. Openreach will seek to accommodate this request, but may require more time than originally requested to split the data in the way that Ofcom wishes it to be specified. If new regional splits were to be requested, these would have to be clearly defined in terms of geographies and exchange locations and will undoubtedly require more time to define the new reporting mechanisms and test for accuracy.

453. As Ofcom has not found BT to have SMP in the CLA or in particular routes between data centres, the KPI direction does not apply in these areas. This means that Openreach will be required to extract data that relates to these geographic areas. This may also require additional time to accurately split out these areas in order to report to Ofcom's specifications.

454. Ofcom should consider that, with the roll out of DOJ on EMP, there will be two different provision processes running concurrently on legacy and EMP for a period of time. This may have implications on the reporting processes, for example, there will be two different sets of provision categories in use at the same time, and it may mean that Openreach requires additional time to aggregate the reports from two systems.

455. It will also take a considerable period of time to build the new reporting specifications on to EMP, which will require systems updates in suitable EMP releases. We are currently evaluating the work required and timescales associated with implementing the Ofcom KPIs over EMP. There are various release cycles associated with system updates to EMP and any new KPI reporting requirements will be prioritised where possible. We do not envisage there being any

[65] BCMR Consultation (May 2015), para. 9.145.

particular issues, however any system amendments and updates can only be made through scheduled formal releases and not on an ad hoc basis. We will provide Ofcom with further updates if additional time is needed.

456. Should the production of the mandated KPI reports be delayed due to the reasons above, Openreach suggests that, where possible, reports are backdated to the implementation timescales that are set by Ofcom. For example, Openreach could submit the first KPI report to Ofcom in July 2016, which relates to April 2016 performance KPIs. Ofcom would therefore still obtain all of the data it requires. This does depend on the availability of the data, and whether the data required is unobtainable due to awaited EMP updates. If the recent historic data is available, Openreach would then continue to produce the reports for the next month until reports are published 14 working days after the end of the last month.

**Conclusion**

457. Openreach has already taken several steps to promote transparency on Ethernet service performance. Openreach supports Ofcom's decision to mandate a new KPI report for Ethernet services to monitor and track performance over the market review period. Openreach asks that Ofcom considers reporting public KPIs on a quarterly basis and deriving the KPIs that are made public from the main set that Openreach will report directly to Ofcom. Ofcom should take account of the timescales involved in providing report over EMP. Ofcom should also re-evaluate whether it is appropriate to mandate Dark Fibre KPIs at this stage.

***Question 13.19: Do you agree with our proposals to maintain the existing SLG direction? If not, please explain why, and set out your proposed alternative.***

458. Regarding the proposed SLG Direction (which is in the same terms as the current Direction), Ofcom needs to include provision in the Direction allowing it to dis-apply the Direction if necessary to Openreach's current 'legacy' portfolio of Ethernet products, Openreach has already withdrawn some of these products from new supply (WES/WEES/BES services up to and including 1Gbit/s) but it continues to support existing legacy circuits. Openreach currently intends to reduce support for these circuits as from 1 April 2018. Industry has been informed of this date.

459. Openreach's principal supplier (ADVA) is withdrawing the key components (FSP500) that deliver our WES, WEES and BES products. These NTEs (FSP500) have been superseded by more efficient and sustainable EAD NTEs (FSP150) which are not compatible with WES, WEES and BES services. The reduction in product support will encourage CPs to migrate legacy services to EAD, which will enable Openreach to shut down the legacy platform (given the inefficiency of running two platforms simultaneously).

460. CPs will be able to continue to use legacy circuits after April 2018, but Openreach's current plans (which may be subject to change) are to no longer support NTE faults from this point, whilst continuing to repair fibre faults. Given the additional time it takes to fix fibre faults, Openreach considers that a 5 hour repair SLA in relation solely to fibre faults would not be appropriate.

461. At this point, Ofcom will need to amend the Direction, to exclude these legacy circuits from the repair SLG in the SLG Direction. Otherwise, Openreach will be obliged to continue to pay SLGs for circuits which it is no longer fully supporting. This would also create barriers to the migration from legacy services to EAD.

462. Openreach notes that within the Ofcom legal instruments, Ofcom is not proposing to implement caps on the provision and repair SLG schemes for the entirety of the Ethernet products. We assume that this is an error and that caps will be applied in the final statement.

***Question 13.20: Do you agree with our proposals regarding the conduct of, and principles and criteria to be applied from now on, to contractual negotiations concerning SLA/SLGs for the provision of Ethernet services? If not, please explain why, and set out your proposed alternative***

463. Our comments as set out in the response to Question 13.19 aside, it is right that the existing schemes remain in place until such time as industry reaches a negotiated agreement or the scheme is re-specified by Ofcom if agreement cannot be reached through industry negotiation. This is the only practical option available to Ofcom and will provide all parties with certainty during the period in which the negotiation is ongoing.

464. Although Openreach has a number of concerns in relation to the composition of the existing Ethernet SLA/SLG schemes, particularly the provision scheme, we agree with Ofcom that the correct process to amend the existing schemes should be via a process of industry negotiation and not regulatory intervention.

465. In relation to the process for changing SLA/SLG schemes, we agree with Ofcom's proposals in relation to the process for changing existing SLA/SLG schemes or introducing new schemes.

466. Ofcom is effectively proposing to adopt the negotiation process that was applied following the 2014 FAMR. It is therefore worthwhile considering how that process has functioned since its introduction. In Openreach's view, the process has worked well. In particular, the OTA2 has done a good job in providing independent and even-handed facilitation whilst ensuring the constructive participation of stakeholders. The framework set out by Ofcom, including the evaluation criteria and negotiation principles, has also enabled participants to work within a clear set of guidelines that have been important in keeping discussions focussed and constructive.

467. The output from the FAMR process to date shows that it has been effective. Since its introduction, of the 12 requests made across Openreach and industry there have been 2 where the parties have agreed to withdraw the request, and of the remaining 10, 8 have been agreed and fully implemented. For the remaining 2 requests, the parties have agreed on a way forward on aspects of these proposals, and agreed to disagree on other aspects. To date, the need for direct Ofcom intervention has been minimal.

468. In our view this represents a significant evolution to what went before, both in terms of the number of changes made, the timeliness of those changes and to the quality and constructiveness of the underlying discussion in relation to individual negotiations.

469. Openreach has positively and proactively contributed to the effective operation of the new process. For example in the 2014 FAMR Openreach started using the new process in advance of it technically coming into effect on the date of the FAMR Statement. Openreach has also constructively participated in discussions, and has fielded appropriate representatives to ensure progress is made. Openreach also agreed to changes for the Cablelink repair scheme through this process, notwithstanding the fact that Cablelink is not part of the Fixed Access markets.

470. As Ofcom will be aware, the process for re-negotiating the existing Ethernet provision SLA/SLG scheme has commenced under OTA2 facilitation. Again, this is notwithstanding the fact that the negotiation obligations do not formally exist in the BCMR. It is important that Ofcom allows this process to continue to a conclusion. Should agreement be reached through the process, it is also important that Ofcom is able to update the terms of the scheme quickly.

471. In summary, Openreach agrees with the Ofcom proposals in relation to SLA/SLG schemes. The negotiation process scheme first set out in the FAMR has worked well, and the same framework should be applied in relation to BCMR services. This scheme should enable both CPs and Openreach to table proposals, and we request that Ofcom explicitly recognises this in its final proposals.

472. Finally, Openreach has commissioned WIK-Consult to conduct two sets of analysis in relation to the Ethernet SLA/SLG schemes. The first report is a European benchmark of Ethernet SLA/SLG schemes. The second report is a more detailed assessment of the provision SLA/SLG schemes across certain European countries, and also contains an assessment of the incentive properties of SLA/SLGs. These reports are attached as Annexes A and B to this response.