
Business Connectivity Markets

Temporary SMP conditions in relation to business connectivity services

Redacted for publication [✂]

STATEMENT:

Publication Date: 23 November 2017

About this document

In April 2016 Ofcom completed its Business Connectivity Market Review, which is our examination of the markets for the provision of leased lines to businesses in the UK. Leased lines are high-quality, dedicated, point-to-point data transmission services used by businesses and providers of communications services. As well as being essential components of many businesses' communications systems, they are also essential to support the provision of mobile telephone and fixed residential broadband services.

As a result of an appeal brought by BT against certain aspects of the market definitions in the 2016 review, Ofcom is required to reconsider a number of issues in a new analysis of the markets. In the meantime the regulation of the services affected by the appeal, principally Ethernet services, has to be removed.

As it will take some time to complete the new analysis, we have considered what steps are appropriate to safeguard competition and protect the interests of consumers in the intervening period. Under the Communications Act 2003, Ofcom has the power to make temporary arrangements for reasons of urgency and where exceptional circumstances apply. This statement therefore imposes, in the period until March 2019, temporary regulation for the services and areas where we continue to find that BT has significant market power in order to safeguard competition and protect the interests of consumers until the new analysis is completed.

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1. Ofcom's decision to impose temporary measures

- 1.1 Ofcom conducted its 2016 Business Connectivity Market Review¹ (BCMR 2016) on a forward-looking basis to cover the period from April 2016 to March 2019.
- 1.2 The Business Connectivity Market Review is our examination of the markets for the provision of leased lines to businesses in the UK. Leased lines are high-quality, dedicated, point-to-point data transmission services used by businesses and providers of communications services. As well as being essential components of many businesses' communications systems, they are also essential to support the provision of mobile telephone and fixed residential broadband services.
- 1.3 Ofcom found BT to have significant market power in the provision of Contemporary Interface Symmetric Broadband Origination (CISBO) services in the London Periphery (LP) and the Rest of the UK (RoUK) but not in the Central London Area (CLA), and imposed regulation to protect the interests of consumers and to promote competition.²
- 1.4 The Competition Appeal Tribunal (the Tribunal) has found that Ofcom made some specific errors in relation to the 2016 BCMR Statement market definition. On 20 November 2017, the Tribunal ordered Ofcom to revoke its significant market power (SMP) findings and regulatory conditions in respect of BT for all CISBO services.³ Ofcom has therefore published today a notification revoking the relevant measures with effect from Monday 27 November 2017.⁴
- 1.5 Ofcom has begun the process of considering the matters remitted to it by the Tribunal. Further analysis and evidence gathering will be needed to address the remitted matters. Since it will take time to complete this work, we have considered what steps it is appropriate to take to protect the interests of consumers during the intervening period.
- 1.6 Ofcom has the power to make temporary market identifications, market power determinations and impose temporary SMP conditions and directions without consultation where in Ofcom's opinion:

¹ A summary of the BCMR 2016 can be found in *Business Connectivity Market Review*, 28 April 2016, Volume 1, Section 1 (the 2016 BCMR Statement). <https://www.ofcom.org.uk/consultations-and-statements/category-1/business-connectivity-market-review-2015> When referring to the BCMR 2016 or the 2016 BCMR Statement, we also refer to our subsequent decision to amend the way in which non-domestic business rates are treated in the calculation of the dark fibre price as set out in our statement *Non-domestic rates and the price for regulated Dark Fibre*, 30 June 2017 (the 2017 NDR Statement), https://www.ofcom.org.uk/_data/assets/pdf_file/0021/103647/statement-non-domestic-rates-dark-fibre.pdf

² CISBO services include Ethernet services and wave division multiplex (WDM) services of all bandwidths, as well as Ethernet First Mile (EFM) services (2016 BCMR Statement, paragraph 4.2). The RoUK excludes the CLA, the LP and the Hull Area.

³ <http://www.catribunal.org.uk/237-9285/1260-3-3-16-British-Telecommunications-.html>

⁴ Ofcom, *Business Connectivity Market Review 2016, Revocation of certain measures imposed in the business connectivity markets*, 21 November 2017, https://www.ofcom.org.uk/_data/assets/pdf_file/0018/108018/BCMR-Revocation-Notification.pdf

- a) there are exceptional circumstances; and
 - b) there is an urgent need to act in order to safeguard competition and to protect the interests of consumers.⁵
- 1.7 As explained in more detail below, Ofcom considers that the current circumstances are exceptional in that they result in the removal of all regulation in the CISBO markets, and that there is an urgent need to act because of the risk of competition problems arising immediately in relation to services where it is clear that BT has SMP.
- 1.8 In considering what steps it is appropriate to take we have taken into account the Tribunal's reasoned judgment, reaching conclusions where we have been able to conduct the analysis necessary to address the Tribunal's findings or where it is clear that our conclusions would not be affected by the Tribunal's findings. We have relied on those parts of Ofcom's reasoning and analysis from the BCMR 2016 which the Tribunal's judgment did not overturn, taking into account new evidence that has arisen since the completion of the BCMR 2016. We also take into account that we are acting on an urgent basis, under exceptional circumstances, and in the absence of a consultation, and therefore consider it appropriate to adopt a cautious approach to imposing regulation on BT (as explained in more detail below).
- 1.9 For the purposes of this statement we have concluded that BT has SMP:
- a) in a market comprising wholesale leased line services of all bandwidths at and below 1Gbit/s using contemporary interface (CI) technologies⁶ (collectively referred to as Lower Bandwidth CISBO) in the LP;
 - b) in markets comprising Lower Bandwidth CISBO services in the central business districts (CBDs) of each of Bristol and Manchester; and
 - c) in a market comprising Lower Bandwidth CISBO services in the RoUK excluding the CBDs of Bristol, Birmingham, Glasgow, Leeds and Manchester (RoUK excluding the Five CBDs).⁷
- 1.10 We have also defined markets comprising Lower Bandwidth CISBO services in the CBDs of each of Birmingham, Glasgow and Leeds and the CLA. However, we have not made an SMP finding in relation to these markets.
- 1.11 In addition to the above SMP designation for CISBO terminating segments, we have also considered the scope of the competitive core (CI Core). The Tribunal found that we erred in our approach in the 2016 BCMR Statement, as it may have meant that we excluded some exchanges despite them being competitive. We have therefore expanded the scope of the CI Core to include these potentially competitive exchanges. For the purposes of this statement, the CI Core consists of links between any of: (a) the 107 exchanges specified in

⁵ Under sections 80A(2), 80(1A), 48A(2) and 49A(2) of the Communications Act 2003.

⁶ This market includes EFM but excludes WDM services of all bandwidths.

⁷ For the purposes of this statement we refer to the Five CBDs to mean the CBDs of Birmingham, Bristol, Glasgow, Leeds and Manchester.

this statement; (b) the 56 trunk aggregation nodes (TANs) that we identified in the 2013 BCMR Statement⁸ (excluding links between exchanges within the same TAN); and (c) the 64 data centres identified in the 2016 BCMR Statement.

1.12 Where BT has SMP, Ofcom has imposed the remedies set out in Table 1.1 below. The remedies will come into effect on Wednesday 29 November 2017, with the exception of the charge control and minimum quality standards which will come into effect on Friday 1 December 2017.

Table 1.1: Overview of temporary remedies in the Lower Bandwidth CISBO markets in which BT has SMP

Remedies imposed on BT
<ul style="list-style-type: none">• General remedies:<ul style="list-style-type: none">– Requirement to provide network access on reasonable request– Requirement not to discriminate unduly– Equivalence of Inputs– Requirement to publish a reference offer– Requirement to notify changes to charges terms and conditions– Requirement to notify technical information– Accounting separation– Cost accounting• Specific access remedies• Charge controls• Minimum quality standards

1.13 We set out our assessment and decision of general remedies in section 3, specific remedies in section 4, charge controls in section 5 and minimum quality standards in section 6. We note that although the Tribunal's order requires the revocation of the remedies imposed in the CISBO markets, the evidence and Ofcom's analysis of remedies was not considered by the Tribunal and was not overturned.

1.14 Our assessment of proportionality of the temporary conditions and directions, including whether they are in accordance with sections 45 – 47, 49, 87 and 88 of the Act, is set out in sections 3 to 6. Ofcom has not imposed a dark fibre remedy at this stage, and we have today published a consultation on whether it would be appropriate to add a temporary dark fibre remedy to the package of temporary remedies imposed under this statement. This includes a consultation on the market definition and SMP findings adopted in this statement.⁹

⁸ Ofcom, *Business Connectivity Market Review*, 28 March 2013. <https://www.ofcom.org.uk/consultations-and-statements/category-2/business-connectivity-mr>

⁹ Ofcom, *Dark Fibre Consultation, Consultation on adding dark fibre to the remedies for business connectivity markets*, 21 November 2017, (the 2017 Dark Fibre Consultation), https://www.ofcom.org.uk/_data/assets/pdf_file/0014/108032/Dark-Fibre-Consultation.pdf

- 1.15 The conclusions we have reached in this statement, particularly in relation to services where we have not found SMP, are specific to the current exercise of deciding what measures are appropriate to take on an urgent basis and in the absence of consultation. As part of our subsequent reviews of business connectivity markets, we will consider any evidence which suggests that BT is exploiting market power in any of the unregulated areas or products, for example in relation to the levels of prices or the quality of service provided.
- 1.16 We are prioritising work on the remitted matters, as soon as it is completed we will remove the temporary measures contained in this document. Although we will seek to reach conclusions earlier, for the purposes of this statement we consider it is appropriate for the temporary market identification, market power determinations and remedies to apply until March 2019.

Statutory tests for temporary measures

- 1.17 As noted above, Ofcom has the statutory power to make temporary market identifications, market power determinations and impose temporary SMP conditions and directions without consultation where in Ofcom's opinion:
- a) there are exceptional circumstances; and
 - b) there is an urgent need to act in order to safeguard competition and to protect the interests of consumers.
- 1.18 Although the market identification, market power determinations and the imposition of temporary remedies are distinct parts of our decision, the consideration of urgency and exceptional circumstances is substantially the same in each case.

Urgent need to act

- 1.19 As explained above, Ofcom is now conducting a new analysis of the market which takes into account the Tribunal's judgment. Although we will conduct this exercise as quickly as practicable, the removal of regulation will create a significant regulatory lacuna.
- 1.20 Having been notified of the Tribunal's ruling on 26 July 2017, Ofcom has had the opportunity to consider what steps it considers appropriate to take to address the regulatory lacuna. The Tribunal's judgment of 10 November 2017 has now enabled us to decide on the appropriate next steps.
- 1.21 The removal of regulation affects a significant part of the telecommunications sector in the UK. There are more than 300,000 CISBO circuits across the UK, which support a range of downstream services and applications and play a significant role in delivering fixed and mobile services to consumers. Ofcom found in the BCMR 2016 that the industry relied heavily on active leased line remedies, in particular access to CISBO services of 1Gbit/s and below on regulated terms including price.¹⁰ We consider that this continues to be the case.

¹⁰ 2016 BCMR Statement, Volume 1, paragraph 1.33.

In the absence of regulation there are therefore significant risks for competition and consumers. These risks will persist for a significant period, as the exercise of conducting a new analysis will take time to complete.

- 1.22 In the BCMR 2016, we regulated BT's CISBO circuits outside of the CLA. The vast majority of these BT circuits¹¹ (approximately 96%) fall within the markets where we conclude in this statement that BT has SMP.
- 1.23 In the 2016 BCMR Statement, Ofcom identified a number of competition problems associated with its SMP findings in that review. In relation to BT, these were:
- a) concerns that, in the absence of appropriate *ex ante* regulation, BT would not make access to its networks, services or associated facilities available on terms that would secure efficient investment and innovation, both in the relevant wholesale markets and in the related downstream retail markets;
 - b) concerns that, in the absence of appropriate *ex ante* regulation, BT would favour its downstream retail businesses to the detriment of their competitors in the relevant retail markets (including by price or non-price discrimination);
 - c) concerns that, in the absence of appropriate *ex ante* regulation, there is a relevant risk of adverse effects arising from BT fixing and maintaining some or all prices at an excessively high level or imposing a price squeeze; and
 - d) concerns that, in the absence of appropriate *ex ante* regulation, there is a risk that the poor quality of service offered by BT in the provision and repair of wholesale services will impact detrimentally on all downstream providers of leased lines, including BT's retail businesses, and ultimately to the detriment of consumers.¹²
- 1.24 Ofcom considers that these competition problems are equally likely to apply to the services and markets in relation to which Ofcom has determined BT to have SMP in this statement. This is because they are in large part the same as the services in which BT was held to have SMP in the 2016 BCMR Statement. BT continues to have both the incentive to exploit its SMP and (absent regulation) the ability to do so.
- 1.25 As a result, Ofcom considers that a period without regulation would carry the risk of significant negative effects on competition and consumers:
- a) CPs that need to purchase new leased lines or upgrade existing ones, and that are not able to defer purchases until such time as Ofcom is able to put regulation back in place, will be unprotected from the competition problems that Ofcom has identified.
 - b) Some CPs may defer purchases that would otherwise have been made during the unregulated period (given they are unprotected from the exploitation of market power

¹¹ According to the data we gathered in the BCMR 2016, outside of the CLA BT has just over 157,000 CISBO circuits. We estimate that just over 150,000 of BT's CISBO circuits are in areas subject to regulation as a result of this statement (i.e. the LP, the RoUK (excluding the Five CBDs) and the CBDs of Bristol and Manchester). Fewer than 3,000 of these are VHB CISBO circuits (defined in paragraph 2.9(b) below). While there is a trend of rising bandwidth usage, we still expect Lower Bandwidth CISBO to account for the vast majority of CISBO circuits.

¹² 2016 BCMR Statement, Volume 1, paragraph 7.9.

during that time). However the impact of this may distort competition and harm end users. For example, delaying network upgrades in anticipation of future re-regulation means that in the interim a CP offers a lower quality service to its customers.

c) BT's existing leased line customers may be adversely affected insofar as BT has the scope to vary the price they pay (e.g. because their contract comes to an end) or because they are affected by poor standards for the repair of wholesale services.

d) BT could swiftly begin favouring its own downstream businesses.

1.26 In general, any period of non-regulation would risk creating significant uncertainty in the market, including around the price and terms on which wholesale CISBO services are made available. This could affect the timing of CPs' investment decisions and/or the prices and supply choices available to retail customers. The period since the announcement of the Tribunal's decision in July has already meant that these markets have undergone a period of uncertainty as to the future course of regulation. This is particularly the case as obligations such as the charge control and the quality of service measures are based on an annual compliance period. There is no case for this period of uncertainty to be prolonged any further.

1.27 For all these reasons, Ofcom considers that there is an urgent need to act in order to safeguard competition and protect the interests of consumers.

1.28 Given that Ofcom has statutory powers to impose temporary measures, and taking into account the scope of the services affected by the regulatory lacuna, the period for which it is expected to persist, and the nature of the risks for competition and consumers, we do not consider it would be appropriate to address the concerns through seeking to negotiate voluntary commitments from BT¹³.

Exceptional circumstances

1.29 BT's appeal was targeted at a specific narrow set of the propositions underlying Ofcom's market definitions. No party argued in the course of the appeal that Lower Bandwidth CISBO services should be unregulated everywhere. However, because the Tribunal has found that Ofcom erred in relation to the final conclusions it reached on the scope of the product and geographic markets, those definitions can no longer apply, undermining the basis for all of the regulation that was imposed. Unlike in other appeals it is not open to Ofcom to adjust an element of the market analysis, or specific aspects of the remedies. The Tribunal's order therefore requires Ofcom to remove all regulation in the CISBO market, and remits the matters to Ofcom for reconsideration. The result is that although it was accepted that Lower Bandwidth CISBO services should be regulated in most of the country, that regulation will no longer be in place.

1.30 The remedies Ofcom is imposing in this statement in large part reflect the remedies which were imposed in the 2016 BCMR Statement, which were subject to a full domestic and EU

¹³ For the avoidance of doubt, we have not received an offer of a voluntary arrangement from BT.

consultation as part of the BCMR 2016 process. It follows that interested parties have already had an opportunity to comment on the remedies, and Ofcom has had an opportunity to consider the comments.

1.31 In addition, we note that:

- a) The EC has identified the market for “*Wholesale high-quality access provided at a fixed location*”, which includes CISBO services, as Market 4 in its list of markets susceptible to ex ante regulation.¹⁴ Inclusion in this list indicates that the market may be characterised by high and non-transitory barriers to entry, the market structure may not tend towards effective competition within the relevant time horizon, and competition law alone may be insufficient to adequately address the identified market failures;
- b) BT was found to have SMP in the Lower Bandwidth CISBO market, then called the AISBO market, in all parts of the UK except the Hull Area, in all previous BCMRs.¹⁵ The only change to the SMP findings for these products in the 2016 BCMR Statement was the finding that no CP had SMP in the CLA.

1.32 For these reasons, Ofcom considers that there are exceptional circumstances meriting the imposition of temporary measures without consultation.

Possible alternative approaches

1.33 We have carefully considered possible alternative approaches including shortening the minimum consultation period required by statute and seeking to get voluntary commitments from BT.

1.34 Ofcom has the power, where it is satisfied that there are exceptional circumstances justifying the use of a period shorter than the minimum consultation period of one month, to consult for a shorter period.¹⁶

1.35 In light of the complexities of the issues, Ofcom considers it to be extremely unlikely that, with a shorter consultation period, interested parties would be able to engage with Ofcom’s analysis, consider their position and make helpful submissions to Ofcom. Ofcom would also need sufficient time to enable it to consider carefully those consultation responses, and then would be required to conduct an EU consultation of one month. This would cause significant further delay.

¹⁴ Commission Recommendation of 9.10.2014 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services C(2014) 7174.

¹⁵ The first review of business connectivity markets under the new EC Framework was carried out in 2003/4, although it was then called the “*Review of the retail leased lines, symmetric broadband origination and wholesale trunk segments markets*” https://www.ofcom.org.uk/data/assets/pdf_file/0022/37444/state_note.pdf. Subsequent reviews were carried out in 2007/8 (the first to be called the “*Business Connectivity Market Review*”), https://www.ofcom.org.uk/data/assets/pdf_file/0019/33823/bcmr08.pdf, and 2012/13, <https://www.ofcom.org.uk/consultations-and-statements/category-2/business-connectivity-mr>.

¹⁶ sections 48A(5), 49A(5) and 80A(7) of the Communications Act 2003

- 1.36 Given the urgency and exceptional circumstances, and the ongoing market uncertainty, Ofcom did not consider it would be appropriate to delay putting remedies in place in order to conduct a very short consultation that would likely be unsatisfactory for all parties.
- 1.37 Ofcom's consultation on dark fibre which accompanies this statement also includes a consultation on whether to amend the market definition and SMP findings adopted in this document, such that parties will in fact have an opportunity to comment on our market definitions and significant market power determinations in a way that will not entail a regulatory lacuna.
- 1.38 Further, taking into account the scope of the services affected by any regulatory lacuna, the period for which it would likely persist and the nature of risks for competition and consumers, Ofcom does not consider it appropriate to address the concerns through a voluntary arrangement with BT.

Impact Assessment and Equality Impact Assessment

- 1.39 Impact assessments provide a valuable way of assessing different options for regulation and showing why the preferred option was chosen. They form part of best practice policy-making. This is reflected in section 7 of the Act, which means that generally we have to carry out impact assessments where our proposals would be likely to have a significant effect on businesses or the general public, or when there is a major change in Ofcom's activities. However, as a matter of policy Ofcom is committed to carrying out impact assessments in relation to the great majority of our policy decisions.¹⁷
- 1.40 Our normal approach is to set out our assessment of the impact of our proposals in consultation documents and then take into consideration relevant responses in reaching our conclusions on the impact of the changes. As explained above, the measures adopted in this statement have not been subject to consultation because we consider that there is an urgent need to act in order to safeguard competition and protect the interests of consumers. However, as noted above, the remedies we are imposing in this statement in large part reflect remedies which were imposed in the 2016 BCMR Statement, which were subject to a full domestic and EU consultation as part of the BCMR 2016 process. In reaching our view on the impact of the changes made in this statement, we have carefully considered the relevant responses received as part of the BCMR 2016 consultation process. We consider that the impact of the measures adopted in this statement is positive and proportionate to the competition problems we have identified.
- 1.41 Ofcom is separately required by statute to assess the potential impact of all our functions, policies, projects and practices on race, disability and gender equality. Equality Impact Assessments (EIAs) also assist us in making sure that we are meeting our principal duty of furthering the interests of citizens and consumers regardless of their background or identity. We do not consider that the measures adopted in this statement are likely to have

¹⁷ For further information about our approach to impact assessments, see the guidelines, Better policy-making: Ofcom's approach to impact assessment, which are on our website:
https://www.ofcom.org.uk/__data/assets/pdf_file/0029/45596/condoc.pdf

any particular impact on race, disability and gender equality. Specifically, we do not consider that the impact of any outcome will be to the detriment of any group of society.

- 1.42 We have not carried out separate EIAs in relation to race or gender equality or equality schemes under the Northern Ireland and Disability Equality Schemes. This is because we anticipate that our regulatory intervention will affect all industry stakeholders equally and will not have a differential impact in relation to people of different gender or ethnicity, on consumers in Northern Ireland or on disabled consumers compared to consumers in general. Similarly, we are not envisaging making a distinction between consumers in different parts of the UK or between consumers on low incomes. Again, we believe that our intervention will not have a particular effect on one group of consumers over another.

Next steps

- 1.43 Ofcom has today published a consultation on whether it would be appropriate to add a temporary dark fibre remedy to the package of temporary remedies imposed under this statement, and includes a consultation on the market definition and SMP findings adopted in this statement.¹⁸ That process will run in parallel with Ofcom's work to address the remitted matters.

¹⁸ Ofcom, *Dark Fibre Consultation, Consultation on adding dark fibre to the remedies for business connectivity markets*, 21 November 2017, (the 2017 Dark Fibre Consultation), https://www.ofcom.org.uk/_data/assets/pdf_file/0014/108032/Dark-Fibre-Consultation.pdf

2. Market assessment

Introduction

- 2.1 This section sets out our market definition and SMP decisions for CISBO services in the UK (excluding the Hull Area¹⁹).
- 2.2 For the purposes of our temporary SMP conditions and directions:
- a) we identify a Lower Bandwidth CISBO product market;
 - b) we identify as geographic markets (1) the CLA; (2) the LP; (3) each of the CBDs in Birmingham, Bristol, Glasgow, Leeds and Manchester (the Five CBDs); and (4) the RoUK excluding the Five CBDs.
- 2.3 We decide that, for the purposes of our temporary SMP conditions and directions, of the markets identified, BT has SMP:
- a) in a market comprising Lower Bandwidth CISBO services in the LP;
 - b) in markets comprising Lower Bandwidth CISBO services in the CBDs of Bristol and Manchester; and
 - c) in a market comprising Lower Bandwidth CISBO services in the RoUK excluding the Five CBDs.
- 2.4 We also decide that, for the purposes of our temporary SMP conditions and directions, the CI Core consists of links between any of: (a) the 107 exchanges specified in this statement; (b) the 56 TANs that we identified in the 2013 BCMR Statement (excluding links between exchanges within the same TAN); and (c) the 64 data centres identified in the 2016 BCMR Statement.²⁰

Our approach to market analysis for the purpose of this statement

- 2.5 In light of the exceptional circumstances and urgency explained in section 1, we consider it is appropriate and proportionate to make temporary market definitions and SMP determinations based on the evidence available to us (including the analysis conducted for the BCMR 2016), identifying services where, taking a conservative approach, we find BT has SMP on a forward-looking basis until March 2019. As explained in section 1, we are prioritising our work on the remitted matters, as soon as it is completed we will remove the temporary measures contained in this document, which may therefore occur before March 2019.

¹⁹ In the 2016 BCMR Statement, we also identified the Hull Area as a distinct geographic market (2016 BCMR Statement, Volume 1, paragraph 1.22). It is thus not included in our definition of the RoUK. Since we have not revoked our market power findings and regulatory conditions in the Hull Area, we are not revisiting our analysis in relation to Hull in this document.

²⁰ 2016 BCMR Statement, Volume 1, paragraph 1.25.

- 2.6 In defining markets for this purpose, we are mindful that market definition is not an end in itself, but is a tool to enable the assessment of market power.²¹ For this reason, we have approached the exercise of defining markets with a view to identifying services where we can find that BT has SMP on the basis of the evidence and analysis available to us now.
- 2.7 In order to do this, we have considered: (a) the evidence and analysis conducted for the BCMR 2016; (b) the findings reached by the Tribunal; and (c) additional evidence that is currently available to us.
- 2.8 Given the urgent nature of our decisions, and the fact that we are taking them without consultation, we have taken what is overall a conservative approach to determining where there is SMP. As a result, the absence of an SMP determination in this statement in respect of specific services, areas or exchanges should not be taken as a conclusion that those services, areas or exchanges are competitive.

Market definition decisions

Our product market definition

- 2.9 In the 2016 BCMR Statement, Ofcom defined a single product market comprising all CISBO services, looking forward over the period to March 2019. In particular:
- a) Ofcom concluded that Lower Bandwidth CISBO services, including EFM, are linked by a chain of substitution.²² Our view that Lower Bandwidth CISBO services all lie in the same market was largely uncontroversial.²³
 - b) Ofcom concluded that VHB CISBO services (comprising wholesale leased line services above 1Gbit/s using CI technology and WDM services of all bandwidths) were linked by a chain of substitution. This position was also largely uncontroversial.²⁴

²¹ See for example paragraph 2 of the European Commission *Notice on the Definition of the Relevant Market for the Purposes of Community Competition Law*. It is also notable that in some circumstances competition authorities will not consider it necessary to conclude on the boundaries of a market at all: see for example paragraph 5.2.4 of the Competition Commission and Office of Fair Trading *Merger Assessment Guidelines*.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/284449/OFT1254.pdf

²² 2016 BCMR Statement, Volume 1, paragraphs 4.129 - 4.133, 4.262 - 4.266 and Annex 6. We also considered that neither asymmetric broadband nor dark fibre sold to end consumers lie in the same market as Lower Bandwidth CISBO (2016 BCMR Statement, Volume 1, paragraphs 4.259 - 4.261, 4.277 - 4.309 and Annex 6). The volume of dark fibre sold to end users is anyway insignificant in relation to the volume of Lower Bandwidth CISBO services (2016 BCMR Statement, Volume 1, Table 4.3 and paragraph 4.301). As in the 2013 BCMR Statement, in the 2016 BCMR Statement we did not define separate markets for LLU backhaul and MNO backhaul (2016 BCMR Statement, paragraphs 4.610 - 4.615 and Annexes 7 - 8). This was not challenged on appeal and we have not revisited this approach for this statement.

²³ In paragraph 5.2 of its response to the May 2015 BCMR Consultation, BT said: *"Applying the correct approach to market definition ... we strongly believe that, if Ofcom corrects the flaws in its analysis, it will be found that there is a clear break in the chain above 1Gbit/s services, creating two distinct product markets for Ethernet products up to and including 1Gbit/s and Ethernet products above 1Gbit/s and products using WDM technology in customer premises at any bandwidth – i.e. in line with the AISBO and MISBO product markets identified in the 2013 BCMR."* See also [115] of the Tribunal's Judgment: *"At least for the purposes of this appeal, BT did not dispute that a chain of substitution existed for bandwidths up to and including 1G; or that a chain of substitution existed for bandwidths above 10G. BT indicated that it took this stance ... since the outcome of an SMP assessment at those lower bandwidths would be the same whether or not they were considered a single market."*

²⁴ 2016 BCMR Statement, Volume 1, paragraphs 4.33 and 4.147 – 4.148.

- c) Ofcom concluded that there was no break in the chain of substitution between Lower Bandwidth CISBO and VHB CISBO services. This decision was the subject of detailed consideration in the 2016 BCMR Statement and was the subject of BT's appeal of Ofcom's product market definition.
- 2.10 The Tribunal found that Ofcom erred in relation to its conclusion that there was no break in the chain of substitution between Lower Bandwidth CISBO and VHB CISBO services, and remitted the product market definition to us on that basis. We have considered the Tribunal's findings very carefully in identifying markets for this statement.
- 2.11 For the purposes of this statement we define a product market consisting of all Lower Bandwidth CISBO services (including EFM) for the period to March 2019. This is consistent with our findings in the 2016 BCMR Statement which were based on a forward-looking assessment of the period to March 2019, were the subject of consultation and were not challenged on appeal.
- a) It is possible that a fuller assessment might conclude that the relevant market is wider. However, in those geographic markets where we find BT to have SMP in Lower Bandwidth CISBO services, we consider that this finding would also hold if the relevant product market extended to all CISBO services (see paragraphs 2.52, 2.74, 2.94 below). Therefore, given that the purpose of our market definition is as a means to identify the services where BT has SMP, and given the urgent nature of this temporary decision, we consider that it is reasonable and pragmatic for present purposes to define a market for Lower Bandwidth CISBO services only.
- b) We recognise the Tribunal's concern that, for differentiated products such as these, shares of supply for Lower Bandwidth CISBO as a whole may not reflect the strength of competition at particular bandwidths.²⁵ In our SMP assessment below we present shares for the different permutations of bandwidths that make up Lower Bandwidth CISBO (which we refer to as CISBO Low, CISBO Medium and CISBO High).²⁶ In those areas where we find BT to have SMP in Lower Bandwidth CISBO services, we consider that this finding would also hold if SMP were assessed in the standard way in each of these bandwidths separately.
- 2.12 We have considered whether, if there were a separately defined VHB CISBO market, we would be in a position to conclude in this statement that BT has SMP in that market. We have decided that we would not be able to reach a conclusion on this based on the evidence currently available to us (see paragraph 2.98 below). Therefore, we do not in this statement define a market for VHB CISBO services or impose temporary conditions in relation to them.

²⁵ The Tribunal observed that when assessing SMP it is only appropriate to rely on BT's shares of "non-neighbouring" products elsewhere in the chain of substitution if they do in fact provide a meaningful constraint (at 333). We understand this discussion to be *obiter*.

²⁶ CISBO Low refers to services with speeds of ≤ 30 Mbit/s and includes EFM services. CISBO Medium refers to services with speeds > 30 Mbit/s and ≤ 100 Mbit/s. CISBO High refers to services with speeds > 100 Mbit/s and ≤ 1 Gbit/s. WDM services (which do not form part of Lower Bandwidth CISBO) are excluded from all these categories.

2.13 Further analysis will be required to consider, as part of the remitted matters, whether it would be appropriate to define a single product market for all CISBO services or multiple markets covering fewer services. In carrying out this analysis we will take into account the aspects of the Tribunal's judgment relevant to this question.²⁷ This full assessment will take time, given the need to gather further evidence and conduct further analysis to determine the best approach to assessing these products.

Our geographic market definitions

2.14 In the 2016 BCMR Statement, Ofcom defined three geographic markets in the UK (excluding the Hull Area): the CLA, the LP and the RoUK.²⁸ In particular:

- a) Ofcom carried out in depth analysis to identify the CLA, the LP, the Five CBDs and the RoUK as candidate areas that potentially represent distinct geographic markets. This includes identifying the boundaries of each of these areas.
- b) Ofcom assessed the extent to which competitive conditions were sufficiently homogeneous between these candidate areas. In the light of this exercise, Ofcom concluded that the Five CBDs were not distinct geographic markets from the RoUK but that the CLA and LP were both distinct.

2.15 The Tribunal found that Ofcom erred in defining the RoUK as a single geographic market including the Five CBDs. In particular, the Tribunal considered that the metrics Ofcom relied upon did not support the conclusion that competitive conditions are sufficiently homogeneous to justify the inclusion of the Five CBDs in the same geographic market as the RoUK.²⁹

2.16 For the purposes of our temporary market assessment, we have considered the content of the 2016 BCMR Statement in the light of the Tribunal's judgment. As a result, we have defined the following geographic markets: (a) the CLA; (b) the LP; (c) each of the Five CBDs; and (d) the RoUK excluding the Five CBDs.³⁰ As explained below in the context of our SMP assessment, competitive indicators such as shares of supply are not identical in each CBD. To avoid the risk of amalgamating areas where competitive conditions are dissimilar, we look at each CBD separately.

2.17 These definitions reflect the Tribunal's findings. It did not find that we had erred in defining the CLA and the LP as geographic markets. It did find that we had erred in including the Five CBDs within the RoUK.

²⁷ Including the discussion of chains of substitution at paragraphs 320-348 of the judgment.

²⁸ 2016 BCMR Statement, Volume 1, paragraph 1.22.

²⁹ Paragraphs 368-375, 387-388 and 472 of the judgment.

³⁰ Figures A10.48 – A10.52 of the 2016 BCMR Statement show each of the CBDs. The temporary conditions set out a list of the postcode sectors comprising each CBD.

- 2.18 The Tribunal also made a number of other observations in relation to geographic market definition. Further analysis will be required to carefully consider these observations as we address the remitted matters. In particular:
- a) The Tribunal posed the “*separate question*” of why those parts of the Five CBDs passing the Boundary Test (meaning a considerable amount of competing infrastructure is present) were not deregulated in the same way as the CLA.³¹ Each ‘inner CBD’ that passes the Boundary Test consists of a small number of postcode sectors.³² The reasons why Ofcom did not consider it appropriate to find small areas as distinct markets were explained in the 2016 BCMR Statement, principally in Annex 16.³³ The Tribunal did not make a finding in relation to these reasons and they were not the subject of argument before the Tribunal. Accordingly, we do not consider it appropriate to define the ‘inner CBDs’ as separate markets for the purpose of this statement. We will consider this issue further as we address the remitted matters.
 - b) The Tribunal also expressed concern about the exclusion of EFM from Ofcom’s infrastructure presence metrics in considering the approach to geographic market definition and in the context of the appeal on the treatment of the CBDs.³⁴ In this decision we are defining separate geographic markets for each of the CBDs. We also take EFM into account in the SMP assessment in this statement, for example in the shares of supply (EFM forms part of CISBO Low). We note that the Tribunal did not make a more general finding that the candidate areas that Ofcom identified were inappropriate as a result of the treatment of EFM. Again, we will consider the treatment of EFM further as we address the remitted matters.³⁵

Market definition conclusions

- 2.19 For the purpose of our temporary SMP conditions and directions:
- a) we identify a Lower Bandwidth CISBO product market;
 - b) we identify as geographic markets (1) the CLA; (2) the LP; (3) each of the CBDs in Birmingham, Bristol, Glasgow, Leeds and Manchester; and (4) the RoUK excluding the Five CBDs.

³¹ Tribunal’s judgment at 376 and 430-431.

³² Between three and five postcode sectors in each CBD pass the Boundary Test. The exception is the Manchester CBD where eleven pass (2016 BCMR Statement, Table A10.59). This represents between 12% and 22% of the sectors in the CBDs.

³³ In particular, paragraphs A16.15 – A16.19 and footnotes.

³⁴ Tribunal’s judgment at 387 and 472(4).

³⁵ In any event, the Tribunal observed at paragraph 399 of the judgment that the main criteria of our infrastructure presence tests would likely have to be adjusted if product markets were defined differently. As discussed above, the appropriate product market definition(s) is one of the matters that we will consider further.

SMP assessment

Evidence used for our SMP assessment

- 2.20 For the purpose of this statement, we take as our starting point the evidence gathered and analysis conducted for the BCMR 2016, noting that this was conducted on a forward-looking basis to cover the period until March 2019.³⁶ In this section we seek to identify those markets in which we can be sure that BT has SMP for the period to March 2019.
- 2.21 We have also taken account of new evidence and considered the potential for some changes in market circumstances since our 2016 decision. In general, we think that there are unlikely to have been material changes in market circumstances that would affect our analysis.
- 2.22 In relation to structural indicators of SMP, such as entry barriers and economies of scale and scope, these factors will change only very slowly over time, if at all, in the absence of major technological change.
- 2.23 In relation to our measures of infrastructure presence:
- a) Our BCMR 2016 analysis took into account operators' expansion plans. Network reach is likely to change materially only if there is significant investment in new infrastructure by BT's competitors.³⁷ This is in line with the historical position: we found that little additional investment in network expansion (actual or planned) had taken place since the 2013 BCMR Statement.³⁸
 - b) Since the 2016 BCMR Statement, CityFibre has expanded its presence further and saw year-on-year growth of around 20% between 2016 and 2017 in the number of connected sites. However, this growth is from a relatively low base. As of June 2017, it had connected around 8,000 business and public sector sites, many of which could be using CISBO circuits.³⁹ To put this number into context, this is around 2.5% of the base of CISBO circuits we considered in the 2016 BCMR Statement (and which already included some CityFibre circuits). Given the relatively low number of circuits and the fact that CityFibre's geographic presence is spread quite widely across 42 cities, we do not think our analysis will be materially affected. CityFibre has also recently announced a deal with Vodafone to reach one million homes in 12 UK towns with fibre to the premises. This network build could be leveraged to supply businesses and public sector

³⁶ 2016 BCMR Statement, Volume 1, paragraph 4.479. We have also taken into account the Tribunal's findings.

³⁷ Our analysis of these plans is set out in the 2016 BCMR Statement, Annex 9 (paragraphs A9.110 – A9.127) and Annex 10 (paragraphs A10.166 – A10.168 and A10.175 – A10.179). Only two CPs, Virgin Media and CityFibre, told us that they had plans for material expansion of their networks. We took account of these CPs' investment plans for the review period in the BCMR 2016. We considered the impact that this network expansion would have on operator presence and found that it would not change competition materially. BT will retain the only ubiquitous UK network capable of supplying leased lines (at the wholesale level) nationwide.

³⁸ 2016 BCMR Statement, Volume 1, paragraph 7.99.

³⁹ 2017 Half Year Results, CityFibre, 28 September 2017. Available at: <https://cityfibre-electricstudiolt.netdna-ssl.com/wp-content/uploads/2017/09/CITY-2017-Interim-results-FINAL-1.pdf>

sites.⁴⁰ However, this work is only due to start in the first half of 2018 and is expected to be largely complete in 2021. It is thus unlikely to have a material impact within the timeframe of this statement.

- c) Virgin Media's latest publicly available statements suggest that between September 2016 and 2017 it expanded its network to pass an additional 0.71m homes.⁴¹ This is higher than the build figures we considered in the 2016 BCMR Statement. However, its focus is on roll-out to residential properties and the plans Virgin Media shared with us suggested that the majority is in the RoUK where, other than Virgin Media, OCP presence is generally very limited. As a result, this deployment is unlikely to materially increase the extent to which CISBO users have a choice between more than two competing networks.

- 2.24 Our data on shares of supply relates to 2014. While we relied on this information in the 2016 BCMR Statement to make SMP findings for the period to March 2019, clearly the precise figures could have changed since it was collected.⁴² As explained in paragraph 2.25 below, we have adopted a more conservative approach for finding SMP in this statement, in part to take into account the limitations to our historic service share data.

Ofcom's approach to assessing SMP for the purposes of this statement

- 2.25 We are conscious that we are making a temporary SMP assessment on an urgent basis and in exceptional circumstances, and without consultation. We consider that it is therefore appropriate for us to take a more conservative approach to finding SMP. In particular, this is reflected in our interpretation of service shares, as explained in paragraph 2.29 below.
- 2.26 We find SMP only where we can do so based on the evidence we already hold, and without substantial further analysis. Our conclusions are therefore specific to the particular circumstances of these temporary measures. This is particularly the case in relation to those CBDs where (as explained below) we do not find BT to have SMP. We will revisit the appropriate treatment of CISBO services throughout the UK as part of our consideration of the remitted matters.

General factors relevant to SMP assessment

Overview

- 2.27 Our SMP assessment is conducted according to the relevant criteria listed in the European Commission's SMP Guidelines (the Guidelines).⁴³ In the 2016 BCMR Statement, we

⁴⁰ Press release of 9 November 2017. Available at: <https://www.cityfibre.com/news/vodafone-cityfibre-bring-gigabit-speed-fibre-uk/>

⁴¹ Third Quarter 2017 Fixed Income Release, Liberty Global. Available at: <http://www.libertyglobal.com/pdf/fixed-income/virgin-media-Fixed-Income-Release-Q3-2017-FINAL.pdf>

⁴² Indeed in the 2016 BCMR Statement we recognised that BT's share of VHB CISBO could increase as a result of migration from Lower Bandwidth CISBO. 2016 BCMR Statement, paragraphs A5.39-A5.41, A5.60-A5.61.

⁴³ *Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services*, 2002/C 165/03.

identified the following criteria as particularly relevant to assessment of SMP in wholesale leased line markets:

- a) market shares, market share trends and market concentration;
- b) control of infrastructure not being easily duplicated;
- c) economies of scale and scope;
- d) barriers to entry and expansion;
- e) external constraints (this additional criterion is not in the Guidelines);
- f) countervailing buyer power (CBP);
- g) profitability; and
- h) prospects for competition.⁴⁴

2.28 Below, we evaluate the markets we have defined based on a cumulative assessment of these criteria and taking evidence in the round. A general explanation of the relevance of these criteria is set out in Annex 9 of the 2016 BCMR Statement and we do not repeat it here. However, we summarise briefly below some specific additional points on how we have analysed shares of supply and infrastructure presence.

Further details on our approach to analysing shares of supply

2.29 One of the factors we take into account in our SMP assessment is BT's market share. Under the standard approach to competition assessment, dominance or SMP concerns normally arise where there is a market share of 40% or above.⁴⁵ However, the share of supply data in the 2016 BCMR Statement relates to 2014. In this case, we therefore consider that a conservative approach means paying particularly close attention to markets where BT's market share is below 50% (above this level there is ordinarily a presumption of dominance save in exceptional circumstances).⁴⁶

2.30 We have also looked at how BT's share of supply varies across the range of Lower Bandwidth CISBO services. In its comments on chains of substitution, the Tribunal suggested that Ofcom should assess whether BT has SMP at any particular bandwidth. To do this, Ofcom would need to examine each product individually. It also suggested that it is appropriate to rely on BT's shares in non-neighbouring bandwidths only if they do impose a meaningful constraint.⁴⁷ Accordingly, as well as looking at shares of Lower Bandwidth CISBO in aggregate, we have also looked at shares of CISBO Low, CISBO Medium and CISBO High. Further, to the extent that neighbouring bandwidths are likely to be the closest substitute:

⁴⁴ 2016 BCMR Statement, paragraph A9.5.

⁴⁵ The Guidelines, paragraph 75.

⁴⁶ The Guidelines, paragraph 75.

⁴⁷ See paragraphs 332-333 of the judgment.

- a) To understand the constraints on CISBO Low, we have looked at combined shares of CISBO Low and CISBO Medium.
 - b) To understand the constraints on CISBO Medium, we have looked at combined shares of CISBO Low, CISBO Medium and CISBO High (i.e. Lower Bandwidth CISBO as a whole).
 - c) To understand the constraints on CISBO High, we have looked at combined shares of CISBO Medium and CISBO High.
- 2.31 The shares of supply presented below are shares of volumes (specifically the number of circuit ends at customers' premises), rather than revenues. We have revised the market shares to take account of [X].
- 2.32 As well as BT's market share, which plays a significant role in our SMP assessment, we have also considered the following factors.
- a) It is not only the share of the leading firm in a market which is relevant. Markets which are dominated by two large firms, in particular, are unlikely to be effectively competitive. Accordingly, we have considered whether BT and Virgin Media (the two largest leased line suppliers) have a high combined share of supply.⁴⁸
 - b) The shares we observe are affected by regulation, which prevents BT from exploiting its SMP (for example, obligations to supply on equivalent terms, to adhere to published prices and not to discriminate unduly). However, for the purposes of the SMP assessment, we must imagine the market as it would be in the absence of SMP regulation.⁴⁹ It is highly likely that BT would have a higher share of the market in the absence of regulation.

Further details on our approach to analysing infrastructure presence

- 2.33 Given the importance of infrastructure presence to the strength of competition in leased line services, our SMP assessment considers various indicators of network reach. In interpreting these:
- a) Our view is that, for a geographic market to be effectively competitive, it is necessary for most if not all customers in it to have a good choice of suppliers. One reason is that, in an unregulated market, there would be scope for a CP with SMP to exploit pockets of market power through bespoke pricing.

⁴⁸ The extent to which a market is concentrated in the hands of a small number of firms each with a large market share can be captured by the Herfindahl–Hirschman Index of market concentration (HHI), which is equal to the sum of squared market shares. An HHI of 2500 (equivalent to four equally-sized firms) or more is sometimes used as a benchmark to identify highly concentrated markets in which competition concerns may arise.

⁴⁹ We adopt the “Modified Greenfield” approach when assessing competition in wholesale and retail markets. In wholesale markets we assume that no *ex ante* regulation arising from a finding of SMP applies to any CP within the relevant market in question. In retail markets we take the presence of *ex ante* regulation in wholesale markets into account (where relevant). That is, we assume that while no *ex ante* SMP regulation applies to any CP in the retail market in question, CPs have access to regulated wholesale leased line products.

- b) Whilst there may not be general agreement about the minimum number of potential suppliers that are needed for effective competition, we consider that BT+1 other effective offer is clearly insufficient. However, for a leased line customer to receive even BT+2 competitive offers at a site, it may be necessary for more than two other CPs (OCPs) to have network in the area. Not all nearby CPs will bid and not all CPs can exert a strong constraint on BT (given its lower need to dig and shorter dig distances).⁵⁰
- c) The choice of providers available to a leased line user at any particular site depends on the number of CPs with network sufficiently close to that user's site that could, in the absence of regulation, submit a competitive bid to supply that user. This is because the construction costs associated with connecting a new customer, and hence the price the CP must charge if it is to recover its costs, depend on the distance between the customer site and the point at which the connection to the CP's network is made. Taking into account evidence on construction costs and distances actually dug by CPs making new connections, we concluded in the 2016 BCMR Statement that the number of CPs within 100m of the business sites in an area, on average, was likely to be a good indicator of the competitiveness of that area.⁵¹ Therefore, we focus here on measures of the number of operators within 100m of business premises.

2.34 We take EFM into account in our SMP assessment. We report the number of EFM operators present in each geographic market. Our service shares also include EFM circuits (EFM lies in the CISBO Low segment).⁵² As explained in paragraph 2.18(b) above, we will look at the treatment of EFM in the context of geographic market definition as we address the remitted matters. We note in this context that it is not straightforward to include EFM operators within our existing network reach statistics.⁵³

Lower Bandwidth CISBO in the LP

2.35 We conclude that BT has SMP in the provision of Lower Bandwidth CISBO services in the LP. Below we set out our supporting evidence, taking each indicator of SMP in turn.

⁵⁰ Ofcom's reasoning is set out in detail in 2016 BCMR Statement, Volume 1, paragraphs 4.350 - 4.415.

⁵¹ For any given buffer distance, the greater the average number of CPs within that distance, the more competitive an area is likely to be. However, the longer the distance, the more likely it becomes that measures of the number of OCPs within that distance overstate actual choice for most customers. The choice of 100m as an appropriate "buffer distance" is discussed in the 2016 BCMR Statement, Annex 13, in particular at paragraphs A13.23 – A13.25. Most actual digs are shorter.

⁵² We explained our treatment of EFM operators in 2016 BCMR Statement, Volume 1, paragraphs 4.390 – 4.393 and A9.40 – A9.41

⁵³ This is because in the BCMR 2016, we assessed access to fibre and the presence of EFM operators in different ways. Network reach statistics are calculated using the distance between business locations and CPs' flexibility points. This sheds light on how far CPs would need to extend their network ('dig') in order to install fibre and supply a new customer. In contrast, an EFM operator does not need to install a new connection to a customer. Rather it can lease a copper local loop from BT to connect customer premises to the nearest local serving exchange. We therefore measured whether EFM operators are present at the local exchange.

Market shares – supports SMP

- 2.36 BT's share of Lower Bandwidth CISBO services in the LP is 49%, which is well above the level at which, according to the Guidelines, concerns about dominance usually arise. In addition, the combined BT and Virgin Media share is 75%, indicating that the market is highly concentrated.
- 2.37 Looking at each segment individually and combined with its adjacent segments, we find that BT's market share is consistently above 40% across the range of products. BT's share is particularly high in CISBO Medium. Overall this evidence shows that BT is in a strong position across the entire range of Lower Bandwidth CISBO services Table 2.1 below shows the detail.

Table 2.1 The market shares of BT and of BT and Virgin Media combined in the LP by segment

LP	BT share	Combined BT and Virgin Media share
CISBO Low	44%	71%
CISBO Medium	57%	80%
CISBO High	42%	70%
CISBO Low and CISBO Medium	51%	76%
CISBO Medium and CISBO High	53%	78%
Lower Bandwidth CISBO	49%	75%

Control of infrastructure not being easily duplicated – mixed

- 2.38 BT's ubiquitous infrastructure enables it to supply leased lines to almost any site at low incremental costs. BT benefits from its large number of existing fibre connections and from the relative infrequency and short distances it has to dig compared to other CPs.⁵⁴
- 2.39 We explain above how we have interpreted network reach indicators. The LP is by design made up of postcode sectors which pass the "high network reach test" so it is to be expected that there will be some level of infrastructure-based competition in most parts of this area.
- a) The average number of OCPs with network within 100m of a business site is 2.5. However, within this average, a significant proportion of businesses are likely to have fewer than BT+2 effective competing offers at the site. 32% will have only one or zero OCPs within 100m (see Table 2.2 below). As CPs will not be willing to dig 100m in all cases, the implication is that a significant minority of users in the LP would not be

⁵⁴ 2016 BCMR Statement, paragraph A9.32.

adequately protected by competition between operators with their own fibre-based networks.⁵⁵

- b) As noted above, EFM operators do not need to dig to connect a site as they use existing BT copper local loops, and they are not included in our network reach measures. EFM technology can be used to supply Ethernet leased lines of up to about 30Mbit/s.⁵⁶ Thus for customers requiring the lowest bandwidths, but not those requiring more, EFM exerts an additional constraint, beyond that exerted by nearby fibre networks. There are on average 2.02 EFM operators present at EFM exchanges in the LP.⁵⁷ Within this average there is a degree of variation: at twelve of the 43 exchanges in the LP only 1 or 0 EFM operators are present.

Table 2.2 Depth of rival infrastructure in the LP (100m)

	Number of OCPs within 100m				
	1 or more	2 or more	3 or more	4 or more	5 or more
Proportion of businesses	96%	68%	40%	22%	11%

Source: 2016 BCMR Statement, Volume 1, Table 4.4. Depth of rival infrastructure reflects the proportion of businesses in an area that have one or more, two or more, etc OCPs with network flexibility points within 100m.

- 2.40 Overall, the evidence on infrastructure presence is mixed. A substantial number of users within the LP have several nearby operators (as well as the option of EFM, for those with lower bandwidth needs). However a significant minority are likely to face a more limited choice. In relation to these users, BT is likely to be in a strong position.

Economies of scale and scope – supports SMP

- 2.41 BT is the largest supplier of leased lines and is likely to have a cost advantage over its smaller rivals given the existence of economies of scale and scope. Even Virgin Media, BT's largest rival, has a significantly less extensive network and a considerably smaller customer base. The total number of leased lines supplied by BT is more than four times the number supplied by Virgin Media, and BT supplies twice as many CISBO services.⁵⁸ At the upstream level, BT also benefits from being able to recover some of the common costs of its network from competitors in downstream markets who use BT's LLU and VULA services to supply asymmetric broadband services, together with CISBO services for backhaul.

⁵⁵ 2016 BCMR Statement, Volume 1, Table 4.4, and paragraph 4.566.

⁵⁶ The bandwidth EFM can offer reduces with the distance of a customer's premises from an exchange. So not all customers within an EFM exchange footprint with a requirement somewhat below 30Mbit/s may be able to get the speed they need (see 2016 BCMR Statement, paragraphs A6.44 – A6.49).

⁵⁷ 2016 BCMR Statement, Table A10.15.

⁵⁸ 2016 BCMR Statement, footnote 286 to paragraph A9.78.

Barriers to entry and expansion – supports SMP

- 2.42 Entry barriers are high because a significant part of the costs of supplying wholesale leased lines are likely to be regarded as sunk costs. In addition, there are also some costs of switching supplier that act as an entry barrier that will place entrants with no customer base at a disadvantage to BT, which has a very high share of this market.⁵⁹
- 2.43 The LP benefits from its proximity and economic linkages to the CLA, which has encouraged entry by incremental expansion of networks from the CLA.⁶⁰ However, this effect is already reflected in the network reach and service share figures for the LP.

External constraints – not material

- 2.44 External constraints from services outside the relevant market are by definition relatively weak. The main external constraints potentially relevant to Lower Bandwidth CISBO services are asymmetric broadband and dark fibre sold to end consumers.⁶¹ Taking these in turn:
- a) External constraints from asymmetric broadband services are weak for the reasons set out in Annex 6 of the 2016 BCMR Statement (where we conclude that asymmetric broadband is not part of the same market as leased lines).⁶²
 - b) Dark fibre is in any case quantitatively insignificant in relation to the market for Lower Bandwidth CISBO services in the LP.⁶³

Countervailing buyer power – not material

- 2.45 For CBP to be an effective constraint on a seller's market power, the buyer must purchase a sufficiently large proportion of the seller's output and also have a credible alternative source of supply. CBP in leased lines is limited. Indeed Openreach's largest customer is BT itself (which accounts for between 62% and 68% of Openreach's supply of Lower Bandwidth CISBO services in the UK, depending on the precise bandwidth considered).⁶⁴ In the LP, CBP for some customers will be further limited by the lack of competing infrastructure close to a significant minority of sites. Even if some purchasers were able to

⁵⁹ Evidence from a 2016 survey suggested that the costs of changing supplier can be significant even if they are not always so. 2016 BCMR Statement, paragraphs A9.46 – A9.65.

⁶⁰ 2016 BCMR Statement, Volume 1, paragraph A16.18.

⁶¹ If Lower Bandwidth CISBO is a distinct market, then switching to VHB CISBO services is an additional external constraint. However, as such it would also be a relatively weak constraint. Moreover, the constraint from VHB CISBO would not affect our SMP findings: in the BCMR 2016, where we analysed all CISBO services jointly, we concluded that BT had SMP in the LP.

⁶² In particular, there are significant qualitative differences between asymmetric broadband services and leased lines, suggesting leased line users will not find asymmetric broadband an adequate substitute; increases in download speeds available from asymmetric broadband had not had a discernible impact on demand for leased lines; evidence from our consumer survey and from CPs did not suggest that asymmetric broadband and leased lines were close substitutes; and there are significant barriers to switching between asymmetric broadband and Ethernet leased lines (2016 BCMR Statement, Volume 1, paragraph A6.112).

⁶³ 2016 BCMR Statement, Volume 1, Table 4.3 and paragraph 4.569.

⁶⁴ 2016 BCMR Statement, Volume 1, Table A9.1.

exercise buyer power effectively, this is unlikely to benefit customers without buyer power.⁶⁵

Profitability and pricing – supports SMP

- 2.46 Historically, BT's ROCE for Lower Bandwidth CISBO⁶⁶ in the WECLA, which included the LP together with the CLA, varied between 48% and 70% over the period 2012/13 – 2014/15, well above BT's WACC (9.8%).⁶⁷ BT's use of price discounting on Lower Bandwidth CISBO services in the LP was limited and prices were generally the same as in the RoUK, consistent with competitive conditions also being similar. However, BT had not priced up to the maximum permitted by the safeguard cap on Lower Bandwidth CISBO prices set in the 2013 BCMR Statement.⁶⁸
- 2.47 Prior to the 2016 BCMR Statement, BT appeared to be charging significantly above cost for Lower Bandwidth CISBO services, as shown by the large reductions required under the 2016 LLCC⁶⁹ which, in contrast to the previous control, applied in the LP.
- 2.48 BT's pricing in 2016/17 seemed to be primarily driven by the reductions required under our charge control, rather than competitive pressures.⁷⁰ As a result, BT's ROCE in Lower Bandwidth CISBO in the LP in 2016/17 was around 40%, considerably above its cost of capital (9.8%).⁷¹ So far in 2017/18, BT has made reductions to prices but has not yet made the revenue reductions envisaged when the 2016 LLCC was set (see section 5 below).

Prospects for competition – supports SMP

- 2.49 In the 2016 BCMR Statement, we concluded that material further investment in infrastructure in the LP was unlikely because there had been little recent investment there, despite the application of light-touch remedies in the LP in the 2013 BCMR Statement. No OCP's investment plans were focused on the LP,⁷² though CityFibre included Slough in its rollout plans and some [§<] of Virgin Media's committed build was in the LP.⁷³ We remain of the view that further material competing investment in the LP is unlikely.
- 2.50 As discussed in paragraph 2.23 above, since the 2016 BCMR Statement, both CityFibre and Virgin Media have increased their network coverage. However in the light of the above discussion, we consider that this network expansion is unlikely to have a material impact in the LP within the timeframe of this statement. In particular, the focus of Virgin Media's investment is roll-out to residential properties, primarily in the RoUK.

⁶⁵ 2016 BCMR Statement, paragraphs A9.80 – A9.94.

⁶⁶ Then referred to as AISBO.

⁶⁷ 2016 BCMR Statement, Tables A17.1 and A17.2.

⁶⁸ 2016 BCMR Statement, Volume 1, paragraph 4.581.

⁶⁹ 2016 Leased Lines Charge Control

⁷⁰ Although in 2016/17 BT did reduce average prices by slightly more than was necessary.

⁷¹ Ofcom analysis using 2016/17 revenue and cost data published in BT's 2017 RFS for Total Ethernet Basket services. Revenues and Costs taken from page 58, costs by service and component from pages 60-62, and costs by component from Appendix 1.1, pages 110-111.

⁷² 2016 BCMR Statement, Volume 1, paragraph 7.99.

⁷³ 2016 BCMR Statement, paragraphs A10.166 and A10.178.

Summary

- 2.51 Overall we consider that BT has SMP in the provision of Lower Bandwidth CISBO services in the LP. BT's share of Lower Bandwidth CISBO services is very high (49%). Moreover shares of supply indicate that BT is in a strong position across the entire range of Lower Bandwidth CISBO services. The picture in relation to infrastructure presence (including the presence of EFM operators) is more mixed. However, the share of supply data suggests that, with the partial exception of Virgin Media, other CPs have enjoyed limited success in converting their infrastructure presence into sales. All other material indicators support a finding of SMP.
- 2.52 Our view that BT has SMP in at least Lower Bandwidth CISBO services would not be altered if the relevant market were all CISBO services. In the 2016 BCMR Statement, we found that BT had SMP in all CISBO services in the LP.⁷⁴

Lower Bandwidth CISBO in the RoUK excluding the Five CBDs

- 2.53 We conclude that BT has SMP in the provision of Lower Bandwidth CISBO services in the RoUK excluding the Five CBDs.
- 2.54 The SMP analysis below follows the same structure as for the LP above. Where the analysis is the same as for the LP, this is not repeated in full.

Market shares – supports SMP

- 2.55 BT's share of Lower Bandwidth CISBO services in the RoUK excluding the Five CBDs was 58%. A share in excess of 50% is itself evidence of a dominant position save in exceptional circumstances. In addition, the combined share of BT and Virgin Media is equal to 89%. This indicates that the supply of these services was highly concentrated (the HHI was more than 4200) and largely accounted for by just these two suppliers, a market structure which is unlikely to lead to competitive outcomes.
- 2.56 Looking at each segment individually and combined with its adjacent segments, we find that BT's share is consistently very high. With the exception of CISBO Low, where BT's share is 47%, BT's share is above 50% across the range of products and in the market as a whole. Overall this evidence shows that BT is in a very strong position across the entire range of Lower Bandwidth CISBO services.

⁷⁴ 2016 BCMR Statement, paragraphs 4.562-4.588. Given the evidence presented above, we also consider that in the LP, BT would be found to have SMP for any of the bandwidths within Lower Bandwidth CISBO (if SMP were assessed in the standard way).

Table 2.3 The market shares of BT and of BT and Virgin Media combined in the RoUK excluding the Five CBDs by segment

RoUK	BT share	Combined BT and Virgin Media share
CISBO Low	47%	82%
CISBO Medium	70%	96%
CISBO High	66%	95%
CISBO Low and CISBO Medium	57%	88%
CISBO Medium and CISBO High	69%	95%
Lower Bandwidth CISBO	58%	89%

Control of infrastructure not being easily duplicated – supports SMP

- 2.57 As in the LP, BT's ubiquitous infrastructure enables it to supply leased lines to almost any site in the UK outside the Hull Area at low incremental costs.
- 2.58 Network reach indicators show that there is little competing infrastructure in the RoUK excluding the Five CBDs. For a market to be effectively competitive, we would consider it necessary for most if not all customers to have a good choice of supplier. The absence of competing infrastructure is thus evidence that BT has SMP.
- 2.59 In the RoUK excluding the Five CBDs, the average number of OCPs within 100m of a business site was only 0.7. Only 60 % of business sites had access to one or more OCPs within 100 metres and only 13% had access to two or more.⁷⁵ The closest CP to a business site is on average more than 150m away and the second closest more than 1000m.⁷⁶ These distances are far in excess of the distances typically dug by CPs to connect a new site and also of our estimate of the typical maximum distance which CPs might be prepared to dig in the absence of regulation (100m).⁷⁷ As CPs will not be willing to dig even as far as 100m in all cases, the implication is that the majority of users in the RoUK excluding the Five CBDs would not be adequately protected by competition.
- 2.60 As noted above, EFM operators do not need to dig to connect a site as they use existing BT copper local loops, and they are not included in our network reach measures. However, as with fibre, EFM competition is limited in the RoUK. There are on average only 0.70 EFM operators present at exchanges in the RoUK (including the Five CBDs where the average is

⁷⁵ 2016 BCMR Statement, Volume 1, Table 4.4. As noted above, these figures do not include EFM operators.

⁷⁶ Note that the figures in Table A10.40 in the 2016 BCMR Statement are for the RoUK including the Five CBDs.

⁷⁷ As explained in the 2016 BCMR Statement, paragraphs A13.23 – A13.24.

1.70).⁷⁸ Indeed, at the great majority of the exchanges in the RoUK, only 1 or 0 EFM operators were present.⁷⁹ As explained in paragraph 2.39 above, EFM technology can be used to supply Ethernet leased lines of up to about 30Mbit/s. Even for customers requiring the lowest bandwidths, the combined strength of fibre-based and EFM-based infrastructure competition is weak in the RoUK excluding the Five CBDs. For those requiring higher bandwidths, EFM is unlikely to be an attractive option.

Economies of scale and scope – supports SMP

2.61 Same analysis as in relation to the LP.

Barriers to entry and expansion – supports SMP

2.62 Same analysis as at paragraph 2.42 above in relation to the LP.

External constraints – not material

2.63 Same analysis as in relation to the LP.⁸⁰

Countervailing buyer power – supports SMP

2.64 As explained in relation to the LP, CBP in leased lines is limited. This applies with even greater force in the RoUK excluding the Five CBDs, where CBP is further limited by the lack of competing infrastructure.⁸¹

Profitability and pricing – supports SMP

2.65 There are no separate profitability figures for the RoUK excluding the Five CBDs.

2.66 Nevertheless, BT publishes profitability data for Lower Bandwidth CISBO outside the WECLA, which is equivalent to the RoUK including the Five CBDs. As the majority of these circuits are located outside the Five CBDs⁸², high-levels of profitability outside the WECLA would be indicative of high profitability in the RoUK excluding the Five CBDs.

2.67 Historically, BT's ROCE for Lower Bandwidth CISBO⁸³ outside the WECLA was 22% in 2014/15, down from a peak of 30% in 2012/13 but still well above BT's WACC (9.8%).⁸⁴ BT's high ROCE, despite being subject to a charge control intended to align charges with costs, is consistent with SMP.⁸⁵

⁷⁸ 2016 BCMR Statement, Table A10.15. If exchanges where no EFM operators are present are excluded from the base, the average number of OCPs in relevant RoUK exchanges increases from 0.7 to 1.3. This small change does not affect our conclusions.

⁷⁹ 2016 BCMR Statement, Table A10.16.

⁸⁰ 2016 BCMR Statement, Volume 1, Table 4.3 and paragraph 4.301.

⁸¹ 2016 BCMR Statement, paragraphs A9.80 – A9.94.

⁸² To illustrate, Table 4.4 of the 2016 BCMR Statement indicates that around 95% of BT's Lower Bandwidth CISBO circuits in the RoUK (including the Five CBDs) were outside the Five CBDs.

⁸³ Then known as AISBO.

⁸⁴ 2016 BCMR Statement, Tables A17.1 and A17.2.

⁸⁵ 2016 BCMR Statement, paragraph A9.107.

- 2.68 Prior to the 2016 BCMR Statement, BT appeared to be charging significantly above cost for AISBO services, as shown by the large reductions required under the 2016 LLCC. The main constraint on its pricing appeared to be our previous charge control, rather than a competitive constraint exerted by other operators.
- 2.69 Similarly, BT's pricing in 2016/17 seemed to be primarily driven by the reductions required under our charge control.⁸⁶ As a result, BT's ROCE in Lower Bandwidth CISBO in the RoUK in 2016/17 was around 15%, which is above its cost of capital (9.8%).⁸⁷ So far in 2017/18, BT has made reductions to prices but has not yet made the revenue reductions envisaged when the LLCC 2016 was set (see section 5 below).

Prospects for competition – supports SMP

- 2.70 Prospects for competition in the supply of Lower Bandwidth services in the RoUK excluding the Five CBDs are limited by the low density of businesses in the area and this is reflected in the lack of existing infrastructure.
- 2.71 Only two CPs (Virgin Media and CityFibre) had plans for material expansion in the market review period. Whilst many of the "second-tier" towns and cities in which CityFibre plans to roll out are in the RoUK outside the CBDs, as is [redacted] of Virgin Media's planned rollout, even if realised there is unlikely to be any significant challenge to BT's dominance as a result of these plans.⁸⁸
- 2.72 As discussed in paragraph 2.23 above, since the 2016 BCMR Statement, both CityFibre and Virgin Media have increased their network coverage. However, in the light of the above discussion, we consider that this network expansion is unlikely to have a material impact within the timeframe of this statement.

Summary

- 2.73 All material indicators support an SMP finding in the market for Lower Bandwidth CISBO services in the RoUK excluding the Five CBDs.
- 2.74 Moreover our view that BT has SMP in at least Lower Bandwidth CISBO services would not be altered if the relevant market were all CISBO services. In the 2016 BCMR Statement, we found that BT had SMP in all CISBO services in the RoUK including the Five CBDs.⁸⁹ Had the Five CBDs been excluded from the assessment in the 2016 BCMR Statement, it would not have affected our conclusions, particularly as the Five CBDs are areas in which competition is stronger than in other parts of the RoUK.⁹⁰

⁸⁶ Although in 2016/17 BT did reduce average prices by slightly more than was necessary.

⁸⁷ Ofcom analysis using 2016/17 revenue and cost data published in BT's 2017 RFS for Total Ethernet Basket services. Revenues and Costs taken from page 46, costs by service and component from pages 48-50, and costs by component from Appendix 1.1, pages 110-111.

⁸⁸ 2016 BCMR Statement, paragraphs A10.166 – A10.168 and A10.175 – A10.179.

⁸⁹ 2016 BCMR Statement, paragraphs 4.549-4.561.

⁹⁰ Given the evidence presented above, we also consider that in the RoUK excluding the Five CBDs, BT would be found to have SMP for any of the bandwidths within Lower Bandwidth CISBO (if SMP were assessed in the standard way).

Lower Bandwidth CISBO in each of the Five CBDs

- 2.75 We have considered whether BT has SMP in each of the Five CBDs. To avoid repetition we discuss the CBDs together. However, we also show results for the quantitative indicators for each individual CBD.
- 2.76 The SMP analysis below follows the same structure as for the LP and RoUK excluding the Five CBDs. Where the analysis is the same as above, this is not repeated in full.

Market shares – varies but largely supports SMP

- 2.77 Table 2.4 below provides a breakdown of BT’s share of supply for Lower Bandwidth CISBO services in each of the Five CBDs.
- a) In terms of Lower Bandwidth CISBO as a whole, BT’s share varies between 39% in Glasgow and 59% in Manchester. BT’s market share is higher than that of Virgin Media, with the exception of Glasgow where Virgin Media (with 43%) appears to be slightly larger.
- b) In terms of individual bandwidths, BT’s share varies between 33% in CISBO Low in Leeds and 67% in CISBO Medium in Manchester.
- 2.78 Overall, the service share data suggest that Manchester and Bristol are clearly the least competitive of the Five CBDs, with BT shares above or very close to 50% across most of the range of products. By contrast, Leeds and Glasgow appear to be the most competitive of the Five CBDs. Here, BT has market shares in relation to some products that are very close to or below 40%. Service share data suggest that competitive conditions in Birmingham are somewhere in between Leeds/Glasgow on the one hand, and Manchester/Bristol on the other hand. However, again BT has market shares in relation to some products very close to or below 40%. Overall, we consider that the service share data point strongly to SMP in Manchester and Bristol and less strongly in Leeds, Glasgow or Birmingham.

Table 2.4: BT’s market share for each of the Five CBDs by segment

CBD	CISBO Low	CISBO Medium	CISBO High	CISBO Low and CISBO Medium	CISBO Medium and CISBO High	Lower Bandwidth CISBO
Birmingham	38%	52%	47%	45%	51%	45%
Bristol	40%	56%	55%	48%	56%	49%
Glasgow	35%	43%	42%	39%	43%	39%
Leeds	33%	53%	42%	42%	50%	42%
Manchester	53%	67%	55%	59%	64%	59%
Combined	40%	54%	48%	46%	52%	47%

2.79 Table 2.5 shows the combined shares of BT and Virgin Media as well as a measure of the overall concentration of supply. The combined share of BT and Virgin Media is above 70% with only one exception, CISBO High in Leeds (where the combined share is 63%) and is as much as 90% in CISBO Medium in Manchester. The market leaders' combined share of the Lower Bandwidth CISBO market varies between 77% in Leeds and 84% in Manchester. All other CPs have low shares, resulting in an HHI of over 3,000 in each of the CBDs, a level which indicates that the supply of Lower Bandwidth CISBO services in all of the Five CBDs is highly concentrated.

Table 2.5: The combined market shares of BT and Virgin Media for each of the Five CBDs by segment

CBD	CISBO Low	CISBO Medium	CISBO High	CISBO Low and Medium	CISBO Medium and High	Lower Bandwidth CISBO	Lower Bandwidth CISBO concentration (HHI)
Birmingham	74%	88%	72%	81%	84%	80%	3,355
Bristol	70%	85%	79%	78%	84%	78%	3,397
Glasgow	79%	86%	79%	82%	84%	82%	3,496
Leeds	72%	82%	63%	77%	77%	75%	3,047
Manchester	79%	90%	85%	84%	88%	84%	4,190
Combined	76%	86%	76%	81%	84%	80%	3,411

Control of infrastructure not being easily duplicated – mixed

2.80 As in the LP, BT's ubiquitous infrastructure enables it to supply leased lines to almost any site at low incremental costs. Table 2.6 below provides a breakdown of network reach for each of the Five CBDs.

2.81 The Five CBDs are by design made up of postcode sectors which pass the "high network reach test" so it is to be expected that there will be some level of infrastructure-based competition in most parts of these areas. While there is some variation between the Five CBDs, it is not large.

- a) The average number of OCPs with network within 100m of a business site varies between 2.6 in Glasgow and Leeds and 2.9 in Manchester. However, within this average, a significant proportion of businesses are likely to have fewer than BT+2 effective competing offers at the site. Averaging across the CBDs, 21% of businesses will have only one or zero OCPs within 100m. As CPs will not be willing to dig 100m in all cases, the implication is that a significant minority of users in the CBDs would not be adequately protected by competition between operators with their own fibre-based networks.

- b) As noted above, EFM operators do not need to dig to connect a site as they use existing BT copper local loops, and they are not included in our network reach measures. As explained in paragraph 2.39 above, EFM technology can be used to supply Ethernet leased lines of up to about 30Mbit/s. Thus, for customers requiring the lowest bandwidths, but not those requiring more, EFM exerts an additional constraint, beyond that exerted by nearby fibre networks. There are on average 1.70 EFM operators present at EFM exchanges in the CBDs.⁹¹ There is some variation around this average: at the majority of the exchanges in the CBDs, only 1 or 0 EFM operators were present.⁹²

Table 2.6: Network reach indicators for each of the Five CBDs

		Bristol	Birmingham	Glasgow	Leeds	Manchester	CBDs Combined
Average network reach – 100m		2.8	2.8	2.6	2.6	2.9	2.8
Depth of network reach – 100m	1 or more	100%	100%	97%	94%	95%	97%
	2 or more	83%	81%	79%	74%	78%	79%
	3 or more	55%	59%	49%	52%	62%	55%
	4 or more	28%	28%	28%	32%	33%	30%
	5 or more	15%	15%	13%	17%	16%	15%

Note: Average network reach measures the average number of OCPs with a flexibility point within 100m of businesses. Network reach is determined at the postcode sector level. Depth of rival infrastructure reflects the proportion of businesses in an area that have one or more, two or more, etc OCPs with network flexibility points within 100m.

- 2.82 Overall, the evidence on infrastructure presence is mixed. A substantial number of users within each of the Five CBDs have several nearby operators (as well as the option of EFM, for those with lower bandwidth needs). However a significant minority are likely to face a more limited choice. In relation to these users, BT is likely to be in a strong position.

Economies of scale and scope – supports SMP

- 2.83 Same analysis as in relation to the LP.

Barriers to entry and expansion – supports SMP

- 2.84 Same analysis as at paragraph 2.42 above in relation to the LP.
- 2.85 Further, each CBD is a very small area and business density is moderate. The surrounding areas have low business density and little demand for leased lines. Unlike the LP which benefits from proximity to the CLA, there is no positive stimulus from areas outside of the Five CBDs which would encourage entry into those CBDs.⁹³ There are a small number of postcode sectors within each CBD where network reach is sufficiently high to pass our Boundary Test. We recognise that operators that are only present in this ‘inner CBD’ may

⁹¹ 2016 BCMR Statement, Table A10.15.

⁹² 2016 BCMR Statement, Table A10.16.

⁹³ 2016 BCMR Statement, Volume 1, paragraph 4.594.

incrementally expand their network to other parts of the CBD. However, experience in the LP suggests that the incentives to expand in this way may not be sufficiently strong for material further investment actually to take place. As we noted above (paragraph 2.49), there has been little recent investment in the LP, despite its proximity to the CLA and despite the application of light-touch remedies there in the 2013 BCMR Statement. Similar to the argument in paragraph 2.43 above, to a large extent any benefits of proximity to an inner CBD may be reflected in the infrastructure build which has already taken place in the outer CBD. We have however, taken account of OCPs' investment plans of which we are aware and discuss these below. In any case, despite the greater infrastructure presence, BT's shares of supply in these 'inner CBDs' are generally similar to (and in some cases even above) those in the corresponding 'outer CBD'.⁹⁴

External constraints – not material

2.86 External constraints from asymmetric broadband services are weak for the same reasons given above in relation to the LP. Similarly, dark fibre supplied to end consumers is quantitatively insignificant in relation to the volume of Lower Bandwidth CISBO services in the Five CBDs.⁹⁵

Countervailing buyer power – not material

2.87 Same analysis as in the LP.

Profitability and pricing – supports SMP

2.88 There are no separate profitability figures for the Five CBDs. However, in the Five CBDs, there is no evidence of price discounting by BT.⁹⁶ Prices are apparently the same as in other parts of the RoUK therefore, suggesting BT enjoys a similarly strong position in these cities to the RoUK excluding the Five CBDs.

Prospects for competition – supports SMP

2.89 Prospects for further entry and competition in the Five CBDs are limited by the relatively small size of the areas and hence low demand for leased lines.

2.90 Only two CPs (Virgin Media and CityFibre) had plans for material expansion in the market review period. As discussed in paragraph 2.23 above, since the 2016 BCMR Statement, both CityFibre and Virgin Media have increased their network coverage. However, in the light of that above discussion, we consider that this network expansion is unlikely to have a material impact in any of the Five CBDs within the timeframe of this statement. In

⁹⁴ BT's share of the Lower Bandwidth CISBO market in the inner part of the Bristol CBD is less than 1% below its share in the outer CBD, whilst its share of CISBO Medium and CISBO High is actually higher in the inner CBD. In the Manchester CBD, BT's share of the Lower Bandwidth CISBO market in the inner and outer parts are approximately equal.

⁹⁵ 2016 BCMR Statement, Volume 1, Table 4.3 and paragraph 4.593.

⁹⁶ 2016 BCMR Statement, Volume 1, paragraph 4.594.

particular, the focus of Virgin Media's investment is roll-out to residential properties, primarily in the RoUK.⁹⁷

Summary

- 2.91 Overall, the above evidence supports an SMP finding in the market for Lower Bandwidth CISBO services in each of the Five CBDs. However, given the conservative approach we have adopted, we make an SMP finding only for the Bristol and Manchester CBDs.
- 2.92 Based on an in the round assessment, we consider that Manchester and Bristol are clearly the least competitive of the Five CBDs, with BT market shares above or very close to 50% across most of the range of products.⁹⁸ The picture in relation to infrastructure presence (including the presence of EFM operators) is more mixed. However, the share of supply data suggests that, with the partial exception of Virgin Media, other CPs have enjoyed limited success in converting their infrastructure presence into sales. All other material indicators support a finding of SMP.
- 2.93 In relation to Leeds and Glasgow, service share data suggest that BT's position here may be somewhat weaker than in the other CBDs. Although a number of indicators do point to SMP in these markets, BT has market shares in relation to some products very close to or below 40%. In relation to Birmingham, competitive conditions appear to be somewhere in between Leeds/Glasgow on the one hand, and Manchester/Bristol on the other hand. Overall, we consider that a conservative approach therefore points to not finding SMP in relation to Leeds, Glasgow or Birmingham. We do however recognise that, even under the conservative approach we are applying for the purposes of this statement, a strong case could be made for finding SMP in Lower Bandwidth CISBO services in the Birmingham CBD.
- 2.94 Our view that BT has SMP in at least Lower Bandwidth CISBO services in the Bristol and Manchester CBDs would not be altered if the relevant market were all CISBO services. In the 2016 BCMR Statement, we indicated that, had we assessed the Five CBDs separately, we would have found that BT has SMP in all CISBO services.⁹⁹

Products where the SMP assessment would be affected by our assessment of the remitted matters

- 2.95 For the following reasons we are not concluding on whether BT has SMP in relation to:
- a) Lower Bandwidth CISBO services in the CLA; and

⁹⁷ In 2016 we stated that nearly all [3<] of Virgin Media's planned rollout is outside the Five CBDs. 2016 BCMR Statement, paragraphs A10.166 – A10.168 and A10.175 – A10.179.

⁹⁸ The only exception is if CISBO Low in the Bristol CBD is looked at in isolation. However even in this product BT's share is at 40%.

⁹⁹ 2016 BCMR Statement, paragraphs 4.589-4.596. Given the evidence presented above, we also consider that in both the Manchester CBD and the Bristol CBD, BT would be found to have SMP for any of the bandwidths within Lower Bandwidth CISBO (if SMP were assessed in the standard way).

- b) a separate market for VHB CISBO services.

Lower Bandwidth CISBO in the CLA

- 2.96 We recognise that in addressing the remitted matters we may conclude that the market is wider than we have defined for the purpose of this statement.
- 2.97 In the 2016 BCMR Statement, we assessed SMP in the CLA for an all CISBO market and found that no CP had SMP.¹⁰⁰ If we were to find that BT had SMP in Lower Bandwidth CISBO services in the CLA, that finding would therefore not be robust to the possibility that the relevant market is in fact all CISBO services. Accordingly, we have not assessed whether BT has SMP in Lower Bandwidth CISBO services in the CLA in this statement.

VHB CISBO services

- 2.98 We make no finding in relation to SMP in VHB CISBO services for the purpose of this statement. The data compiled for the 2016 BCMR Statement suggests that BT's share of VHB CISBO services was low – see Table 2.7 below.¹⁰¹ In isolation, this data might suggest that BT is not unilaterally dominant in most areas. BT's share of VHB CISBO services in the RoUK excluding the Five CBDs is, following [§<], just above the 40% level at which concerns about dominance usually arise. However, we do not make an SMP finding in respect of VHB CISBO services in the RoUK excluding the Five CBDs in this statement. This is to reflect the exceptional circumstances of this statement which, as discussed in paragraph 2.25 above, mean we have adopted a conservative approach to imposing regulation on BT.¹⁰²

Table 2.7: BT share of VHB CISBO

	CLA	LP	CBDs combined	RoUK excl. CBDs
BT share of VHB CISBO	12%	19%	23%	41%

Note: BT's share in the Birmingham CBD is 9%, in the Bristol CBD is 7%, in the Glasgow CBD is 50%, in the Leeds CBD is 33% and in the Manchester CBD is 19%.

- 2.99 We will consider these issues as we address the remitted matters.

Conclusion on SMP

- 2.100 Our conclusion is that BT has SMP in the following markets:
- a) a market comprising Lower Bandwidth CISBO services in the LP;

¹⁰⁰ 2016 BCMR Statement, paragraphs 4.519-4.548.

¹⁰¹ The exception is Glasgow, where BT's share was 50%. However the number of VHB CISBO circuits in each CBD is low: it varies between [§<]; there were [§<] VHB CISBO circuits in the Glasgow CBD. Accordingly we place little weight on BT's share of VHB CISBO shares in the CBDs.

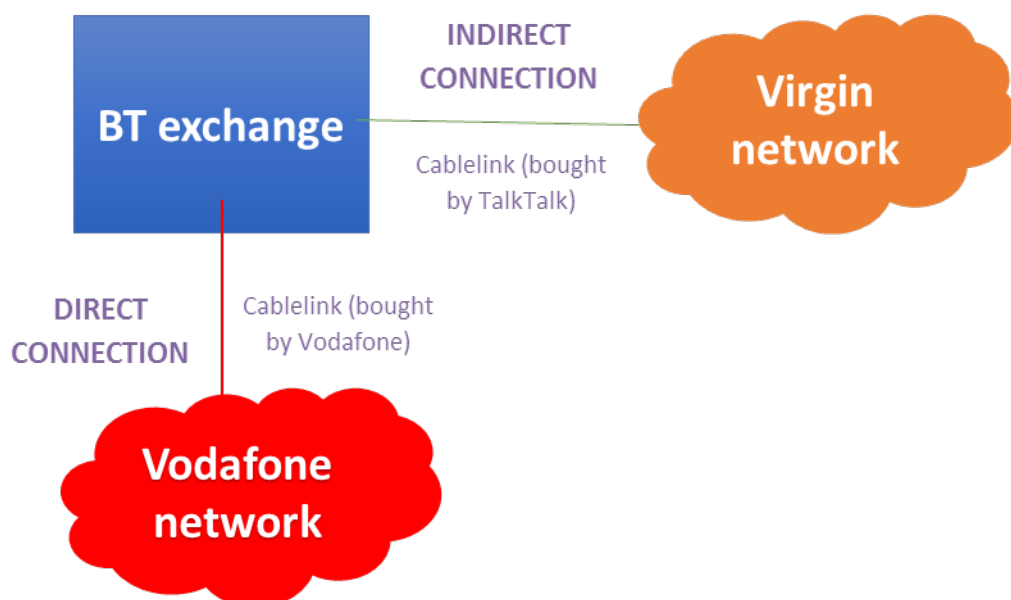
¹⁰² In addition, as noted in Annex 5 of the 2016 BCMR Statement, estimation and interpretation of service shares in the VHB CISBO segment is subject to a number of limitations which reduce their usefulness as an indicator of competitive conditions within that segment.

- b) markets comprising Lower Bandwidth CISBO services in the CBDs of each of Bristol and Manchester; and
- c) a market comprising Lower Bandwidth CISBO services in the RoUK excluding the Five CBDs.

CI Core

- 2.101 Ofcom’s assessment of market definition and SMP in CISBO services relates to terminating segments. As the remedies to address our SMP findings apply only to the terminating segments of leased lines, it is necessary to determine the boundary between terminating segments (where remedies apply) and core segments (where they do not).¹⁰³
- 2.102 In the 2016 BCMR Statement, we identified 34 New Competitive Exchanges (NCEs) to add to the existing competitive core defined in the 2013 BCMR Statement.¹⁰⁴ These exchanges were identified based on the ‘presence’ of the main rival network operators to BT, which we referred to as Principal Core Operators (PCOs). Those exchanges with sufficient PCO presence were deemed to be competitive. A PCO may be present as a result of either ‘direct’ or ‘indirect’ connection. The difference is illustrated in Figure 2.1 below where we show a BT exchange where two PCOs are present: Vodafone (directly connected) and Virgin Media (indirectly connected).

Figure 2.1: Illustration of direct and indirect connections



- 2.103 In this figure, Vodafone is shown as directly connected because it is purchasing a Cablelink to connect the BT exchange to its own network. Virgin Media is present but is only

¹⁰³ Figure 10 of the judgment illustrates different network segments.

¹⁰⁴ BT did not appeal the decision that the 56 TANS identified in the 2013 BCMR Statement remain part of the CI Core or our decision in the 2016 BCMR Statement to identify 64 datacentres as part of the CI Core.

connected indirectly to the BT exchange. A third-party operator, TalkTalk, is purchasing the Cablelink and using that link to connect to Virgin Media's network.

- 2.104 In the 2016 BCMR Statement, we decided that the CI Core consisted of exchanges where BT plus three or more PCOs were present (either directly or indirectly connected).
- 2.105 The Tribunal considered that Ofcom's view that indirect presence would impose a weaker constraining effect compared to a direct presence was "*well reasoned and clearly within the scope of Ofcom's reasonable judgement.*"¹⁰⁵ However it considered that Ofcom erred in the reasoning which led it to reject the results of applying 'BT plus two directly connected PCOs' as the criterion for identifying the CI Core and instead adopting the BT plus three PCOs criterion. The Tribunal did not reach its own view on the correct CI Core definition and remitted this issue to Ofcom to reconsider.
- 2.106 It will be necessary for Ofcom to conduct further analysis to determine the precise scope of the CI Core as part our consideration of the remitted matters.
- 2.107 In light of the exceptional circumstances and urgency explained in section 1 above, for the purpose of this statement it is necessary to determine the scope of the CI Core based on the evidence currently available to us (including the analysis conducted for the BCMR 2016). In line with our conservative approach of ensuring that we only impose temporary SMP conditions in relation to services where we are able to conclude now that BT has SMP, we have sought to identify the maximum potential extent of the core that could be identified in the light of the Tribunal's findings.¹⁰⁶
- 2.108 The Tribunal's view was that Ofcom erred in its reasoning which rejected the criterion of BT+2 directly connected PCOs. Therefore, in light of the Tribunal's findings, in this statement we identify the CI Core by identifying exchanges where:
- a) BT plus three or more PCOs (either direct or indirectly connected) are present; and/or
 - b) BT plus two directly connected PCOs are present.
- 2.109 In the May 2015 BCMR Consultation we estimated that there were 96 exchanges where BT plus two directly connected PCOs are present. However, following that consultation we made a formal information request to telecoms providers to gather additional information about these exchanges. Based on the updated data, we identify 107 exchanges in total that pass the new criteria set out in paragraph 2.108 above.^{107 108}

¹⁰⁵ Paragraph 443 of the judgment.

¹⁰⁶ We have not revisited the datacentres identified in the Statement nor the existing 56 TANs, and these remain part of the CI Core definition.

¹⁰⁷ The 107 is made up of: 35 exchanges with at least three PCOs (direct or indirectly connected); and 72 exchanges with exactly two directly connected PCOs present. At 105 of the 107 exchanges there is BT plus two or more directly connected PCOs present.

¹⁰⁸ The 2016 BCMR Statement stated that 34 exchanges passed the BT plus three PCOs (either direct or indirectly connected) criterion. However, a further review of the model used for that statement found an error, which suggests that 35 exchanges in fact pass this criterion. At one BT exchange we identified two directly connected PCOs. However, we failed to identify that one of the PCOs interconnected with BT using both its own core network and also using the services of a third PCO for diversity reasons.

- 2.110 The specific BT exchanges included in the CI Core are listed in schedule 22 to the revised SMP conditions in Annex 1.
- 2.111 For the avoidance of doubt, when we revisit the definition of the CI Core, taking into account the issues identified by the Tribunal, this may ultimately result in fewer exchanges being deemed competitive than those identified in this statement.

3. General remedies

Introduction

- 3.1 As explained in section 1, we are prioritising our work on the remitted matters. As soon as it is completed we will remove all of the temporary remedies contained in this document, and this may therefore occur before March 2019. In this and the following sections we set out our decisions to impose a number of SMP remedies on BT in the period until the end of March 2019 in the Lower Bandwidth CISBO markets in which we have found BT has SMP.
- 3.2 We have decided that the remedies we impose will take effect from Wednesday 29 November 2017, with the exception of the charge control and minimum quality standards, which will take effect from Friday 1 December 2017.
- 3.3 In this section we set out our decision to impose general SMP remedies on BT in the period until the end of March 2019 in the Lower Bandwidth CISBO markets in which we have found BT has SMP. By general remedies, we mean those that apply across most or all of the wholesale leased lines markets in which we find BT to have SMP. The general remedies apply to all forms of network access that we require BT to offer in these markets. In summary these are:

Table 3.1: Summary of general remedies we are imposing on BT

General remedies
– Requirement to provide network access on reasonable request
– Requirement not to discriminate unduly
– Equivalence of Inputs
– Requirement to publish a reference offer
– Requirement to notify changes to charges terms and conditions
– Requirement to notify technical information
– Accounting separation
– Cost accounting

- 3.4 In making these decisions we have taken utmost account of the relevant BEREC Common Positions.

Approach to setting general remedies for the purposes of the temporary conditions

- 3.5 Our starting point has been to consider whether it is appropriate to impose the same form of general remedies we set in our 2016 BCMR Statement. This is because the competition concerns that led us to impose our general remedies in the 2016 BCMR Statement still apply to the services in which we have decided that BT has SMP. We have also considered whether any adjustments to the remedies are required in light of the fact that we are not

concluding on SMP in relation to CISBO services above 1Gbit/s and in the CBDs of Birmingham, Glasgow and Leeds.

- 3.6 In relation to each of the remedies we are imposing, we explain why there is an urgent need to act in order to safeguard competition and to protect the interests of consumers, in accordance with section 48A of the Act.
- 3.7 Ofcom has also considered¹⁰⁹ whether competition law or BT's voluntary commitments/the BT Undertakings would provide a sufficient safeguard.¹¹⁰
- 3.8 In relation to competition law, whilst this prohibits the abuse of a dominant position, it may not effectively address the competition problems arising from BT's SMP. Addressing competition problems in relation to the range of leased lines services in which we have found BT to have SMP requires an interconnected and complex package of remedies, which can be imposed only through *ex ante* regulation. As noted in the 2016 BCMR Statement, *ex ante* regulation can be specifically tailored to address the competition problems we have identified.¹¹¹ We think it is important to provide sufficient certainty about the rules applying to BT, and consider that this is best achieved through *ex ante* regulation. This will also allow for timely intervention by us proactively enforcing the SMP conditions and, if necessary, by parties bringing regulatory disputes relating to SMP conditions to us for swift resolution.
- 3.9 BT's voluntary commitments and the BT Undertakings both seek to deploy a variety of mechanisms to ensure equal treatment of Openreach's customers, and to prevent discriminatory conduct by BT when supplying wholesale network access and backhaul services to its downstream competitors. We consider that both the BT Undertakings and BT's voluntary commitments are intended to complement *ex ante* regulation, and that they are not sufficient to address the competition problems identified in the Lower Bandwidth CISBO markets in which we have found BT has SMP.

Requirement to provide network access on reasonable request

2016 BCMR Statement

- 3.10 In the 2016 BCMR Statement, we imposed a remedy requiring BT to provide network access: on reasonable request, as soon as it is reasonably practicable, and on fair and reasonable terms and conditions (or such other terms and conditions we may from time to time direct). As explained in section 5, we also decided to apply an additional obligation to set fair and reasonable prices where they are not subject to the charge controls.

¹⁰⁹ Ofcom has also considered these points in relation to the remedies set out in sections 4-6. The assessment set out here applies equally to those remedies, so for the sake of brevity we do not repeat it in later sections.

¹¹⁰ On 10 March 2017, BT gave voluntary commitments to Ofcom in relation to the reform of Openreach. Ofcom will release BT from the BT Undertakings once these commitments are fully in place.

¹¹¹ 2016 BCMR Statement, Volume 1, paragraph 7.15.

Aim and effect of the regulation

- 3.11 The level of investment required by a third party to replicate BT's network and build sufficiently large access networks to compete is a significant barrier to entry. In our view, an obligation requiring dominant providers to make access to their network facilities available to third parties on reasonable request is fundamental to promoting competition in downstream markets. In the absence of such a requirement BT would have both the incentive and ability to refuse access at the wholesale level thereby favouring its own retail operations. This would hinder sustainable competition in the corresponding downstream markets, ultimately against end-users' interests.

Our decision

- 3.12 We have decided to impose an SMP obligation requiring BT to provide network access where a third party reasonably requests it. Our reasons for considering why this is an appropriate remedy remain as set out in paragraphs 8.11 to 8.36 of the 2016 BCMR Statement.
- 3.13 We consider that there is an urgent need to impose this remedy. In the absence of this remedy, BT would have the incentive and ability to immediately refuse access at the wholesale level, thereby favouring its own retail operations. We consider that this poses a substantial risk to competition in downstream markets and could cause substantial damage to downstream markets in the immediate term, resulting in a less competitive market in the medium term. We therefore consider that there is a considerable risk of consumer detriment.
- 3.14 For the reasons set out above and summarised in paragraphs 8.24 to 8.36 of the 2016 BCMR Statement, we are satisfied that the conditions meet the relevant tests in the Act.

Process for handling requests for new forms of network access

2016 BCMR Statement

- 3.15 Under the BCMR 2016 remedies, BT was subject to an obligation that specified detailed requirements for the handling of requests for new types of network access. It required BT to publish guidelines called Statement of Requirements (SoR) specifying the content and form of requests and how they would be handled.

Our decision

- 3.16 Although we remain of the view that an obligation to provide a standardised SoR process is appropriate for promoting competition in downstream markets, we consider that the imposition of the obligation does not meet the statutory urgency requirement for the purposes of this statement. We have therefore decided not to impose an SMP obligation requiring BT to provide a standardised SoR process. The absence of this obligation in no

way diminishes Openreach's obligation to respond to requests for new forms of network access in a reasonable manner.

Requirement not to discriminate unduly and Equivalence of Inputs

2016 BCMR Statement

- 3.17 In the 2016 BCMR Statement we imposed a requirement on BT not to unduly discriminate and to provide services in the markets for CISBO services in the LP and RoUK including the Five CBDs to competitors on an Equivalence of Inputs (EOI) basis.

Aim and effect of the regulation

- 3.18 A non-discrimination obligation is intended as a complementary remedy to the network access obligation, principally to prevent the dominant provider from discriminating in favour of its own downstream divisions and to ensure that competing providers are placed in an equivalent position. Without such an obligation, the dominant provider is incentivised to provide the requested wholesale network access service on terms and conditions that discriminate in favour of its own downstream divisions.
- 3.19 Non-discrimination can have different forms of implementation. A strict form of non-discrimination would result in the SMP operator providing exactly the same products and services to all CPs (including its own downstream divisions) on the same timescales, terms and conditions (including price and service levels), by means of the same systems and processes and by providing the same information, an arrangement which has become known as EOI. A less strict implementation of non-discrimination may allow for flexibility and result in a more practical and cost-effective implementation of wholesale inputs in cases where it is economically justified.

Our decision

- 3.20 We believe it is appropriate to require BT not to unduly discriminate and to deliver Lower Bandwidth CISBO services in the markets in which we have found BT has SMP on an EOI basis. Our reasons for this remain as set out in paragraphs 8.78 to 8.83 of the 2016 BCMR Statement.
- 3.21 We consider that there is an urgent need to impose this remedy. In the absence of this remedy, BT would have the incentive and ability to provide requested wholesale network access service on terms and conditions that discriminate in favour of its own downstream divisions. This could have a harmful effect on competition, substantially damaging downstream markets in the short and medium term by either delaying third party CP's access to BT's network, or making it substantially more expensive to operate a downstream business in competition with BT.
- 3.22 For the reasons set out above and summarised in paragraphs 8.98 to 8.105 of the 2016 BCMR Statement, we are satisfied that the conditions meet the relevant tests in the Act.

Interconnection and accommodation services

2016 BCMR Statement

- 3.23 In the 2016 BCMR Statement, we imposed a requirement on BT to meet reasonable requests for interconnection and accommodation services under the general network access obligation that we imposed for wholesale CISBO services in the LP and the RoUK including the Five CBDs.

Aim and effect of the regulation

- 3.24 We consider that in the absence of regulation BT would have the incentive not to supply some or all interconnection services or to charge excessive prices, particularly as it does not require these services in order to provide its own downstream retail services. As CPs must purchase interconnection services to use BT regulated products, this would have the same effect as refusal to supply or excessive pricing for the main wholesale products that BT supplies. We also consider that in the absence of regulation BT would have the incentive and ability to discriminate in favour of its own needs in allocating accommodation in BT exchanges.

Our decision

- 3.25 Network access is defined in section 151(3) of the Act and includes interconnection services and/or any services or facilities that would enable another telecoms provider to provide electronic communications services or electronic communications networks. We consider that a requirement to provide network access would, therefore, include any ancillary services as may be reasonably necessary for a third party to use the services. Consequently, each of the network access obligations that we have decided to impose and outline in this section also applies to the provision of interconnection and accommodation services that are reasonably required by CPs when consuming regulated services. Accordingly, under the same logic that we consider it is urgent to impose the general network access obligation, we also consider it is urgent to impose obligations for these services to safeguard competition and to protect the interests of consumers.
- 3.26 In section 5 we discuss the specific types of interconnection and accommodation services that we have decided that BT should be required to provide.
- 3.27 For the reasons set out above and summarised in paragraphs 12.59 to 12.65 of the 2016 BCMR Statement, we are satisfied that the conditions meet the relevant tests in the Act.

Transparency and notification requirements

- 3.28 We have decided that BT should be subject to a set of obligations designed to promote transparency, reduce the risk of undue discrimination and ensure that CPs are able to make effective use of the dominant provider's network access.

Requirement to publish a Reference Offer

2016 BCMR Statement

3.29 In the 2016 BCMR Statement, BT was required to publish a Reference Offer (RO) in relation to the provision of network access, setting out (at a minimum) such matters as the terms and conditions for provisioning, technical information, SLAs and SLGs, and availability of co-location. This obligation also prohibited BT from departing from the charges, terms and conditions set out in the RO. It also required BT to comply with any directions Ofcom may make from time to time under the condition.

Aim and effect of the regulation

3.30 A requirement to publish an RO has two main purposes:

- to assist transparency for the monitoring of potential anti-competitive behaviour; and
- to give visibility to the terms and conditions on which other providers will purchase wholesale services.

3.31 This helps to ensure stability in markets as, without it, incentives to invest might be undermined and market entry less likely.

3.32 The publication of an RO allows for quicker negotiations, helps to avoid possible disputes and gives confidence to those purchasing wholesale services that they are being provided on non-discriminatory terms. Without this, market entry might be deterred to the detriment of the long-term development of competition and hence consumers.

Our decision

3.33 We consider that the requirement to publish ROs imposed in previous market reviews has been effective in meeting the aims of the regulation detailed above. Therefore, we have decided that BT should be required to publish a RO for wholesale network access products. Our reasons for this remain as set out in paragraphs 8.119 to 8.124 in our 2016 BCMR Statement.

3.34 We consider that there is an urgent need to impose this remedy. In the absence of this remedy it would be substantially harder to monitor potentially anti-competitive behaviour. It could undermine incentives to invest, as BT could offer an individual downstream competitor materially worse terms of access than it would if it had to publish these terms in a reference offer, potentially to the extent that the competitor could not operate effectively in downstream markets.

3.35 For the reasons set out above and summarised in paragraphs 8.125 to 8.133 of the 2016 BCMR Statement, we are satisfied that the conditions meet the relevant tests in the Act.

Requirement to notify changes to charges, terms and conditions

2016 BCMR Statement

- 3.36 BT was required to give advanced notice before making changes to its charges or terms and conditions for the provision of existing or new network access in each of the wholesale leased lines markets.

Aim and effect of the regulation

- 3.37 Notification of changes to charges, terms and conditions at the wholesale level has the joint purpose of assisting transparency for the monitoring of potential anti-competitive behaviour, and giving advance warning of such changes to competing providers who buy wholesale access services. Without change notifications, there is a risk that CPs would have insufficient time to react to changes to wholesale charges, terms and conditions and could, for instance, be left financially exposed by changes to wholesale prices. We therefore consider that the advantages of notifying charges are likely to outweigh any potential disadvantages.

Our decision

- 3.38 We have decided to impose an SMP condition on BT to notify changes to its charges, terms and conditions. Notification of changes to charges, terms and conditions has the joint purpose of assisting transparency for the monitoring of anti-competitive behaviour and giving advance warning of such changes to competing providers, thereby ensuring stability in markets without which incentives to invest might be undermined and market entry made more difficult. Our detailed reasons remain as set out in paragraphs 8.141 to 8.145 of the 2016 BCMR Statement.
- 3.39 We consider that there is an urgent need to impose this remedy. In the absence of this remedy it would be substantially harder to monitor potentially anti-competitive behaviour. We also consider that it could undermine incentives to invest, as BT could substantially change the price and terms on which it has provided access to a third-party CP.
- 3.40 For the reasons set out above and summarised in paragraphs 8.146 to 8.150 of the 2016 BCMR Statement, we are satisfied that the conditions meet the relevant tests in the Act.

Requirement to notify changes to technical information

2016 BCMR Statement

- 3.41 In the 2016 BCMR Statement, we imposed an obligation on BT to publish, in advance, changes to technical information in each of the wholesale leased lines markets.

Aim and effect of the regulation

- 3.42 Complementary to the requirement to publish a RO, which includes technical information, the aim of this regulation is to provide advanced notification of changes to technical

characteristics. This is to ensure that CPs have sufficient time to respond to changes that may affect them. The existing condition requires the notification of new technical information within a reasonable period of time but not less than 90 days in advance of providing new wholesale services or amending existing technical terms and conditions.

Our decision

- 3.43 We consider the requirement to notify technical information previously imposed has been effective in allowing providers sufficient time to prepare for such changes. Therefore, we have decided to impose the same form of requirement for the purposes of this statement. Our detailed reasons for this remain as set out in paragraphs 8.159 to 8.161 in our 2016 BCMR Statement.
- 3.44 We consider that there is an urgent need to impose this remedy. In the absence of this remedy third-party CPs may not have sufficient time to respond to changes that may affect them, and therefore the price and quality of the services they offer to end-users. Without the imposition of this remedy third-party CPs may also be unable to compete effectively in downstream markets, as BT may give its downstream operations advanced sight of new or amended technical characteristics.
- 3.45 For the reasons set out above and summarised in paragraphs 8.162 to 8.166 of the 2016 BCMR Statement, we are satisfied that the conditions meet the relevant tests in the Act.

Requirements for cost accounting

2016 BCMR Statement

- 3.46 In the 2016 BCMR Statement we imposed various cost accounting obligations on BT.

Aim and effect of the regulation

- 3.47 Cost accounting obligations require the dominant provider to maintain a cost accounting system (a set of processes and systems) to capture the costs, revenues, assets and liabilities associated with the provision of services and to attribute them in a fair, objective and transparent manner to individual services in order that the costs of individual services may be determined. The imposition of cost accounting obligations on dominant providers is an important means of ensuring that:
- we have the necessary information to support the monitoring of the effectiveness of pricing remedies, in particular to ensure that the pricing remedies we impose continue to address the competition problems identified and to enable our timely intervention should such intervention ultimately be needed;
 - wholesale costs are attributed across the wholesale markets (and the individual services within them) in a consistent manner. This mitigates in particular against the risk of double recovery of costs or that costs might be loaded onto particular products or markets;

- publication (i.e. reporting) of cost accounting information aids transparency, providing reasonable confidence to stakeholders about compliance with SMP obligations, allowing stakeholders to monitor compliance and more generally enabling stakeholders to make better informed contributions to the development of the regulatory framework; and
- BT records all the information necessary for the purposes listed above, at the time that relevant transactions occur, on an on-going basis. Absent such a requirement, there is a strong possibility that the necessary information would not be available when it is required and in the necessary form and manner.

Our decision

- 3.48 We have decided to impose on BT the SMP conditions that flowed from our conclusions in the 2014 Regulatory Financial Reporting Statement. We set out our reasoning and decisions on the specific form of the cost accounting and accounting separation requirements we are imposing on BT in these markets in the 2014 Regulatory Financial Reporting Statement. Our detailed reasons remain as set out in paragraphs 8.174 to 8.179 of the 2016 BCMR Statement.
- 3.49 We consider that there is an urgent need to impose this remedy. In the absence of this remedy Ofcom would be unable to monitor the effectiveness of pricing remedies against addressing the competition problems identified, and would be unable to intervene in a timely manner should we need to do so.
- 3.50 Without the imposition of this remedy we would also be unable to mitigate the risk of double recovery of costs, and would be unable to guarantee BT's compliance with its SMP obligations.
- 3.51 For the reasons set out above and summarised in paragraphs 8.180 - 8.185 of the 2016 BCMR Statement, we are satisfied that the conditions meet the relevant tests in the Act.

Requirements for accounting separation

2016 BCMR Statement

- 3.52 The 2016 BCMR Statement imposed accounting separation obligations on BT.

Aim and effect of the regulation

- 3.53 The accounting separation obligations require BT to account separately for internal and external sales, which allows Ofcom and CPs to monitor the activities of BT to ensure that it does not discriminate unduly in favour of its own downstream businesses. In practice these obligations require BT to produce financial statements that reflect the performance of the regulated wholesale markets as though they were separate businesses.

Our decision

- 3.54 We have decided that it is appropriate to impose an accounting separation obligation on BT. We consider that this obligation is necessary to monitor BT's activities with regard to its non-discrimination obligations.
- 3.55 The SMP conditions and directions that we refer to in the discussion about the cost accounting obligations also apply to the accounting separation obligations. Our detailed reasons for considering that these requirements are appropriate remain as set out in paragraphs 8.190 to 8.191 in our 2016 BCMR Statement.
- 3.56 We consider that there is an urgent need to impose this remedy. In the absence of this remedy Ofcom would be unable to monitor the activities of BT to ensure that it does not discriminate unduly in favour of its own downstream businesses, and would therefore be unable to intervene in a timely manner.
- 3.57 For the reasons set out above and summarised in paragraphs 8.192 to 8.197 of the 2016 BCMR Statement, we are satisfied that the conditions meet the relevant tests in the Act.

Detailed requirements concerning cost accounting and accounting separation obligations

2016 BCMR Statement

- 3.58 In the 2016 BCMR Statement we imposed on BT the SMP conditions capturing the specific form of BT's cost accounting and accounting separation requirements that flowed from our conclusions in the 2014 Regulatory Financial Reporting Statement.¹¹² We also imposed more detailed reporting requirements to ensure that the information that BT publishes in its Regulatory Financial Statements (RFS) and provides to Ofcom in private, such as the Additional Financial Information (AFI), is relevant and appropriate. These detailed reporting requirements were specified in the directions given under the regulatory reporting SMP conditions and included among others: requirements on the consistency with our regulatory decisions and the preparation, audit, delivery, publication, form and content of BT's RFS.¹¹³

Our decisions

- 3.59 We consider that it is very important that BT continues to publish and provide to Ofcom relevant and appropriate information for the Lower Bandwidth CISBO markets in the period until March 2019.

¹¹² https://www.ofcom.org.uk/data/assets/pdf_file/0025/78460/financial-reporting-statement-may14.pdf

¹¹³ 2016 BCMR Statement, Volume 1, Section 16.

- 3.60 In the absence of this information we would not have the required financial information to investigate competition issues. This would in turn inhibit our ability to make informed regulatory decisions in relation to wholesale leased lines markets.
- 3.61 The absence of this information would make it significantly more difficult for Ofcom to monitor compliance with, and the effectiveness of, the remedies imposed in this statement, including pricing remedies. It would create a risk of double recovery of costs or inappropriate attribution of costs in the regulated SMP markets.
- 3.62 BT's regulatory reporting requirements also aim to provide transparency and reasonable confidence to stakeholders that the SMP provider has complied with its SMP conditions and add credibility to the regulatory financial reporting regime.
- 3.63 In the light of the above, we consider that there is an urgent need to require BT to publish and provide to Ofcom relevant and appropriate information in relation to the Lower Bandwidth CISBO markets in the period until March 2019.
- 3.64 In the BCMR 2016 we considered in detail and consulted on the regulatory reporting requirements for the wholesale leased line markets. We believe that subject to the limited adjustments set out below these requirements remain appropriate for the Lower Bandwidth CISBO markets in which we have found BT has SMP. We have therefore decided to specify these requirements (adjusted as appropriate) in the directions given under the temporary conditions. Our detailed reasons for this remain as set out in Section 16, Volume I of the 2016 BCMR Statement.
- 3.65 Given the changes to the market definition and remedies in this statement, we have made the following adjustments to the scope of the regulatory reporting requirements:
- a) First, we are not making an SMP determination in relation to VHB CISBO services. Therefore, we have adjusted the scope of the requirements for additional public reporting set out in the 2016 BCMR Statement to exclude:
 - EAD 10,000Mbit/s;
 - EBD 10,000Mbit/s;
 - WDM Services;
 - Wholesale extension services above 1,000Mbit/s;
 - Backhaul extension services above 1,000Mbit/s.
 - b) Second, we are not making an SMP determination in relation to the CBDs of Birmingham, Glasgow and Leeds. Therefore, we have adjusted the scope of the reporting requirements to exclude these geographic areas.
 - c) Third, we are not imposing a dark fibre remedy as part of the temporary conditions. Therefore, the following information is not required:¹¹⁴
 - i) Information published in the RFS:

¹¹⁴ As set out in this statement, subject to consultation responses we intend to impose a dark fibre remedy as soon as possible in this market review period. We will consider adding these regulatory reporting requirements in relation to dark fibre when we make our decision.

- **Dark Fibre Services:** (Non-Confidential Statements); the total volumes, average prices and revenues for dark fibre non-LA, dark fibre LA services and dark fibre Main Link Services (including their variants)
 - volume, average price, revenue and total FAC cost for BT's dark fibre services in aggregate
- ii) Information provided to Ofcom in private
- The schedule entitled Dark Fibre Services Revenues and Costs.

3.66 We have also considered how the duration of the temporary conditions (until March 2019) should interact with BT's obligations to publish the RFS capturing information for all regulated SMP markets and provide information to Ofcom within four months after the end of the financial year to which they relate. We believe that it is very important that BT continues to comply with its regulatory reporting obligations on an annual basis and that the RFS show the information for all regulated SMP markets. We therefore consider it appropriate to replicate as much as possible the regulatory reporting periods of the BCMR 2016 for the purposes of BT's regulatory reporting.

3.67 This means that the RFS to be published by: (i) the end of July 2018 for the financial year 2017/18, and (ii) by the end of July 2019 for the financial year 2018/19, should capture the information relating to the Lower Bandwidth CISBO markets in which we have found BT has SMP. We recognise that in the financial year 2017/18 BT will have been subject to two sets of regulatory reporting requirements in the wholesale leased line markets as the requirements for the Lower Bandwidth CISBO services are only imposed on a prospective basis and take effect on the date of publication of this statement. However, we expect BT to prepare and present the information relating to the Lower Bandwidth CISBO markets in which we have found BT has SMP for the whole financial year 2017/18 on the basis set out in this statement and the SMP conditions and directions included in Annex 1.

3.68 BT may aggregate reported results for the CBDs of each of Manchester and Bristol with the reported results for the LP. We do not think it would be proportionate to require BT to separately report results in the CBDs of each of Manchester and Bristol. Further, we do not believe, given the prospective sizes of these markets, that results for each CBD would necessarily be statistically reliable.

3.69 In section 2, we explain that we are not in a position to conclude in this statement that BT has SMP in the VHB CISBO market and that we will therefore consider this issue as part of our subsequent work. BT currently captures this information in its regulatory accounting system as the directions given in the BCMR 2016 applied to the VHB CISBO segment. The provision of this information to Ofcom as a confidential AFI would not therefore be burdensome for BT and would assist Ofcom in addressing the remitted matters. We have therefore decided to require BT to provide information to us privately on costs and revenues on VHB CISBO services (i.e. CISBO services over 1Gbit/s and WDM services of all bandwidths). These should be to the same level of granularity as specified in the 2016 BCMR Statement and by the same market groupings as defined in this statement in relation to Lower Bandwidth CISBO markets.

3.70 For the reasons set out above and summarised in paragraphs 16.91 to 16.102 of the 2016 BCMR Statement, we are satisfied that the conditions meet the relevant tests in the Act.

4. Specific access remedies

Introduction

- 4.1 Obligations to provide specific types of network access are intended as a complementary remedy to the general network access obligation. They require an SMP operator to provide specific types of network access that are widely used by CPs.
- 4.2 This section sets out our assessment of whether it is necessary and appropriate to impose in the period until March 2019 specific active remedies on Lower Bandwidth CISBO services in the markets in which we have found BT has SMP.
- 4.3 In making these decisions we have taken utmost account of the relevant BEREC Common Positions.

Requirement to provide specific types of network access

2016 BCMR Statement

- 4.4 In the 2016 BCMR Statement we imposed the following specific network access obligations in relation to wholesale Ethernet and WDM services on BT:
 - a) a requirement to provide disaggregated wholesale Ethernet access and backhaul segments;
 - b) a requirement to provide short range end-to-end wholesale Ethernet services;
 - c) a requirement to provide end-to-end wholesale WDM services; and
 - d) a requirement to provide wholesale WDM backhaul segments.

Our decisions

- 4.5 The SMP determination in section 2 of this statement applies to a narrower set of services than the one adopted in the 2016 BCMR Statement in that it does not include VHB CISBO services, i.e. CISBO services with bandwidth above 1Gbit/s and WDM services of all bandwidths, and it does not include the CBDs of Birmingham, Glasgow and Leeds. It follows that it is not appropriate for us to require BT to provide Ethernet services with speeds above 1Gbit/s and/or WDM services.
- 4.6 In applying the temporary remedies to Lower Bandwidth CISBO services, we do not consider that any other adjustments are required in light of the fact that we are not concluding on SMP in the market comprising VHB CISBO services and in the CBDs of Birmingham, Glasgow and Leeds. Therefore, we have decided that BT should be subject to an obligation requiring it to provide the following types of wholesale services:
 - a) a requirement to provide disaggregated wholesale Ethernet access and backhaul segments;

- b) a requirement to provide short range end-to-end wholesale Ethernet services.
- 4.7 In the absence of regulation, BT would have an incentive to withdraw or to no longer supply these products. CPs have developed their business models around the availability of these products. It would be disruptive to CPs and would reduce competition if they were no longer available. Ofcom considers that these competition problems could arise at any time after revocation of the 2016 BCMR Statement regulation, and could have an adverse effect on competition immediately, such that there is an urgent need to impose these remedies to safeguard competition and to protect the interests of consumers.
- 4.8 For the reasons set out above and summarised in paragraphs 10.32 to 10.43, Volume 1, of the 2016 BCMR Statement, we are satisfied that the conditions meet the relevant tests set out in the Act.

Classification of circuits that cross boundaries between geographic markets

- 4.9 We have decided that wholesale CISBO circuits should be classified in respect of the CLA, LP and RoUK excluding the Five CBDs geographic markets in the same manner, taking account of the location and nature of each of the end points of the circuit, as specified in the 2016 BCMR Statement.¹¹⁵ Given that in this statement we have defined the CBDs as separate geographic markets, we have used the same approach to classification as follows:
- a) Wholesale end-to-end services (i.e. circuits between two end-user sites) – These services should be classified as inside a given CBD area only if both end-users sites are in the relevant CBD. Circuits with one end in the RoUK and the other end in a given CBD should be classified as RoUK circuits.¹¹⁶
 - b) Other circuits (i.e. circuits between an end-user's site and a network node or between network nodes) – These circuits should be classified as being in the geographic market corresponding to the location of the end-user's site or, in the case of backhaul circuits, corresponding to the location of the remote end of the backhaul circuit.

Excess Construction Charges

- 4.10 Excess Construction Charges (ECCs) are levied by BT to recover the costs of customer-specific network construction work in association with a new connection. ECCs cover activities such as a site survey, the installation of new duct, new blown fibre and drilling through walls.¹¹⁷ ECCs are charged in addition to normal connection charges.

¹¹⁵ 2016 BCMR Statement, paragraphs 10.52-10.53.

¹¹⁶ We limit wholesale end-to-end services to 25km, therefore there will not be any end-to-end services between CBDs.

¹¹⁷ Only those elements that are unique to a single end-user site are chargeable as ECCs. Construction work that forms part of Openreach's common network (i.e. can serve more than one end-user site) falls outside the scope of ECCs. ECCs are also incurred if the customer requests a method of delivery which is not Openreach's first choice or if an additional circuit is required for resilience purposes.

4.11 We have decided to maintain the position set out in our 2016 BCMR Statement, which is that BT should be given flexibility to continue to offer an ECC exemption. BT may therefore change the balancing charge of £548, but not the threshold charge which exempts the first £2,800 of new provisions of EAD services. Our reasons for this are as explained at paragraphs 10.103 to 10.11 of the 2016 BCMR Statement.

Requirement to provide specific types of interconnection services

4.12 In section 3 we set out our general remedies for the Lower Bandwidth CISBO markets in which we have found BT has SMP and explain that these remedies would also apply to the interconnection and accommodation services that BT provides in connection with wholesale services provided in these markets. Consequently, BT would be required to meet reasonable requests for interconnection and accommodation services under the general network access obligation that we are imposing for this market.

4.13 We have decided to impose the same specific interconnection services for Lower Bandwidth CISBO services in the markets in which we have found BT has SMP as we imposed in relation to the CISBO markets in the 2016 BCMR Statement:

- a) Customer Sited Handover (CSH); and
- b) In Building Handover (IBH).

4.14 Our reasons for imposing these remedies are as set out in paragraphs 12.7 to 12.30 of the 2016 BCMR Statement (insofar as relevant to CISBO services).

4.15 We consider that there is an urgent need to regulate the provision of the specific interconnection services because otherwise BT would have an incentive to refuse to supply or to supply in a discriminatory manner.

4.16 For the reasons set out above and summarised in paragraphs 12.59 to 12.63, Volume 1, of the 2016 BCMR Statement, we are satisfied that the conditions meet the relevant tests set out in the Act.

5. Charge control

Introduction

- 5.1 This section sets out our decision that it is necessary and appropriate in the period before March 2019 to impose charge controls on Ethernet services with bandwidths of 1Gbit/s and below provided in the markets in which we have found BT to have SMP.
- 5.2 We are concerned that, in the absence of appropriate *ex ante* regulation, BT's SMP means that there is a relevant risk of adverse effects arising from it setting and maintaining some or all charges for Ethernet services with bandwidths of 1Gbit/s and below at an excessively high level.
- 5.3 We have therefore decided to impose charge controls on Ethernet services with bandwidths of 1Gbit/s and below outside of the CLA and the CBDs of Birmingham, Glasgow and Leeds, as set out in Table 5.1.

Table 5.1: Ethernet basket and sub-baskets and sub-caps

Baskets	BT service name	Level of control
Ethernet basket		CPI-13.50%
1Gbit/s EAD sub-basket	1Gbit/s EAD and EAD LA ¹¹⁸	CPI-6.75%
Main link sub-basket	EAD Main link, WES/WEES, BNS, ONBS and BES Main Link charges	CPI-6.75%
Interconnection services and Cablelink sub-basket	Bulk Transport Link (BTL), Cablelink	CPI-13.50%
Ethernet rental sub-basket	EAD and EBD rental charges with an associated connection charge	CPI-CPI
Sub-cap on all charges	All Ethernet Services ¹¹⁹	CPI-CPI

Source: Ofcom.

- 5.4 Table 5.2 below sets out the charge controls for accommodation, ECCs and TRC services we are imposing.

¹¹⁸ EAD stands for Ethernet Access Direct. This includes all variants of 1Gbit/s EAD and EAD LA services.

¹¹⁹ Except charges that fall within the Ethernet rental sub-basket.

Table 5.2 Accommodation, ECCs and TRCs

Baskets	BT service name	Period 1 control (1 December 2017 to 31 March 2018)	Period 2 control (1 April 2018 to 31 March 2019)
Accommodation services i.e. to rent space in BT exchanges			
Access Locate Administration Fee	Access Locate Administration Fee ¹²⁰	CPI-0%	CPI-0%
Excess Construction Charges (ECCs)			
Contractor ECCs	Construction activities that Openreach provides through an external contractor	Basis of charges obligation ¹²¹	Basis of charges obligation
Direct ECCs: Blown fibre	Fibre installation using blown fibre technique	CPI-18.75%	CPI-18.75%
Direct ECCs: Cable delivery	Installation of copper or fibre cables	CPI+17.25%	CPI+17.25%
Direct ECCs: Blown fibre tubing	Installation of blown fibre tubing in ducts	CPI+8.75%	CPI+8.75%
Direct ECCs: Internal cabling	Internal cabling work	CPI+11.75%	CPI+11.75%
Direct ECCs: Survey	Survey fees and planning charges	CPI-3.25%	CPI-3.25%
Ethernet Time Related Charges (TRCs)			
All relevant Ethernet TRCs	All relevant Ethernet TRCs ¹²²	-0.15%	-0.15%

Source: Ofcom.

5.5 We are publishing a non-confidential version of the modelling supporting these results alongside this statement.

2016 BCMR Statement

5.6 In the 2016 BCMR Statement we identified a number of competition concerns that we considered were associated with our SMP findings in the CISBO services in the LP and the RoUK as defined in that review. We imposed the following price control obligations, that formed the 2016 Leased Lines Charge Control (2016 LLCC):

¹²⁰ We have decided to treat the Ethernet accommodation products that overlap with LLU Co-Mingling products the same as the LLU Co-Mingling products. The June 2014 FAMR Statement's charge control for the Co-Mingling (New Provides and Rentals) basket continues to apply regardless of whether they are used by CPs for leased line products or for LLU.

¹²¹ Contractor ECCs are based on the charge paid by BT to contractor(s), plus BT's relevant incremental costs, plus an appropriate mark-up for common costs.

¹²² 2016 BCMR Statement, Volume 1, Table 8.3, noting that as explained in paragraph 8.99 we applied a simple controlling percentage change rather than a CPI-X control.

- a) the 'Ethernet charge controls' on Ethernet services with bandwidth of 1Gbit/s and below and on accommodation, excess construction charges (ECCs)¹²³ and time related charges (TRCs) provided in connection with those Ethernet services;¹²⁴
- b) a safeguard cap on Ethernet services with bandwidths above 1Gbit/s and WDM services with bandwidths above 1Gbit/s, and charge controls on accommodation, ECCs and TRCs provided in connection with those very high bandwidth CISBO services;
- c) a basis of charges obligation in respect of dark fibre access and charge controls on accommodation, ECCs and TRCs provided in connection with dark fibre access.¹²⁵

5.7 Given that, for the purposes of imposing the temporary conditions, Ofcom has not made an SMP finding in respect of BT's provision of VHB CISBO services, it would not be appropriate to impose any price control obligations in respect of these services. Similarly, we are not imposing a temporary dark fibre remedy as part of this statement, and are consulting on this separately. Consequently, the discussion that follows focusses solely on updating the charge controls on Ethernet services with bandwidth of 1Gbit/s and below, and services provided in connection with them.

Our decision on whether to impose a charge control on Ethernet services with bandwidth of 1Gbit/s and below

5.8 As set out in section 2, we have concluded that BT has SMP in the Lower Bandwidth CISBO markets in the LP, the CBDs of each of Bristol and Manchester, and the RoUK excluding the Five CBDs. Further, and as explained in section 3, we have decided that in order to address BT's SMP it must (amongst other things) provide network access on reasonable request in the markets where we found BT to have SMP in this statement. We have identified two further competition concerns in relation to BT's charges for services in these markets.

5.9 First, in the absence of regulation BT has an incentive and the ability to set excessive charges. In reaching this view our reasoning is the same as that set out in the 2016 BCMR Statement.¹²⁶ We have also had regard to the current level of charges, specifically the fact that although BT has reduced its charges in 2017/18 further cuts would be necessary for it to have complied with the 2016 LLCC.

5.10 In the 2016 BCMR we chose to address this concern by imposing a price control remedy on Lower Bandwidth CISBO services in the LP and the RoUK (as defined in that statement) in the form of a charge control. We chose this over other types of control, such as a cost orientation obligation or a safeguard cap, on the basis of balancing regulatory objectives, including: preventing BT from setting excessive charges, promoting efficient and

¹²³ In the 2016 LLCC, we set charge controls on Direct ECCs and a basis of charges obligation on Contractor ECCs.

¹²⁴ The Ethernet charge control, in particular condition 10A.10, was subsequently modified in Annex 1 to the 2017 NDR Statement.

¹²⁵ The dark fibre basis of charges obligation was subsequently modified in Annex 1 to the 2017 NDR Statement.

¹²⁶ 2016 BCMR Statement, Volume 1, paragraphs 8.199 to 8.201.

sustainable competition in the delivery of leased line services, and encouraging investment and innovation.¹²⁷ This decision was not appealed.

- 5.11 Having now concluded that BT has SMP in the markets set out in section 2 above, we have considered how to remedy this and, in particular, whether lighter touch remedies might be appropriate in any of these markets. In doing so we have borne in mind the competitive conditions in each of these markets (as detailed in our SMP analysis in section 3) and the fact that in the BCMR 2013 we imposed a safeguard cap for Lower Bandwidth CISBO services in the (combined) CLA and LP area but that little additional infrastructure investment took place.¹²⁸
- 5.12 On the basis of the framework and reasoning set out in the BCMR 2016 we have decided that charge control obligations are necessary and appropriate in order to ensure that BT's charges for Lower Bandwidth CISBO services in the defined markets are set at a competitive level:
- a charge control on Ethernet services with bandwidths of 1Gbit/s and below; and
 - charge controls on each of accommodation, ECCs and TRCs provided in connection with those Ethernet services.
- 5.13 Second, in the absence of regulation, there is a relevant risk of adverse effects arising from BT imposing a price squeeze.
- 5.14 As in the 2016 BCMR Statement, we considered that the charge controls and non-discrimination obligations, as well as *ex post* competition law, are sufficient to address effectively the risk that BT may seek to impose a margin squeeze, or to otherwise act anti-competitively in setting its charges in the period until March 2019. In light of this, we consider that it would not be necessary and appropriate in the period until March 2019 to apply an additional obligation to set fair and reasonable charges whilst they are also subject to the charge controls. We have decided to require BT to charge fair and reasonable prices for any products which are provided in the SMP markets but not subject to the above charge controls.

Approach to setting charge controls for the purposes of temporary conditions

Use of the 2016 BCMR Statement as the starting point for charge control design

- 5.15 In the 2016 BCMR Statement we designed the Ethernet charge controls to take into account a range of considerations, and reflected stakeholder comments received during the consultation process. We considered that the final charge controls imposed in the 2016 BCMR Statement provided an appropriate way to address the competition concerns

¹²⁷ 2016 BCMR Statement, Volume 1, paragraphs 8.202 to 8.210 and Volume 2, paragraphs 9.52 to 9.91.

¹²⁸ 2016 BCMR Statement, Volume 1, Table 2.2 and paragraph 7.99.

identified, providing a reasonable trade-off between static and dynamic efficiency and benefiting consumers through the promotion of competition.

- 5.16 The following differences between the SMP findings and remedies in the 2016 BCMR Statement compared to these temporary conditions may affect the Ethernet charge controls:
- a) Geographic scope of SMP finding – as explained in section 2 we continue to find that BT has SMP in 1Gbit/s and below everywhere outside of the CLA with the exception of the CBDs of Birmingham, Leeds and Glasgow; and the definition of the CI Core differs to the finding in the 2016 BCMR Statement; and
 - b) Access remedies imposed – we have decided not to include a dark fibre remedy in this package of remedies, though we are consulting separately on adding a dark fibre remedy.
- 5.17 We consider that in the context of the Ethernet charge controls imposed in the 2016 BCMR Statement these differences are limited, and it would therefore be appropriate to impose the same form of Ethernet charge control (subject to the modifications set out further below) for the following reasons:
- the charge controls were set for the same services and largely the same geographic areas (subject to the exceptions explained above) that we are concerned with;
 - they covered the same forward-looking period as we are now concerned with (i.e. regulation until 31 March 2019);
 - they were subject to extensive consultation;
 - they were upheld on appeal.¹²⁹

Form of charge control

- 5.18 As a consequence of the above, we consider that the reasoning explained in the 2016 BCMR Statement in relation to the form of the charge control as an inflation-X price cap, with CPI as the relevant inflation index is equally applicable in the present circumstances.¹³⁰

Duration of charge control

- 5.19 In section 1 we set out our decision to impose the temporary conditions for a period of 16 months to cover the remainder of the BCMR 2016 control period (until March 2019). We consider it appropriate to replicate as much as possible the compliance periods of the BCMR 2016 for the purposes of the temporary charge control.

¹²⁹ The Ethernet charge control and the cap on the dark fibre price set in the 2016 BCMR Statement were appealed by CityFibre. The Competition and Markets Authority (CMA), who heard CityFibre's appeal, found in Ofcom's favour. The CMA determined that Ofcom made no error in setting the Ethernet charge control and the cap on the dark fibre price. The CMA's Final Determination is available at

http://www.catribunal.org.uk/files/1259;1261_BCMR_CMA_Final_Determination_100417.pdf.

¹³⁰ 2016 BCMR Statement, Volume 2, Section 3.

- 5.20 In 2016 BCMR Statement we decided to assess compliance on an annual basis with Year 2 and Year 3 corresponding to financial years 2017/18 and 2018/19 respectively. As we are already eight months through 2017/18, we have decided to assess compliance for the purposes of the charge control on the basis of the following consecutive periods:
- **Period 1** – from 1 December 2017 until 31 March 2018, which corresponds to the remaining four months of Year 2 of the LLCC 2016; and
 - **Period 2** – from 1 April 2018 until 31 March 2019, which corresponds to the full Year 3 of the LLCC 2016.
- 5.21 We consider that setting charge control periods in this way is appropriate given current market circumstances, because BT's current charges are higher than expected under the Ethernet charge control in the LLCC 2016. An initial four-month period can help address this issue by providing certainty that prices will reduce quickly (compared to a longer period in which BT would have more flexibility over the timing of its price cuts). In addition, these charge control periods also have the practical advantage – for example, for assessing compliance – of aligning Period 2 with BT's 2018/19 financial year.

Use of the 2016 LLCC as the starting point for cost modelling

- 5.22 In terms of the starting point for the detailed cost modelling to underpin the new Ethernet charge control, the 2016 LLCC Model was developed to forecast costs and revenues during the period of the temporary conditions (i.e. until the March 2019). The analysis contained in the 2016 LLCC was the product of a lengthy cost modelling exercise and benefited from wide-ranging data gathered under our formal powers and an extensive consultation process.¹³¹
- 5.23 We have therefore considered whether it would be necessary and appropriate to update the modelling of the Ethernet charge control, and in particular whether updates other than those necessary to reflect the different geographic market definition and the implications of the decision not to include a dark fibre remedy at this time are necessary.
- 5.24 To inform this decision we have tested the 2016 LLCC modelling of the Ethernet basket by comparing the forecast return on capital employed (ROCE) for 2016/17 and forecast volumes over the period 2014/15 to 2016/17 against outturn data in BT's publicly available 2017 RFS.¹³² The difference in ROCE is less than 0.5 percentage points,¹³³ and the difference

¹³¹ This included consultations on the leased lines charge control in June 2015 (see <https://www.ofcom.org.uk/consultations-and-statements/category-2/llcc-dark-fibre>) and November 2015 (see <https://www.ofcom.org.uk/consultations-and-statements/category-3/bcmr-update-proposed-leased-lines-charge-controls>).

¹³² 2017 BT Regulatory Financial Statements:

<http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2017/index.htm>.

¹³³ We compared ROCEs for Total Ethernet Basket Services in the CISBO Rest of UK and London Periphery markets as defined in BT's 2017 RFS. The 2016 LLCC Model forecast returns for these series would be 15.4% in 2016/17. This was obtained by turning off the MEA assumption. The RFS returns of c15.5% were generated using cost and revenue information that BT published within its 2017 RFS. Revenues and costs were taken from pages 46 and 58, costs by service

in annual volume growth rates is also less than 0.5 percentage points.¹³⁴ We consider that these comparisons show that the 2016 LLCC has performed well, bearing in mind the inherent uncertainty involved in making forecasts and some difficulties in making these comparisons on a like-for-like basis.

- 5.25 As a result, we consider that using the 2016 LLCC Model as the starting point for modelling the temporary period is appropriate. We have also considered whether it would be appropriate to update individual input parameters in the model. However, given that the tests explained above suggest that the model is performing reasonably overall, we do not consider this necessary, and note that the urgent need we have identified for the temporary conditions means that we do not consider it feasible to undertake cost modelling afresh within an acceptable time frame.

2017 NDR Statement

- 5.26 In the 2017 NDR Statement, we set out amendments to the calculation of the prices that BT charges for dark fibre services and for charge controlled Ethernet services. The need for the amendments arose from an appeal against the 2016 BCMR Statement by TalkTalk. The Competition and Markets Authority found that Ofcom was wrong to use a measure of BT's non-domestic rates (NDR) costs as part of the calculation for the price of dark fibre products. As a consequence of our amendments, we adjusted the Ethernet basket by uplifting costs in the final year (2018/19) by [X], reducing the value of X in 2018/19 from -13.50% to -12.75%.
- 5.27 For the temporary conditions, we have set the level of the control taking into account the [X] NDR cost uplift in 2018/19, resulting in a +0.50 percentage point impact on the Ethernet basket X (i.e. the Ethernet X becomes less negative by 0.50 percentage points).¹³⁵

Geographic scope of temporary conditions charge control

- 5.28 As set out in section 2, we have found BT to have SMP in a narrower geographic area relative to the finding in the 2016 BCMR Statement as for the purposes of this statement we have made different SMP findings in relation to:
- The competitive core; and
 - The central business districts (CBDs) of Birmingham, Glasgow and Leeds.

and component from pages 48 to 50 and 60 to 62, and costs by component from Appendix 1.1, pages 110-111. We verified the RFS returns we calculated using more disaggregated information privately reported to us by BT.

¹³⁴ We compared overall volume growth across connections, rentals and Main Link services within the Ethernet basket. This overall volume growth was calculated from revenue growth using constant prices as assumed within the 2016 LLCC Model. The RFS growth rates were generated using the same pricing assumptions. The 2015/16 RFS growth rate was generated from 2015/16 and restated 2014/15 volumes for 1Gbit/s and below services in the AISBO non-WECLA as reported in BT's 2016 RFS. The RFS growth rate in 2016/17 was generated from 2016/17 and restated 2015/16 volumes for Ethernet Basket services in the CISBO RoUK and LP markets as reported in BT's 2017 RFS. The comparison was limited to services for which the RFS reports volumes, but this covered 97-98% of the relevant LLCC revenues.

¹³⁵ In this document, we present the individual impact of each assumption iteratively: the +0.50% point NDR Statement adjustment impact is for a two period X and compared to the counterfactual of the 2016 LLCC model assumptions.

5.29 Given these changes, we consider it necessary and appropriate to update the 2016 LLCC to reflect the revised geographic boundary for the Lower Bandwidth CISBO markets where we have identified SMP.

The competitive core

5.30 Revising the scope of the competitive core results in some additional circuits now being outside of the regulated market, and so no longer subject to the charge control. As set out in section 2, our revised competitive core includes 107 local exchanges. This compares to 34 local exchanges identified as within the competitive core in the 2016 BCMR. Based on our network reach analysis, we have estimated that [X] Lower Bandwidth CISBO circuits (about 1% of BT's UK total) now fall within the competitive core, as set out in Table 5.3 below. This compares to [X] circuits under our definition of the competitive core in the 2016 BCMR Statement.

Table 5.3: Revised estimate of BT Low Bandwidth CISBO circuit volumes in the competitive core

Bandwidth	Number of circuits
10Mbit/s	[X]
100Mbit/s	[X]
1000Mbit/s	[X]
Total	[X]

Source: Ofcom analysis based on BT s135 data.

5.31 We have removed these circuits from the Ethernet basket when calculating the value of X, because the controls should be set to reflect the costs and revenues of services which are directly controlled by the basket. In our modelling, we have implemented this change by removing these circuit from our volume forecasts. In the CPI-X model, consistent with the 2016 LLCC this then flows through to our revenue and cost forecasts as follows:¹³⁶

- Unit component costs are forecast in each year until the end of the control (2018/19) using volume forecasts pre-adjustments (i.e. including competitive core volumes). This is to match the volumes with BT's base year (2014/15) costs which include circuits in the competitive core.
- Unit service cost forecasts are calculated by multiplying unit component cost forecasts by usage factors.
- Total service cost forecasts are then calculated by multiplying unit service cost forecasts by volume forecasts post-adjustments (i.e. excluding competitive core volumes).
- Similarly, total service revenue forecasts are calculated by multiplying the relevant prices by volume forecasts post-adjustments (i.e. excluding competitive core volumes).

5.32 We have found that the removal of the additional circuits identified as falling within the competitive core has no impact on the rounded value of X.

Birmingham, Glasgow and Leeds CBDs

¹³⁶ For example, see discussion of CI Core geographic adjustment in 2016 BCMR Final Statement, Annex 26, paragraphs A26.115 to A26.116: https://www.ofcom.org.uk/_data/assets/pdf_file/0024/54645/final-annexes-26-27.pdf.

5.33 Revising the CBDs where we find that BT holds SMP also results in some additional circuits no longer being subject to the charge control. As set out in Section 2, we have not found for the purposes of this statement that BT holds SMP in the CBDs of Birmingham, Glasgow and Leeds. Based on our network reach analysis, we have estimated that [X] circuits (about 2% of BT's UK Low Bandwidth CISBO circuit volumes) fall within the CBDs of Birmingham, Glasgow and Leeds, as set out in Table 5.4 below. In calculating this we have excluded EFM volumes because they are not charge controlled.

Table 5.4: Revised estimate of BT Low Bandwidth CISBO circuit volumes in the Birmingham, Glasgow and Leeds CBDs (circuits)

Bandwidth	Birmingham	Glasgow	Leeds	Less EFM	Total CBD (excl. EFM)	% of BT's UK Low Bandwidth CISBO
10Mbit/s	[X]	[X]	[X]	[X]	[X]	[X]
100Mbit/s	[X]	[X]	[X]	-	[X]	[X]
1000Mbit/s	[X]	[X]	[X]	-	[X]	[X]
Main Link (fibre km) ¹³⁷	[X]	[X]	[X]	-	[X]	[X]

Source: Ofcom analysis based on BT s135 data.

5.34 As with the additional competitive core volumes, we have removed the circuits falling within the CBDs of Birmingham, Glasgow and Leeds from the Ethernet basket when calculating the value of X. In our modelling, we have implemented the removal of these CBD circuits using the approach set out above for the competitive core circuits – we used volumes pre-adjustments to calculate unit component costs and volumes post-adjustments¹³⁸ to calculate total service costs and revenues. We found that the removal of the volume of circuits within these areas had no impact on the rounded value of X.

5.35 We have also taken into account that the circuits in the Birmingham, Glasgow and Leeds CBDs are likely to have lower unit costs than the average unit costs in the RoUK and LP areas (RoUK+LP area) as defined in the 2016 BCMR Statement, upon which the 2016 LLCC was set. This is due to differences in cable costs:

- a) **Greater fibre density:** densely populated areas, such as the CBDs, are likely to be served by larger cables which carry more fibres – for example, for the purposes of the 2016 BCMR Statement, BT provided data showing that the unit costs of access fibre in the CLA were about 20% lower than in the LP, which it attributed to there being greater economies of scale in the CLA “as a result of larger cables serving more customers per fibre segment”.¹³⁹

¹³⁷ We derived the Birmingham, Glasgow and Leeds CBD Main Link volumes by applying the ratio of Main Link volumes to rental volumes in the West, East and Central London (WECLA) area in 2015/16 as reported in the 2016 RFS (page 81) to the Birmingham, Glasgow and Leeds CBD rental volumes.

¹³⁸ Volumes post-adjustments meaning volumes excluding circuits in Birmingham, Glasgow and Leeds CBDs.

¹³⁹ BT response to 33rd s135 notice dated 19 February 2016, question A1. See 2016 BCMR Statement, paragraphs A26.106 to A26.116: https://www.ofcom.org.uk/data/assets/pdf_file/0024/54645/final-annexes-26-27.pdf.

- b) **Shorter cable lengths:** densely populated urban areas, such as these CBDs, are likely to have shorter cable lengths – for example, for the purposes of the 2013 LLCC, BT provided data showing that the lengths of access fibre cables are shorter in the WECLA, compared to the national average.¹⁴⁰
- 5.36 The BT cost data used in the 2016 LLCC Model is averaged across the total RoUK+LP area and it is not possible to disaggregate it into narrower geographic areas, such as the CBDs of Birmingham, Glasgow and Leeds. We have therefore decided to adjust the averaged RoUK+LP area cost data in the 2016 LLCC Model by estimating the unit cost difference between the CBDs of Birmingham, Glasgow and Leeds and the total RoUK+LP area. We consider that this adjustment is necessary to provide a more accurate picture of the costs in the newly defined charge controlled area.
- 5.37 We have estimated the unit cost difference between the Birmingham, Glasgow and Leeds CBD areas and the RoUK+LP area on the basis of the unit cost difference between the West, East and Central London (WECLA) and the remaining part of the UK, which is referred to as Non-WECLA in BT’s 2016 RFS. We consider that the unit cost differences between the WECLA and Non-WECLA provide a suitable proxy for our purposes because the WECLA is similar to the CBDs of Birmingham, Glasgow and Leeds in that it is a densely populated urban area where we would expect the economic circumstances to be similar, for example for cable costs. In addition, the WECLA is a relatively large area, accounting for c.10-15% of BT’s UK Low Bandwidth CISBO volumes, which provides comfort that the cost information BT holds for this area is robust. Table 5.5 below sets out the 2015/16 unit costs for Low Bandwidth CISBO services in the Non-WECLA and WECLA markets, as reported in BT’s 2016 RFS.¹⁴¹

Table 5.5: 2015/16 Non-WECLA and WECLA unit costs for Low Bandwidth CISBO services (£ per annum)¹⁴²

	Non-WECLA	WECLA	Difference
EAD 10Mbps Rentals	2,529	1,546	-39%
EAD 100Mbps Rentals	2,775	1,722	-38%
EAD 1Gbps Rentals	2,660	1,691	-36%
EAD LA 10Mbps Rentals	1,635	1,084	-34%
EAD LA 100Mbps Rentals	1,673	1,147	-31%
EAD LA 1Gbps Rentals	1,812	1,245	-31%
EBD 1Gbps Rentals	7,006	6,584	-6%
Ethernet Main Link	216	89	-59%

Source: BT’s 2016 RFS.

¹⁴⁰ BT response to 2nd 2013 LLCC s135 on 27 April 2012, explanatory note entitled “2ndS135method270412.pdf”. See 2013 BCMR Statement, paragraphs 20.255 to 20.266:

https://www.ofcom.org.uk/data/assets/pdf_file/0019/63028/sections17-24.pdf.

¹⁴¹ In contrast, the London Periphery which BT has reported costs for in the 2017 RFS may not be a suitable comparator as it encompasses less densely populated areas (relative to the CLA) and counts for a considerably smaller share of BT’s Low Bandwidth CISBO volumes (less than 5%).

¹⁴² See 2016 BT RFS, Section 8.7.1 AISBO Non-WECLA Summary 2016 on page 73 and Section 8.8.1 AISBO WECLA Summary 2016.

5.38 We have calculated the unit cost uplift to convert costs for the entire RoUK+LP area (as per the 2016 LLCC Model) into costs for the RoUK+LP area excluding the CBDs of Birmingham, Glasgow and Leeds by weighting the Non-WECLA to WECLA unit cost differences (set out in Table 5.5 above) by the proportion of affected circuits (set out in Table 5.4 above). Table 5.6 below sets out the resulting uplifts we applied to the 2016 LLCC Model cost forecasts.

Table 5.6: Ofcom calculation of cost uplifts to account for removal of the Birmingham, Glasgow and Leeds CBDs

	WECLA vs Non-WECLA difference	Birmingham, Glasgow and Leeds CBDs as % of BT's UK Low Bandwidth CISBO	Calculated uplift
EAD 10Mbps Rentals	-39%	[X]	[X]
EAD 100Mbps Rentals	-38%	[X]	[X]
EAD 1Gbps Rentals	-36%	[X]	[X]
EAD LA 10Mbps Rentals	-34%	[X]	[X]
EAD LA 100Mbps Rentals	-31%	[X]	[X]
EAD LA 1Gbps Rentals	-31%	[X]	[X]
EBD 1Gbps Rentals	-6%	[X]	[X]
Ethernet Main Link	-59%	[X]	[X]

Source: Ofcom analysis.

5.39 Including these cost uplifts to account for the removal of the CBDs of Birmingham, Glasgow and Leeds, increases forecast costs in 2018/19 by c.£2.5m, resulting in a +0.25 percentage point impact on the Ethernet basket X (i.e. the Ethernet X becomes less negative by 0.25 percentage points).¹⁴³ We have carried out sensitivity testing on the assumed unit cost differentials by assessing the impact of increasing and decreasing the differentials by 10%. We found that the impact on costs under these scenarios was not sufficiently different to our base case to have a different impact on the rounded value of X (i.e. as with the base case, there was +0.25 percentage point impact on the Ethernet basket X under the high and low scenarios). This is not surprising given the relatively low volumes of circuits that are affected by the removal of the CBDs of Birmingham, Glasgow and Leeds from the charge control.

Impact of dark fibre

5.40 Whether, when and how extensively dark fibre is present affects the costs in the Ethernet charge control, and in the 2016 BCMR Statement we described how we had accounted for this.¹⁴⁴ This included assumptions relating to the launch of dark fibre on 1 October 2017 and the forecast service volumes thereafter. However, BT did not launch dark fibre on 1

¹⁴³ In this document, we present the individual impact of each assumption iteratively: the +0.25% point geographic cost uplift impact is for a two period X and compared to the counterfactual of the 2016 LLCC model assumptions + the NDR adjustment.

¹⁴⁴ See 2016 BCMR Statement, Annex 33. The dark fibre remedy affects the Ethernet control through its impact on the volume mix of active circuits included in the basket and the cost uplifts included to ensure BT has the opportunity to recover efficiently incurred costs.

October 2017,¹⁴⁵ and alongside this statement we are consulting on its introduction from 1 April 2018.

- 5.41 In light of this we have considered how to treat dark fibre for the purposes of the temporary conditions, and have identified three options:
- a) Maintain the assumptions from the 2016 BCMR Statement: Continuing to use our previous assumptions would have the benefit of minimising the need for changes to the 2016 LLCC. However, this would effectively entail assuming that BT has launched dark fibre when it has not, and using a set of forecast volumes that would not be consistent with those in our 2017 Dark Fibre Consultation and would require revision if we go ahead with our proposals to introduce dark fibre. Using these assumptions, and taking into account the NDR adjustment and the geographic adjustments, would result in a temporary control of CPI-12.75% in each of Period 1 and Period 2.
 - b) Remove the impact of dark fibre from the temporary conditions: assuming no dark fibre would avoid the need to forecast dark fibre volumes and would result in a temporary control of CPI-14.50% in each of Period 1 and Period 2. However, if we go ahead with our proposals to introduce dark fibre, the Period 2 control would need to be revised to CPI-12.50%.
 - c) Align the assumptions with those in the 2017 Dark Fibre Consultation: this would reflect our current view of likely dark fibre volumes and necessary cost uplifts and would mean a temporary control of CPI-13.50% in each of Period 1 and Period 2. Should our dark fibre proposals change following consultation we would need to modify the control. For example, if we do not proceed with our proposals to introduce dark fibre in Spring 2018, the Period 2 control would need to be revised to CPI-15.75%.
- 5.42 On balance we consider the third of these options to be preferable. The first two would require certain modification to the temporary charge control on the basis of our current plans in the 2017 Dark Fibre Consultation. While this is also possible under the third option, as we are at consultation stage, modification is likely to have a smaller impact and it is possible that it may not be necessary at all.
- 5.43 We have therefore decided to maintain but modify the dark fibre adjustments for the purposes of setting charge controls and to align them with our proposals in the 2017 Dark Fibre Consultation. The dark fibre adjustments affect the Ethernet charge controls through the effect on revenues and costs of the expected migration of active circuit volumes to dark fibre during the control period and uplifts to 2018/19 forecast costs to provide BT with the opportunity to recover its efficiently incurred costs when such migration occurs.
- 5.44 As set out in the 2017 Dark Fibre Consultation, we have revised downwards our forecast of dark fibre volumes in light of the timing and expected usage of the remedy. This increases the number of EAD 1Gbit/s circuits in the basket by c.4,000 in 2018/19, resulting in the

¹⁴⁵ See <https://www.openreach.co.uk/org/home/updates/briefings/ethernet-services-briefings/ethernet-services-briefings-articles/eth02817.do>.

difference between forecast revenues and cost for the Ethernet basket increasing by c.£10m in 2018/19. In the 2017 Dark Fibre Consultation we also propose various changes to the 2018/19 cost uplifts:

- **Stranded assets uplift:** We propose a revised uplift of £0.1m. This is lower than the uplift included in the 2016 BCMR Statement (£0.7m) because of the effect of lower volumes of active circuits migrating to dark fibre.
- **Implementation costs uplift:** We propose to continue to include the same allowance of £[redacted] as BT has already incurred the majority of development costs.
- **Common cost uplift:** We propose to not include a common cost uplift because we expect the use of dark fibre to be limited to speeds of 1Gbit/s (i.e. there would be no cannibalisation of VHB active circuits which make higher contributions to common costs) – as set out in the 2017 Dark Fibre Consultation, BT will have the choice to prevent the use of dark fibre above 1Gbit/s.

5.45 As set out above, using these assumptions results in a temporary control of CPI-13.50% in each of Period 1 and Period 2, which is 0.75 percentage points more negative than if we were to retain the 2016 BCMR Statement assumptions (Option 1).¹⁴⁶ As set out in the 2017 Dark Fibre Consultation, the Ethernet basket X becomes more negative under our new dark fibre proposals because: (i) our updated dark fibre volume forecasts result in additional 1Gbit/s services being included in the basket – BT earns higher margins over FAC on 1Gbit/s services than on other services in the Ethernet basket; and (ii) the updated 2018/19 cost uplifts total £[redacted] which is lower than the £[redacted] included in the 2016 BCMR Statement.

Charge control for Ethernet services with bandwidth of 1Gbit/s and below

5.46 In this sub-section we set out our decisions on the detailed design of the temporary charge controls which we are imposing as follows:

- a) Glidepath for the Ethernet basket;
- b) Sub-basket and sub-cap constraints; and
- c) Implementation of the controls.

Glidepath for the Ethernet basket

5.47 On the basis of the reasoning set out in the 2016 BCMR Statement¹⁴⁷ we have decided to maintain the approach of implementing a single charge control basket covering Ethernet services up to and including 1Gbit/s outside the CLA and excluding the CBDs of

¹⁴⁶ In this document, we present the individual impact of each assumption iteratively: the -0.75% point dark fibre volumes and cost uplifts impact is for a two period X and compared to the counterfactual of the 2016 LLCC model assumptions + the NDR adjustment + the geographic cost uplift.

¹⁴⁷ 2016 BCMR Statement, Volume 2, paragraphs 5.21-5.47.

Birmingham, Leeds and Glasgow (the Ethernet basket). Having established this we need to decide on how to align prices with forecast efficient costs by the end of the control period in a way that best meets our objectives.

Choice between glidepath and one-off adjustment

5.48 When we set charge controls our aim is to bring revenues into line with forecast efficient costs (including a return on capital) by the end of the control period. As we explained in the 2016 BCMR Statement, we can close any gap between revenues and costs using a glidepath, a one-off starting charge adjustment (SCA), or a combination of the two. In the case of the Ethernet basket in the 2016 LLCC we adopted the latter approach, using an SCA of -12% and a basket X of -13.50% for each of the remaining three years.¹⁴⁸

5.49 As set out in the 2016 BCMR Statement, where we are replacing existing controls we have typically had a preference to close any gap between charges and costs using glide paths, or a combination of some limited one-off adjustments with glide paths, rather than relying heavily or exclusively on one-off adjustments.¹⁴⁹ This is for two main reasons:

- **Productive efficiency:** a glidepath allows the firm to retain the benefits of unit cost reductions beyond those forecast when setting the control for longer than one-off adjustments. As a consequence, the use of a glidepath gives BT better incentives to pursue improvements in productive efficiency and/or grow volumes¹⁵⁰ than SCAs.¹⁵¹
- **Dynamic efficiency:** a glidepath avoids discontinuities in charges over time and leads to a more stable and predictable background against which investment and other decisions may be taken. For example, if telecoms providers enter into a three-year contract then adjusting charges via a glidepath allows providers time to restructure their contracts with end-users as the wholesale charges change more gradually. The use of glidepaths can therefore support improvements in dynamic efficiency.

5.50 However, the use of glidepaths typically allows prices to diverge from costs for longer. Therefore, for any particular charge control, the choice of whether to rely solely on a glidepath involves a regulatory judgement about the appropriate trade-off between the productive and dynamic efficiency benefits outlined above against the potential for consumer harm due to higher prices (i.e. allocative inefficiency).

5.51 As set out in the 2016 BCMR Statement, we considered that there are two types of circumstances where one-off SCAs may be appropriate:¹⁵²

¹⁴⁸ 2016 BCMR Statement, Volume 2, Table 1.1. Note the final year X was amended to -12.75% in the 2017 NDR Statement.

¹⁴⁹ 2016 BCMR Statement, Volume 2, paragraphs 4.88-4.92.

¹⁵⁰ In the presence of fixed costs the firm can reduce unit costs by pursuing volume growth.

¹⁵¹ These better incentives can be of particular importance where improvements could be made nearer the end of the control period. In such cases, the use of glide paths reduces the firm's incentives to delay efficiency improvements or pursue additional volumes until the beginning of the next control period because, even if improvements are made at the end of the previous control period, the firm retains (at least some of) the profit benefit associated with the improvement through the following control period

¹⁵² 2016 BCMR Statement, Volume 2, paragraphs 4.93-4.121.

- **Distorted pricing signals:** where the risk to economic efficiency or competition from distorted pricing signals is particularly significant.
- **Significant price/cost differential:** where prices are significantly above or below cost for reasons other than efficiency or volume growth.¹⁵³

5.52 Hence, in considering whether SCAs may be appropriate we have considered the current level of BT's Ethernet charges. In this regard, we note that BT appears to have complied with the first year of the Ethernet charge control (2016/17)¹⁵⁴ which required reductions of 12% (the SCA) and CPI-13.50%. In relation to the first eight months of the second year of the control (i.e. April 2017 to November 2017), we estimate that BT has reduced charges resulting in an approximately £ [X] of revenue reductions:¹⁵⁵

- a) Prior to 1 October 2017 BT made permanent cuts (in terms of required revenue reductions) focussed on WES/WEES and BES rental charges.¹⁵⁶ For EAD services, the only rental reductions made by BT were in line with the size of price reduction needed across all services, but these reductions were only made to Main Link Resilience Option 1 and Main Link Resilience Option 2 (which represent about 5% of basket revenues). There were also limited cuts to EAD connection charges, with many of the price cuts being below 1%, particularly those on higher revenue services.¹⁵⁷ We estimate that reductions to these services have reduced BT's revenues by around £ [X].
- b) BT did make some more significant reductions in the form of special offers (as time limited discounts¹⁵⁸) to connection charges for various EAD 100Mbit/s and EAD 1Gbit/s services at the start of Year 2. These reductions included the removal of all connection fees excluding the ECC fixed fee in some cases. In the period between April 2017 and November 2017,¹⁵⁹ we believe these services will have reduced BT's revenues by around £ [X].

¹⁵³ 2016 BCMR Statement, Volume 2, paragraph 4.94.

¹⁵⁴ BT, *Non-Confidential Compliance Statement - 2016/17*,

<http://www.btplc.com/Thegroup/RegulatoryandPublicAffairs/FinancialStatements/2017/LLCCexclTISBOCompliance201617.xlsx>.

¹⁵⁵ We have derived the revenue impacts using estimated 2016/17 revenues. The 2016/17 revenues have been calculated using accrued 2015/16 revenues and subtracting 2016/17 revenue reductions (including SCAs and glidepath reductions), both from the confidential compliance calculations BT submitted to Ofcom for 2016/17.

¹⁵⁶ See

<https://www.openreach.co.uk/orgp/home/products/pricing/loadProductPriceDetails.do?data=TG6A8jbarofqqfNi%2BYxJT%2BWX9RC8ygO7YK%2FGFXHQKYIMnGHsqdC0vzO163bJmh34D91D7M0q8u%2FIISgtlFAKw%3D%3D> for WES/WEES charges and

<https://www.openreach.co.uk/orgp/home/products/pricing/loadProductPriceDetails.do?data=Gb5DIOWDeWrdvLsdpeomsa0DzFBxAUIONmfpe3%2FG3G4IMnGHsqdC0vzO163bJmh34D91D7M0q8u%2FIISgtlFAKw%3D%3D> for BES charges.

¹⁵⁷ For example, many EAD connection charges were only cut by £10, with £7.50 of this decrease being accounted for by the change in the ECC balancing charge (also known as the EAD fixed fee). See

<https://www.openreach.co.uk/orgp/home/updates/briefings/ethernetservicesbriefings/ethernetservicesbriefingsarticles/eth02117.do>.

¹⁵⁸ We assume that these discounts will count towards charge control compliance.

¹⁵⁹ BT's special offer on EAD 1Gbit/s connection charges ended on 30th September 2017, see

<https://www.openreach.co.uk/orgp/home/products/pricing/loadProductPriceDetails.do?data=5uW5cDedIGJkun%2FLo2i67EBJYUki5wDWB%2BYrEWeC5armMlIOOG7b%2F12AmPFLBERe6YShZ82RgLOGLSH2e9%2Bmw%3D%3D>, but that for EAD 100Mbit/s connections has been extended to 31 March 2018, see

- c) BT also implemented a wide range of price cuts on 1 October 2017 to EAD 1Gbit/s and Main Link services, with reductions mostly between 10-17%. In the period between October 2017 and November 2017, we estimate these services will have reduced BT's revenues by around £ [redacted].

5.53 We note that the price cuts that BT has made in the first 8 months of Year 2 have resulted in a lower revenue reduction than the estimated £ [redacted] revenue reduction envisaged when the 2016 LLCC was set.¹⁶⁰ However, we consider that it would not be appropriate to align Ethernet revenues and forecast efficient costs using SCAs. This is for two reasons:

- a) First, it is unlikely that there is currently a risk of distorted price signals. In the 2016 BCMR Statement, we concluded that SCAs were not necessary to correct for distorted pricing signals as we found that there were no charges that were significantly above Distributed Stand Alone Cost (DSAC).¹⁶¹ In light of BT's price reductions in Year 1 and Year 2 of the Ethernet control, we consider it likely that this continues to be the case.
- b) Second, whilst in the 2016 BCMR Statement we concluded that charges were significantly above cost for reasons other than volume and efficiency,¹⁶² we consider that the current circumstances are different as charges have reduced due to BT's implementation of the SCA and Year 1 basket X, and cuts so far in Year 2. As noted above, we have also estimated outturn profitability for the Ethernet basket and found that return on capital on employed in 2016/17 was 15.7% – this is in line with our forecast of returns in this year in the 2016 LLCC Model.

5.54 We have therefore decided to rely on a glidepath approach for the temporary conditions.

Calculating the value of X

5.55 Consistent with the approach in the 2016 LLCC, we have calculated the value of X for the Ethernet basket by comparing forecast revenues with forecast efficient costs (including a return on capital) in the final year of the control (2018/19). As set out above, we have used the 2016 LLCC Model to generate these forecasts but have updated it to take into account the new findings on the geographic scope of the charge control and the dark fibre remedy, and have included the [redacted] NDR uplift to 2018/19 costs. In addition, in calculating the X, we have taken into account BT's apparent compliance in Year 1 of the Ethernet charge control and that the temporary charge control will apply over two subperiods (instead of the usual three).

<https://www.openreach.co.uk/orpg/home/products/pricing/loadProductPriceDetails.do?data=5uW5cDedIGJkun%2FLo2I67AL1r2J8Tjdb%2B2zQAfyo9P6rmMlIOOG7b%2F12AmPFLBERe6YShZ82RgLOGLsH2e9%2Bmw%3D%3D>

¹⁶⁰ £ [redacted] revenue reduction for first 8 months of second year of the 2016 LLCC Ethernet charge control calculated as follows:

- i. £ [redacted] = Forecast full year 2017/18 revenues on the basis of prices at the end of 2016/17 (i.e. assuming BT makes no price reductions in 2017/18).
- ii. £ [redacted] = Forecast full year 2017/18 revenues on the basis of prices that include the year two CPI-13.5% reduction.
- iii. £ [redacted] = Full year 2017/18 revenue reduction due to CPI-13.5% control (£ [redacted] minus £ [redacted]).
- iv. £ [redacted] = 8 month revenue reduction due to CPI-13.5% control (£ [redacted] * 8/12).

¹⁶¹ 2016 BCMR Statement, Volume 2, paragraphs 7.8-7.10.

¹⁶² 2016 BCMR Statement, Volume 2, paragraphs 7.42-7.45.

5.56 We calculate the X as follows:

a) $X = ((\text{Costs}_T / [\text{Price}_0 * \text{Volumes}_T])^{1/2} - 1) * (1 + \text{Inflation}_{\text{Avg}})$

b) Where:

c) Costs_T = Forecast costs at the end of the charge control (2018/19)

d) Price_0 = Service prices at the end of year 1 of the Ethernet charge control (2016/17)

e) Volumes_T = Service volumes at the end of the charge control

f) $\text{Inflation}_{\text{Avg}}$ = Geometric average of forecast inflation during the period of the temporary conditions

5.57 As in the 2016 LLCC, the term “* (1 + $\text{Inflation}_{\text{Avg}}$)” is applied when calculating the value of X to enable the resulting X value to be applied to prices as a CPI-X price cap. For $\text{Inflation}_{\text{Avg}}$, we have used our estimate of CPI inflation 2018/19 which broadly aligns with the duration of the temporary conditions.¹⁶³ As previously, we round the calculated values of X to the nearest quarter of a percentage point.

5.58 On this basis, we have calculated a charge control of CPI-13.50% for the Ethernet basket. BT will be required to, on average, decrease charges for services in the Ethernet basket by this proportion in each of Period 1 and Period 2 of the temporary charge control.

5.59 We forecast that together with the reductions BT has already made of £ [X], implementing this control on 1 December 2017 will result in BT earning £ [X] of revenue in 2017/18 and £ [X] of revenue in 2018/19, the latter being equal to our forecast of BT’s efficient CCA FAC in 2018/19. We estimate that, compared to an equivalent control applying for the entirety of 2017/18, this will allow BT to make an additional c.£ [X] recovery.¹⁶⁴ However, we note that this amounts to approximately 2% of the total revenue reduction that will result from the Ethernet charge controls between 2016/17 and 2018/19.¹⁶⁵ Moreover, we consider that this glidepath strikes an appropriate balance between promoting allocative efficiency and our duty to protect citizens and consumers under the Communications Act¹⁶⁶ and our aims of promoting productive and dynamic efficiency.

¹⁶³ We have used the 2016 LLCC model CPI forecast of 2.0% for 2018/19. We note that the 2017 WLA charge control model consulted on in September 2017 has forecast 2017/18 CPI of 2.2% but that using this figure would not result in a different rounded value of X.

¹⁶⁴ We have calculated £13m additional revenue by comparing the £ [X] 2017/18 revenue estimate with our estimate of 2017/18 revenues had we set this control (2016 LLCC with updated assumptions on dark fibre and geographic scope) for the three years beginning April 1 2016 = £ [X].

¹⁶⁵ We estimate total revenue reduction for the Ethernet basket between 2015/16 and 2018/19 due to the 2016 LLCC and the temporary conditions of c.£700m.

¹⁶⁶ Sections 3 and 4 of the Communications Act.

Sub-basket and sub-cap constraints

- 5.60 In relation to sub-baskets and sub-caps, in the 2016 BCMR Statement we implemented a sub-basket on EAD and EAD LA 1Gbit/s services in order to protect consumers from excessive prices for 1Gbit/s EAD and EAD LA services as well as dark fibre (which would be priced on an active minus basis).¹⁶⁷ We also implemented a sub-basket on Main Link services to mitigate the risk of BT using its pricing flexibility to maintain relatively high Main Link charges as a means of disincentivising the use of the dark fibre remedy.
- 5.61 For the temporary charge control, we have decided to maintain the EAD and EAD LA 1Gbit/s sub-basket and Main Link sub-basket because absent this additional constraint there remains a risk of excessive prices for these services which could have a negative impact on the uptake of dark fibre services. As set out above, whilst we are not imposing a dark fibre remedy under the temporary conditions, we have set the control taking into account our expectation that a dark fibre remedy will be added to the package of remedies in the period until March 2019, consistent with the 2017 Dark Fibre Consultation.
- 5.62 In relation to the sub-baskets levels, in the 2016 BCMR we considered how to set the EAD and EAD LA 1Gbit/s sub-basket and Main Link sub-baskets in detail.¹⁶⁸ We explained that we were concerned to strike an appropriate balance between protecting consumers from excessive prices and consistency with our dark fibre remedy, and considered 'approximately half of the value of the basket X to be a reasonable basis for the purposes of setting the sub-basket constraint'.¹⁶⁹ For each of the EAD and EAD LA 1Gbit/s sub-basket and Main Link sub-baskets this resulted in sub-basket controls of CPI-6.75%.
- 5.63 For the temporary controls we have decided to apply a consistent approach in order to maintain a similar balance between allowing BT flexibility to structure its prices and protecting customers from excessive prices, deciding on sub-basket controls of CPI-6.75%:
- In Period 1, a control of CPI-6.75% for the EAD and EAD LA 1Gbit/s sub-basket and a control of CPI-6.75% for the Main Link sub-basket; and
 - In Period 2, a control of CPI-6.75% for the EAD and EAD LA 1Gbit/s sub-basket and a control of CPI-6.75% for the Main Link sub-basket.
- 5.64 In the 2016 BCMR Statement we also implemented the following sub-baskets and sub-caps:¹⁷⁰
- Sub-basket on interconnection services and Cablelink; and
 - Total cost of ownership (TCO) sub-caps on each EAD and EBD service, and a sub-cap on all other charges.
- 5.65 For the temporary charge control, we have decided to impose the same sub-baskets and sub-caps because absent these controls there remains a risk of excessive prices for these

¹⁶⁷ 2016 BCMR Statement, Volume 2, paragraph 5.265-5.279.

¹⁶⁸ 2016 BCMR Statement, Volume 2, paragraph 5.278 in the case of EAD and EAD LA, and paragraph 5.284 for Main Link.

¹⁶⁹ 2016 BCMR Statement, Volume 2, paragraph 5.278.

¹⁷⁰ 2016 BCMR Statement, Volume 2, paragraphs, 5.288 to 5.299 and 5.300 to 5.326 respectively.

services. The narrowing of the scope of the remedies we are imposing in this statement does not have an impact on this view.

- 5.66 In the 2016 BCMR Statement, we set the interconnection services and Cablelink sub-basket at the same level of the Ethernet basket (CPI-13.50%). For the reasons set out in the 2016 BCMR Statement, for the temporary charge control we have decided to adopt the same approach by imposing an interconnection services and Cablelink sub-basket and setting it at the same level as the Ethernet basket control: for Period 1 a control of CPI-13.50%, and for Period 2 a control of CPI-13.50%.
- 5.67 In the 2016 BCMR Statement, we set both the TCO sub-caps on each EAD and EBD service and the sub-cap on all other charges at CPI-CPI. For the temporary controls, we have decided to maintain a similar balance between allowing BT flexibility to structure its prices and protecting customers from excessive prices, and hence apply the same sub-caps:
- In Period 1, a control of CPI-CPI for the TCO sub-caps on each EAD and EBD service, and a control of CPI-CPI for the sub-cap on all other charges; and
 - In Period 2, a control of CPI-CPI for the TCO sub-caps on each EAD and EBD service, and a control of CPI-CPI for the sub-cap on all other charges.
- 5.68 Table 5.7 below summarises the structure of the Ethernet basket, together with our sub-basket and sub-cap constraints.

Table 5.7: Scope and structure of the Ethernet basket and sub-basket and sub-cap constraints

Basket	Services within scope	Sub-basket and sub-cap constraints
Ethernet basket	<p>Connection, rental and Main Link charges for: Wholesale CISBO services up to and including 1Gbit/s outside the CLA.</p> <p>Interconnection services and Cablelink</p> <p>Ethernet ancillary charges (excluding ECCs, TRCs and Accommodation).</p>	<p>Sub-basket for EAD and EAD LA 1 Gbit/s.</p> <p>Sub-basket on Main Link charges.</p> <p>Sub-basket on interconnection services and Cablelink.</p> <p>Sub-basket on each combined rental and connection charge.</p> <p>Sub-cap on each and every charge (excluding ancillary charges with less than £1m annual revenue).</p>

Source: Ofcom.

Controls for Accommodation, Excess Construction and Time Related Charges

Accommodation Charges

- 5.69 In the 2016 BCMR Statement we decided to treat the Ethernet accommodation services that overlap with LLU Co-Mingling services the same as the LLU Co-Mingling services. For

Access Locate, a service that falls outside of the regulation above, we imposed a price cap of CPI-0%.¹⁷¹

- 5.70 For the same reasons set out in the 2016 BCMR Statement,¹⁷² we have decided to impose charge controls on the accommodation services because absent any charge controls on accommodation services there remains a risk of excessive prices for these services. The narrowing of the scope of the remedies we are imposing in this statement does not have an impact on the accommodation services. Therefore, we have decided to impose the same form of controls.

Excess Construction Charges

- 5.71 In the 2016 BCMR Statement we decided to impose glide path controls on the Direct ECCs as set out in Table 5.8.

Table 5.8: Direct ECCs controls in BCMR 2016

Charge	Control
Blown fibre	CPI-18.75%
Cable (fibre or copper)	CPI+17.25%
Blown fibre tubing in duct	CPI+8.75%
Internal cabling	CPI+11.75%
Survey fee/Planning charge	CPI-3.25%

Source: 2016 BCMR Statement, Table 1.5.

- 5.72 We also decided to impose a basis of charges obligation on BT for Contractor ECCs (i.e. Indirect ECCs). This required BT to ensure that the price of any ECCs that are provided through contractors are based on the charge paid to the contractor by BT, plus BT's relevant incremental costs, plus an appropriate mark-up for common costs.
- 5.73 We consider that absent any charge controls on direct and indirect ECCs there remains a risk of excessive prices for these services, as we found in the 2016 BCMR Statement.¹⁷³ We have therefore decided to impose charge controls on the ECCs in the period until March 2019. We also continue to believe that the basis of charges obligation remains a necessary and appropriate obligation in relation to Contractor ECCs.
- 5.74 In relation to Direct ECCs, BT appears to have complied with the controls in Year 1 of the 2016 LLCC and in Year 2 has already made price changes in line with the values of X set out in the 2016 LLCC. Given this, we believe the most proportionate approach is to impose the same form of Direct ECC controls as those imposed in the 2016 BCMR statement. This will

¹⁷¹ 2016 BCMR Statement, Volume 2, paragraph 8.17.

¹⁷² 2016 BCMR Statement, Volume 2, paragraph 8.15.

¹⁷³ 2016 BCMR Statement, Volume 2, paragraph 8.27.

bring prices for Direct ECCs in line with forecast efficient costs by the end of the temporary control period.

- 5.75 We have decided to allow BT to set the ECC balancing charge for the final year of the control period in line with that in the 2016 LLCC. In the interests of proportionality, we propose not to require BT to calculate a new ECC balancing charge for the first compliance period, rather, BT must continue to use the current balancing charge which was most recently changed on 1 July 2017.

Time Related Charges

- 5.76 In the 2016 BCMR Statement we imposed a charge control on Ethernet TRCs that we deemed to be non-contestable.¹⁷⁴
- 5.77 For the same reasons as set out in the 2016 BCMR Statement we consider that absent a charge control on non-contestable TRCs there would be a risk of excessive prices.¹⁷⁵ The narrowing of the scope of the remedies we are imposing in this statement does not have an impact on the TRCs. Therefore, we have decided to impose the same form of controls.

Implementation and notification periods

- 5.78 The text of the SMP conditions that set out the new charge controls summarised in this section is contained in the statutory notification published at Annex 1. This section summarises how some of the key charge control decisions are implemented in the SMP conditions in Annex 1 and how we have decided to ensure compliance with the charge control.

The temporary charge control formulae

- 5.79 The SMP conditions will have the following effects that relate to the temporary charge controls:
- **First**, the conditions will set charge controls from 1 December 2017 until 31 March 2019 for the services specified. This is done by means of the Controlling Percentage formulae.
 - **Second**, the conditions will ensure that average charges for services subject to the temporary charge controls are no higher than required by the Controlling Percentages, as specified. This is done by means of the Percentage Change formulae. The percentage change for Period 1 (which lasts for 121 days) will be based on the weighted average price between 1 May 2016 and 31 March 2017,¹⁷⁶ and the price for

¹⁷⁴ TRCs are fees levied for services such as fault repair and providing or rearranging services where the work is not covered within Openreach's terms of service. See Openreach, *Price list, Time Related Charges (Including Shifts)*, <https://www.openreach.co.uk/org/home/products/pricing/loadProductPriceDetails.do?data=hcaYjIWegP2u2KS8FTdcOBScuIM1Opem5f8dVePhh8UIMnGHsqdCOvzO163bjmh34D91D7M0q8u%2F%0AIIsgtIFAKw%3D%3D> (TRC Price List)

¹⁷⁵ 2016 BCMR Statement, Volume 2, paragraphs 8.85 to 8.86.

¹⁷⁶ This is an 11 month (335 day) period reflecting the fact that the 2016 LLCC took effect from 1 May 2016 rather than 1 April 2016, see 2016 BCMR Statement, Volume 2, paragraph 3.33.

the Period 2 (which lasts for 365 days) will be based on the weighted average price during Period 1.

- 5.80 In relation to Period 1, the temporary charge control formulae take into account the difference in BT's prices between 1 December 2017 and 31 March 2018 relative to its weighted average price between 1 May 2016 and 31 March 2017. This means that any price reductions BT has made between 1 April 2017 and 30 November 2017 will count towards compliance when calculating the weighted average price reduction.
- 5.81 For both the Controlling Percentage and Percentage Change formulae used in Period 1, we have used the CPI for the 12 months prior to 30 September 2016. While this is significantly prior to the start of Period 1, this approach is consistent with the approach in the 2016 LLCC, and would have been the value of CPI taken into account by BT when calculating price reductions for the 2017/18 financial year (year 2 of the LLCC 2016).¹⁷⁷ For the same reason, in Period 2, we have decided that the value of CPI for the 12 months prior to 30 September 2017 should be used for the purposes of assessing compliance with the temporary charge control, as in the 2016 LLCC.

We have used prior period revenues to weight price changes

- 5.82 The controls on BT's charges will limit the weighted average change in BT's charges to a maximum of CPI-X. Under the basket approach, it is necessary to calculate the weights apportioned to the services within the basket to assess BT's compliance with the controls. For the reasons explained in the 2016 BCMR Statement,¹⁷⁸ we have decided to adopt the prior period approach in relation to the temporary charge control.
- 5.83 Consistent with the approach in the 2016 BCMR Statement, compliance in each period will therefore be based on volumes as of 31 December the previous year:
- For Period 1, rental volumes as at 31 December 2016 and non-rental (e.g. connection) volumes in the 12 months up to 31 December 2017; and
 - For Period 2, rental volumes as at 31 December 2017 and non-rental (e.g. connection) volumes in the 12 months up to 31 December 2017.
- 5.84 These volumes will be multiplied by the average price during the following periods:
- For Period 1: the 11 months between 1 May 2016 and 31 March 2017; and
 - For Period 2: the 4 months between 1 December 2017 and 31 March 2018.
- 5.85 Under the 2016 LLCC, BT would have calculated the required price reductions for FY17/18 based on volumes on 31 December 2016. In these temporary conditions, we are imposing a control on BT in order to bring prices into line with where they would have been had BT reduced prices in line with the original charge control requirements. BT would therefore

¹⁷⁷ 2016 BCMR Statement, Volume 2, paragraph 9.10.

¹⁷⁸ 2016 BCMR Statement, Volume 2, paragraphs 9.13 to 9.27.

have calculated the prior period accrued revenues of a large number of services for the year ending 31 December 2016.

- 5.86 Given the limited time for BT to implement the changes required under these temporary conditions, we believe it would be unduly burdensome to require BT to assess accrued revenue on a new basis where relevant information already exists and was being used by BT under the 2016 LLCC.
- 5.87 As we have set out for our choice of CPI above, we also believe this approach to prior period revenues is the most consistent with the 2016 LLCC.

Accrued revenue

- 5.88 We have decided that BT must supply to Ofcom in an electronic format, no later than three months after the end of each subperiod, the data necessary for Ofcom to monitor compliance with the temporary charge control as described in more detail within the 'General Provisions and interpretation' and 'additional general provisions and interpretation' sections of each of the SMP conditions. Charge control compliance will be based on 'Accrued Revenue' rather than 'Prior Year Revenue' published in the RFS: because of timing differences between 'Accrued Revenue' and 'Prior Year Revenue' it will not be possible for BT to reconcile the compliance information to the RFS.
- 5.89 BT will provide us with a schedule 'Accrued revenue reconciliation' that for each service over £1m sets out monthly time series of revenue covering both the 'Prior Year Revenue' and the 'Accrued Revenue' period in order to demonstrate to us that the 'Accrued Revenue' is derived from the same source as the RFS Prior year revenue. BT must also show any adjustments it makes to either 'Accrued Revenue' or 'Prior Year Revenue' to arrive at the annual totals and must provide adequate explanations as to the nature of the adjustment. The 'Accrued Revenue' totals must reconcile to the totals within the compliance schedule and 'Prior Year Revenue' should reconcile to the RFS. While BT will be expected to publish a non-confidential version of the compliance schedule, it will not be required to publish a version of the 'accrued revenue reconciliation'.

Notification periods for price reductions in the first month

- 5.90 In condition 6, we have imposed requirements on BT relating to the notification period for changes to charges, specifically 28 days' notice for new services, 28 days' notice for price reductions and 90 days' notice for all other changes (including price increases).
- 5.91 We have decided to waive the requirement on BT to give 28 days' notice of price reductions for the first month of the temporary charge control period, consistent with our approach in the 2016 LLCC.¹⁷⁹ Given the length of Period 1, we consider that this waiver is necessary and appropriate to allow BT to reduce the prices in the first month to comply with the glide-path requirements. It will ensure that the price reductions are passed on to customers at the earliest opportunity and encourage downstream competition to the

¹⁷⁹ 2016 BCMR Statement, Volume 2, paragraph 9.32.

benefit of consumers. The 90 day period required for price increases remains unchanged as other requirements set out in condition 6.

BT is allowed to carry over differences in the average charge for a basket to the next charge control year

- 5.92 We are allowing BT to carry over any price reductions it makes in excess of the requirements of the temporary charge control for that Period. That is, if BT's average charge for this basket at the end of Period 1 is lower than required by the associated CPI-X constraint, it is able to carry over the difference into temporary charge control Period 2. This means that the benchmark for assessing BT's compliance with the temporary control in Period 2 is the level of charges BT was required to achieve, rather than the level it actually achieved.
- 5.93 Conversely, if BT's average charge is higher than the required level, it would have to take the excess into account in the following year. This mechanism addresses the impact of fluctuations in the factors included in the temporary charge control formula resulting in a difference between forecast and actual compliance with the temporary control. We have allowed for carry-overs the Ethernet basket, including sub-baskets, as set out in the conditions.
- 5.94 The use of a mechanism to correct for prices higher than those assumed by the charge control formula does not imply that BT is permitted to set prices which are above those assumed by the temporary charge control. In this regard, we note that the SMP conditions would require BT to repay the affected CPs any excess revenue it earns should its average charge be higher than the required level in a particular subperiod. This is consistent with our approach set out in the 2016 BCMR Statement.¹⁸⁰

Ancillary charges with annual revenue below £1m are excluded from the Ethernet basket but a safeguard cap will apply

- 5.95 In the 2016 BCMR Statement we decided to exclude any ancillary charges with annual revenue below £1m from the Ethernet basket.¹⁸¹ These charges were subject to a safeguard cap, set at the level of CPI-CPI. Our assessment determined that excluding these ancillary charges from the baskets had very little impact on the size of the overall basket and therefore the size of the reductions that we are requiring BT to make over the control period. Additionally, given the significant number of separate ancillary charges, we recognised that including these charges in their respective baskets would add complexity to monitoring and compliance.
- 5.96 In line with our approach in the 2016 BCMR Statement, we have decided to exclude any ancillary charges with annual revenue below £1m from the Ethernet basket in the period

¹⁸⁰ 2016 BCMR Statement, Volume 2, paragraphs 9.36 to 9.40.

¹⁸¹ Based on prior year weights.

until March 2019. We consider that this provides sufficient protection to BT's customers while minimising the complexity of compliance for BT.

We include provisions concerning 'material changes' to charge controlled services

- 5.97 As part of our temporary charge control conditions, we have included general provisions related to material changes that could impact on the effectiveness of the temporary charge control.
- 5.98 These provisions, which are included in each of the SMP conditions, cover any material changes, other than to a charge, including to:
- a material change to any product or service, which can include the introduction of a new product or service wholly or substantially in substitution for that existing product or service;
 - the date on which BT's financial year ends; and
 - the basis of the Consumer Price Index (where appropriate).

Legal tests

- 5.99 For the reasons set out above and summarised in Volume 2 and Annexes 26 to 34 of the 2016 BCMR Statement, we are satisfied that the conditions meet the relevant tests set out in the Act. In making these decisions we have taken utmost account of the EC Leased Lines Pricing Recommendation and the BEREC Common Position.¹⁸²

¹⁸² BEREC Common Position on best practice in remedies imposed as a consequence of a position of significant market power in the relevant markets for wholesale leased lines, BoR (12) 126.

6. Quality of Service

Introduction and summary

- 6.1 This section sets out our decision to impose in the period until March 2019 quality of service remedies on the wholesale CISBO products which are provided in the markets where we have found BT to have SMP in this statement.
- 6.2 We have decided to impose broadly the same form of quality of service remedies as the ones imposed in the BCMR 2016. These remedies were the subject of consultation and were not challenged on appeal.
- 6.3 We have replicated the minimum standards for Year 2 (2017/18) and Year 3 (2018/19) of the BCMR 2016. However, given that only 16 months remain of the overall timeframe of this review period, we have decided to assess compliance on the basis of a single compliance period, from 1 December 2017 to 31 March 2019, which corresponds to the remaining four months of Year 2 and the full Year 3 of the BCMR 2016.
- 6.4 The package of *ex ante* quality of service remedies we impose on BT in the period until March 2019 can be summarised as follows:
- a) A quality of service SMP condition which requires BT to comply with any quality of service requirement we may direct in relation to network access provided by BT pursuant to the general and specific network access obligations we have imposed;
 - b) Pursuant to the above quality of service SMP condition, a direction which requires BT to comply with the minimum standards summarised in Table 6.1 below;

Table 6.1: Minimum standards for Ethernet services

Minimum standard	Performance over compliance period (1 Dec 2017 to 31 Mar 2019) ¹⁸³
Mean time to provide across orders	No more than 40 working days
Lower percentile limit	At least 40% of provisions delivered in 29 working days or less
Upper percentile limit	No more than 3% of provisions delivered in more than 118 working days
% of orders completed on or before initial CDD	88%
Maximum mean period for the initial CDD	No more than 55 working days
% faults repaired within 5 hours	At least 94% of faults repaired within 5 hours

¹⁸³ Time periods exclude customer caused delays.

- c) Also pursuant to the above quality of service SMP condition, a direction which requires BT to provide specified quality of service Key Performance Indicators (KPIs); and
 - d) Pursuant to the general network access SMP condition we imposed on BT, a direction concerning the SLGs BT must provide for in its terms and conditions for the provision of Ethernet services up to and including 1 Gbit/s.
- 6.5 Aside from these *ex ante* remedies, we set out a framework for the conduct of, and principles and criteria to be applied to, contractual negotiations between Openreach and its customers concerning the SLAs and SLGs for the provision of Ethernet services.
- 6.6 In making these decisions we have taken utmost account of the relevant BEREC Common Positions.

Minimum standards

- 6.7 In Section 13 of the 2016 BCMR Statement we set out the reasons why *ex ante* regulation of BT's quality of service is appropriate. We remain of the view that in the absence of appropriate *ex ante* regulation, there is a risk that BT will not continue to improve its quality of service performance and instead allow it to deteriorate again impacting detrimentally on all downstream providers of leased lines, including BT's downstream businesses, and ultimately to the detriment of end users. We consider that this deterioration could begin to occur immediately.
- 6.8 We therefore consider that there is an urgent need to act in order to safeguard competition and to protect the interests of consumers by imposing quality of service obligations which are necessary and appropriate in order to ensure that BT's quality of service in the provision and repair of CISBO products is at acceptable levels.

Approach to setting quality of service remedies for the purposes of temporary conditions

- 6.9 In the BCMR 2016 we based our quality of service remedies on our analysis of Openreach's performance in relation to the CISBO products from all bandwidths except for WDM products that had very low volumes at the time. We considered Openreach's performance on a national basis, without differentiating between different geographical markets.
- 6.10 In this statement we conclude that BT has SMP in the markets for wholesale CISBO products with bandwidth of 1Gbit/s and below in the LP, the CBDs of Manchester and Bristol, and the RoUK excluding the Five CBDs. This SMP determination is narrower than the one adopted in the BCMR 2016 in that it does not include any VHB CISBO services (bandwidth of more than 1Gbit/s including all WDM products) and it does not include the CBDs of Birmingham, Glasgow and Leeds.
- 6.11 However, we consider that the minimum standards we adopted in that statement continue to be appropriate. This is because at the time of the 2016 BCMR Statement the vast majority (98%) of Ethernet leased lines had bandwidths of up to and including 1Gbit/s and thus the quality of service we observed and the metrics we took into account were

extensively reliant on this group of leased lines. Further, the number of leased lines in the CBDs of Birmingham, Glasgow and Leeds only accounts for around 2% of the overall volume of Lower Bandwidth CISBO circuits in the UK.¹⁸⁴

- 6.12 Therefore, we consider it appropriate to maintain the conditions we set in the BCMR 2016, with any necessary adjustments to the scope of the remedies, in light of the fact that we are not concluding on SMP in the market comprising VHB CISBO services and in the CBDs of Birmingham, Glasgow and Leeds, and taking into account the new compliance period.

Product scope to which the minimum standards will apply

- 6.13 In the 2016 BCMR Statement, we decided to apply minimum performance standards to all EAD (including EAD LA), EBD and Cablelink (and variants or replacements of all of these products) services.¹⁸⁵
- 6.14 As we can only impose SMP conditions to address competition problems arising from BT's SMP, we have concluded that the product scope should exclude any products with bandwidths above 1Gbit/s. Otherwise, the product scope remains the same as in the BCMR 2016.

Geographic scope to which the minimum standards will apply

- 6.15 We conclude that the minimum standards should be national in scope (excluding the CLA and the CBDs of Birmingham, Glasgow and Leeds) for the same reasons as are set out in the 2016 BCMR Statement.¹⁸⁶ Removing CISBO products with bandwidth over 1Gbit/s and the CBDs of Birmingham, Glasgow and Leeds from the scope of our quality of service regulation does not affect our view on the appropriateness of imposing national minimum standards.

Inclusion/exclusion of factors in assessment of compliance

- 6.16 For the reasons set out in the 2016 BCMR Statement,¹⁸⁷ we have concluded that in assessing compliance with the minimum standards it continues to be appropriate to:
- exclude customer caused delay;
 - include non-customer delay; and
 - include delays due to events covered by MBORCs.
- 6.17 The narrowing of the scope of the remedies we are imposing in this statement does not have an impact on any of the above factors and therefore we consider they should remain unchanged.

¹⁸⁴ Ofcom calculations based on BT s135 data. In calculating this we have excluded EFM volumes.

¹⁸⁵ Paragraphs 13.235 to 13.242, 2016 BCMR Statement.

¹⁸⁶ Paragraphs 13.314- 13.330, 2016 BCMR Statement.

¹⁸⁷ See in particular paragraphs 13.218 to 13.313, 2016 BCMR Statement.

Compliance period

- 6.18 In the 2016 BCMR Statement, we set out our decision to apply the minimum standards on an annual basis with Year 2 and Year 3 corresponding to financial years 2017/18 and 2018/19 respectively.¹⁸⁸ Our decision was based on the following reasons:
- a) Ethernet volumes are relatively low and therefore annual monitoring avoids errors due to small sample sizes;
 - b) the lead times for some orders are necessarily long (e.g. where there is extensive network build), and we expect average lead times of over one month, therefore more frequent monitoring may skew results due to ordering cycles and seasonality; and
 - c) annual measures will be less susceptible to short terms peaks and troughs in demand and resourcing.¹⁸⁹
- 6.19 We remain of the view, as set out in the 2016 BCMR Statement, that an annual compliance period is appropriate as it allows for the “smoothing” of any volatility in demand or mix in types of orders (e.g. orders that require longer lead times to fulfil) and as it avoids ordering cycles and seasonality. Given that we are already eight months through 2017/18, setting a compliance period of only four months to cover the remainder of the year could put Openreach at an undue disadvantage relative to its position under the minimum standards imposed in the BCMR 2016. However, we consider that it is nevertheless important for the relevant obligations to take account of Openreach’s performance during those four months. On balance therefore, we consider that it is appropriate and proportionate to assess compliance on the basis of a single 16-months compliance period, from 1 December 2017 until 31 March 2019, which corresponds to the sum of the remaining four months of Year 2 and the full Year 3 of the BCMR 2016.¹⁹⁰

Minimum standards on order completions against initial CDD and requirements to constrain the initial CDD

- 6.20 In the 2016 BCMR Statement, we set a standard for completion against initial CDD of 85% for Year 2 and 90% for Year 3 of the review.¹⁹¹ We also set a requirement that the maximum average period for setting the initial CDD should on average be no more than 55 working days for Year 2 and Year 3 of the review.¹⁹²
- 6.21 We consider that the narrowing of the scope of the regulation in this statement would not have a material impact on the level of minimum standards that it would be appropriate and proportionate to require Openreach to achieve for the following reasons:

¹⁸⁸ Paragraphs 13.671-13.673, 2016 BCMR Statement.

¹⁸⁹ Paragraph 13.207, May 2015 BCMR Consultation.

¹⁹⁰ Openreach’s performance in the first eight months of 2017/18 will not be included in its future compliance with the minimum standards.

¹⁹¹ Paragraphs 13.477-13.489, 2016 BCMR Statement.

¹⁹² Paragraphs 13.432-13.451, 2016 BCMR Statement.

- a) The planning and engineering processes for the provision of Ethernet circuits is largely the same regardless of the bandwidth associated with that circuit. There is therefore no obvious reason why it should be harder or easier to achieve a given initial CDD minimum standard for Ethernet circuits at or below 1 Gbit/s relative to those above 1 Gbit/s.
 - b) BT's operational processes for the delivery of Ethernet circuits are also largely the same regardless of the bandwidth associated with the circuit.
 - c) WDM services are already excluded from the scope of the minimum standards regulation.
 - d) Whilst there may be some differences in the mix of Ethernet orders in the CBDs of Birmingham, Glasgow and Leeds, we have no reason to believe that the removal of these circuits would impact the profile of certainty performance. In any case, as noted above, the proportion of leased lines in the CBDs of Birmingham, Glasgow and Leeds only accounts for around 2% of the overall volume of Lower Bandwidth CISBO circuits in the UK.
- 6.22 In the 2016 BCMR Statement we required Openreach to complete at least 85% of its orders on or before the initial CDD in 2017/18 and at least 90% in 2018/19. As we set out above, we have decided that compliance with the minimum standards should be measured over one compliance period of 16 months which corresponds to the remaining four months of 2017/18 and the full 12 months of 2018/19. We have therefore decided that Openreach has to comply with the weighted average of these two minimum standards by completing at least 88% of its orders on or before the initial CDD.¹⁹³
- 6.23 We consider that it is not appropriate to exclude in-flight orders for the purposes of the modified minimum standard we are imposing. Openreach has been under an obligation to comply with minimum standards for completion against initial CDD for the period from 1 May 2016 and therefore in assessing compliance with the initial CDD standard we will include orders placed prior to 1 December 2017.
- 6.24 For the reasons set out above in relation to initial CDD, we consider that there is no reason to make adjustments to the minimum standard we set in relation to the maximum average period for setting the initial CDD to reflect the narrower scope of the markets in which we are imposing minimum standards. We therefore consider it appropriate to set the maximum mean period for setting the initial CDD at 15 working days beyond the required mean time to provide minimum standard discussed further below.

Minimum standards on provisioning lead times

- 6.25 In the 2016 BCMR Statement we imposed the following specific time to provide minimum standards:

¹⁹³ 88% represents the weighted average between 85% and 90% given the remaining months from Year 2 and Year 3 compliance periods of BCMR 2016.

- the mean time to provide (MTTP) which we set at 40 working days (for the second and third years of the review);
 - a “lower percentile” limit which required 40% of orders to be provided in 29 working days or less (for the second and third years of the review);
 - an “upper percentile” limit which required no more than 3% of provisions to be delivered in 118 or more working days (for the second and third years of the review).
- 6.26 Our objective was to ensure improvements in reducing provisioning lead times for Ethernet customers by restoring performance to the level Openreach was achieving in 2011, the best year for which we had reliable data. Our full reasoning for using 2011 as a suitable benchmark is set out in Section 13 of the 2016 BCMR Statement.¹⁹⁴
- 6.27 In imposing the three ‘time to provide’ standards in BCMR 2016, we made some allowance for orders that were “in-flight” prior to our regulation coming into effect.¹⁹⁵ We therefore made an adjustment to the contribution which completion of those orders would make to Openreach’s overall time to provide performance in the first year, by applying a discounting factor to the time which would have already elapsed on each order in the workstack by the date the minimum standards came into effect. We concluded that the discounting factor should be set at 80%.
- 6.28 Our view is that the narrowing of the scope of the regulation in this statement would not have a material impact on the level of minimum standards that it would be appropriate and proportionate to require Openreach to achieve and which are intended to restore performance to the levels it was achieving in 2011 for the following reasons:
- a) Whilst the analysis of Openreach’s performance in 2011 that we relied on for our 2016 BCMR Statement included Ethernet circuits above 1Gbit/s (but not WDM services), the proportion of Ethernet circuits above 1Gbit/s accounted for less than 2% of the circuits on which we based our time to provide profiles. As noted above, Openreach’s operational processes for the delivery of Ethernet circuits are largely the same regardless of the bandwidth associated with the circuit. Thus, there is no inherent reason why Ethernet circuits above 1Gbit/s should be more difficult (or easier) to install such that excluding them from our analysis would materially affect the time to provide for circuits up to and including 1Gbit/s.
 - b) Whilst there may be some differences in the mix of Ethernet orders in the CBDs of Birmingham, Glasgow and Leeds, we have no reason to believe that the removal of these circuits would impact the profile of delivery performance. In any case, as noted above, the proportion of leased lines in these CBDs only accounts for around 2% of the overall volume of Lower Bandwidth CISBO services in the UK.
- 6.29 We conclude therefore that the narrowing of the scope of the minimum standards we are imposing for the purposes of the temporary conditions has no impact on the structure and

¹⁹⁴ Paragraphs 13.493, 13.500-13.503, 13.507-13.508, 2016 BCMR Statement. Also, see Figure 13.2, May 2015 BCMR Consultation.

¹⁹⁵ Paragraphs 13.588-13.591, 2016 BCMR Statement.

metrics we set in the 2016 BCMR Statement. We have therefore decided to impose the same level of standards.

- 6.30 We also consider that it is not appropriate to exclude consideration of in-flight orders for the purposes of the modified minimum standards we are imposing. In contrast to the situation we faced in setting minimum standards in the 2016 BCMR Statement, Openreach has been under an obligation to comply with minimum standards in relation to time to provide for the period from 1 May 2016 and therefore in assessing compliance with the provisioning lead time standards we will include orders placed prior to 1 December 2017.

Minimum standards on repair

- 6.31 In the 2016 BCMR Statement, we imposed a backstop standard to incentivise Openreach to maintain good performance of Ethernet services whilst concentrating on improving its provisioning performance. The standard of repair was based on the proportion of repairs that must be completed within the contract Service Level Agreement (SLA). We therefore required that during each of the three years of the review period, Openreach must resolve 94% of faults within 5 hours as per its SLA.¹⁹⁶
- 6.32 Our view is that there is no need to modify the standard of repair we imposed in the 2016 BCMR Statement (other than to narrow this to Ethernet circuits up to and including 1Gbit/s and to exclude the CBDs of Birmingham, Glasgow and Leeds from the scope of the standard). We are not aware of any reasons that would suggest that Ethernet circuits above 1 Gbit/s are likely to be significantly easier or harder to repair within 5 hours than circuits at or below 1Gbit/s. We also have no reason to believe that the removal of the circuits in the CBDs of Birmingham, Glasgow and Leeds would impact the profile of repair performance. In any case, as noted above, the proportion of leased lines in these CBDs only accounts for around 2% of the overall volume of Lower Bandwidth CISBO services in the UK.
- 6.33 For the reasons set out above and summarised in paragraphs 13.689-13.694 of the 2016 BCMR Statement, we are satisfied that the conditions meet the relevant tests set out in the Act.

Transparency as to quality of service

- 6.34 In the 2016 BCMR Statement we imposed a KPI direction in:
- a) the wholesale market for CISBO in the London Periphery; and
 - b) the wholesale market for CISBO in the UK excluding the CLA, the London periphery and the Hull area.
- 6.35 Our reasoning and specific KPI requirements are set out in paragraphs 13.726-13.748 of the BCMR 2016 statement.

¹⁹⁶ Paragraphs 13.620 to 13.630, 2016 BCMR Statement.

- 6.36 We consider that the reasoning and specific KPIs remain unchanged but in light of the narrower scope of markets we are imposing remedies on in this statement we have decided that the KPI direction will apply to:
- a) the market comprising Lower Bandwidth CISBO services in the LP;
 - b) the market comprising Lower Bandwidth CISBO services in the CBDs of Bristol and Manchester; and
 - c) the market comprising Lower Bandwidth CISBO services in the RoUK excluding the Five CBDs.
- 6.37 In Section 9 of the 2016 BCMR Statement we decided to impose a direction requiring BT to provide quality of service information in the form of KPIs on dark fibre once it is launched.¹⁹⁷ As we are not imposing a dark fibre remedy in this statement, we are not imposing an equivalent direction now.
- 6.38 For the reasons set out above and summarised in paragraphs 13.744-13.749 of the 2016 BCMR Statement, we are satisfied that the conditions meet the relevant tests set out in the Act.

Direction relating to Service Level Guarantees (SLGs)

- 6.39 In the 2016 BCMR Statement we imposed an existing SLG Direction requiring BT to continue to include certain provisions specified within it in its terms and conditions.¹⁹⁸ At the same time we recognised that Openreach and the industry were in the process of discussing changes to the Ethernet provisioning process and that these changes together with the minimum standards we were imposing were likely to require some changes to the SLAs/SLGs. We therefore encouraged industry to seek to reach agreement on any potential changes to the SLAs/SLGs as appropriate and set out our expectations on how the negotiation process should run and the criteria for assessing SLA/SLG requests. We also said that we saw a central role for the OTA2 in facilitating negotiations.
- 6.40 However, we concluded that until such time as SLAs/SLGs were agreed or otherwise resolved by reference to Ofcom, it remained appropriate to maintain the SLG Direction.
- 6.41 As industry discussions on this matter have not yet concluded, we consider it appropriate to reimpose the SLG Direction such that BT is required to continue to include the relevant provisions in its terms and conditions going forward. Given the narrower scope of our minimum standards, the SLG Direction should only apply to Ethernet services up to and including 1Gbit/s and exclude circuits in the CBDs of Birmingham, Glasgow and Leeds.
- 6.42 We expect to review what regulatory arrangements are appropriate and necessary as regards SLGs following the conclusion of contractual negotiations on appropriate SLAs and SLGs.

¹⁹⁷ 2016 BCMR Statement, Volume 1, paragraphs 9.197-9.201.

¹⁹⁸ 2016 BCMR Statement, Volume 1, paragraphs 13.758-13.760.

- 6.43 Where we are notified by the OTA2 that new SLAs and SLGs have been agreed, or conversely where we are notified that new SLAs and SLGs have not been agreed, we will consider what response might be necessary and appropriate as regards the SLG Direction in force, in accordance with the provisions and procedures detailed in section 49 of the Act.
- 6.44 For the reasons set out above and summarised in paragraphs 13.761-13.765 of the 2016 BCMR Statement, we are satisfied that the directions meet the relevant tests set out in the Act.

A1. Legal instruments

Published separately.