

Ofcom

making communications work
for everyone

Disputes between BT and each of TalkTalk and Sky in relation to BT's historical charges for SFIs and TRCs

This version is non-confidential
Confidential redactions are indicated by [✂]

Final Determination

Publication date: 17 November 2016

About this document

This document sets out Ofcom's resolution of two disputes; between BT and TalkTalk (covering the period 1 April 2011 to 30 June 2014) and BT and Sky (covering the period 1 January 2009 to 30 June 2014), in relation to allegations that BT's Time Related Charges (TRCs) and charges for Special Fault Investigations (SFIs) were not cost oriented as required by Significant Market Power (SMP) obligations imposed on BT.

TRCs apply where Communication Providers (CPs) request BT to carry out engineering work on lines that is not included within their service level agreements with BT. SFIs are services requested by CPs for further investigation of potential broadband faults on lines where no fault has been found using the standard Openreach line test.

We have concluded that certain of BT's charges for TRCs and SFIs were not cost oriented and that BT should therefore repay TalkTalk and Sky a level of repayment reflecting the full amount of the overcharge for each of the relevant services, plus interest.

Contents

Section		Page
1	Summary	5
2	Regulatory Framework	10
3	The Disputes	15
4	Analysis and final conclusions	24

Annex		Page
1	Determination to resolve a dispute between BT and TalkTalk	113
2	Determination to resolve a dispute between BT and Sky	117
3	Summary of responses	123
4	SMP Conditions	141

Glossary of terms

2003 Act – the Communications Act 2003.

2003 Ofcom Statement – Ofcom Review of the fixed narrowband wholesale exchange line, call origination, conveyance and transit markets, 28 November 2003. Available at: <http://stakeholders.ofcom.org.uk/binaries/consultations/750148/fixednarrowbandstatement.pdf>.

2004 WLA Statement – Review of the wholesale local access market, 16 December 2004. Available at: <http://stakeholders.ofcom.org.uk/binaries/consultations/rwlam/statement/rwlam161204.pdf>.

2009 Narrowband Statement – Review of the fixed narrowband services wholesale markets, 15 September 2009. Available at: http://stakeholders.ofcom.org.uk/binaries/consultations/wnmr_statement_consultation/summary/main.pdf.

2010 WFAEL Statement – Review of the wholesale fixed analogue exchange lines markets, 20 December 2010. Available at: <http://stakeholders.ofcom.org.uk/binaries/consultations/review-wholesale-fixed-exchange/statement/statement.pdf>.

2010 WLA Statement – Review of the wholesale local access market, 7 October 2010. Available at: http://stakeholders.ofcom.org.uk/binaries/consultations/wla/statement/WLA_statement.pdf.

2012 LLU/WLR Statement – Charge control review for LLU and WLR services, 7 March 2012. Available at: <http://stakeholders.ofcom.org.uk/binaries/consultations/wlr-cc-2011/statement/statementMarch12.pdf>.

2013 FAMR Consultation – Fixed access market reviews: wholesale local access, wholesale fixed analogue exchange lines, ISDN2 and ISDN30. Consultation on the proposed markets, market power determinations and remedies, 3 July 2013. Available at: <http://stakeholders.ofcom.org.uk/binaries/consultations/fixed-accessmarket-reviews/summary/fixed-access-markets.pdf>.

2014 FAMR Statement – Fixed access market reviews 2014: wholesale local access, wholesale fixed analogue exchange lines, ISDN2 and ISDN30, 26 June 2014. Available at: <http://stakeholders.ofcom.org.uk/telecoms/ga-scheme/specific-conditions-entitlement/market-power/fixed-access-market-reviews-2014/statement/>.

2016 BCMR Statement – Business Connectivity Market Review, 28 April 2016. Available at: <https://www.ofcom.org.uk/consultations-and-statements/category-1/business-connectivity-market-review-2015>.

AFI – Additional Financial Information provided by BT to Ofcom.

BoE+1% – Bank of England base rate of interest plus 1%.

BT – British Telecommunications Plc.

CAT – Competition Appeal Tribunal.

Final determinations to resolve disputes regarding BT's historical charges for SFIs and TRCs

Cost Orientation Conditions – SMP Conditions FA3, AA3, AAA3, FAA4.1 and AAAA3, each of which is set out in full in Annex 4.

CP – Communications provider.

CRF – Common Regulatory Framework.

Disputes – The TalkTalk Dispute and the Sky Dispute.

DLRIC – Distributed long run incremental cost.

DSAC – Distributed stand alone cost.

Ethernet appeals – The appeals to the Court of Appeal of the CAT's Ethernet Judgment.

Ethernet Determinations – The five determinations issued on 20 December 2012 to resolve disputes between BT and each of CWW, Sky, TalkTalk, Verizon and Virgin concerning BT's charges for wholesale Ethernet services. Available at:

http://stakeholders.ofcom.org.uk/binaries/consultations/ethernet-services/annexes/Ethernet_FD.pdf.

Ethernet Judgment – The CAT's judgment disposing of appeals of the Ethernet Determinations, handed down on 1 August 2014 [2014] CAT 14. Available at:

http://www.catribunal.org.uk/files/1205-7_Ethernets_Judgment_CAT_14_010814.pdf.

FAC – Fully allocated cost. An accounting approach under which all the costs of the company are distributed between its various products and services. The fully allocated cost of a product or service may therefore include some common costs that are not directly attributable to the service.

Final Conclusions – this document.

Gamma Determination – The determination issued on 25 October 2013 to resolve a dispute between Gamma and BT relating to the 'Ofcom Interest Rate' contained within BT's Standard Interconnect Agreement (SIA). Available at:

http://stakeholders.ofcom.org.uk/binaries/enforcement/competition-bulletins/closed-cases/all-closed-cases/cw_01108/CW_011080613.pdf.

Interest Guidance – The guidance set out in Annex 2 to the Gamma Determination regarding Ofcom's approach to interest in the context of resolving disputes involving charges payable under BT's SIA.

Level 3 Determination – The determination issued on 16 May 2014 (corrected on 16 July 2014) to resolve a dispute between Level 3 Communications UK Limited and BT relating to historic PPC charges. Available at:

http://stakeholders.ofcom.org.uk/binaries/enforcement/competition-bulletins/open-cases/all-open-cases/cw_01118/CW1118_final_determination.pdf.

LLU – Local loop unbundling.

LRIC – Long run incremental costs.

MPF – Metallic path facility.

Openreach – A BT Group business offering CPs products and services that are linked to BT's nationwide local access network.

PPC Determinations – The six determinations issued on 14 October 2009 to resolve disputes between BT and each of Cable & Wireless UK, THUS plc, Global Crossing (UK) Telecommunications Limited, Virgin Media Limited, Verizon UK Limited and COLT Telecommunications concerning BT's charges for PPCs

http://stakeholders.ofcom.org.uk/binaries/consultations/draft_deter_ppc/PPC_final_determination.pdf.

PPCs – Partial private circuits.

PPC Judgment – The CAT's judgment disposing of BT's appeal of the PPC Determinations, handed down on 22 March 2011 - [2011] CAT 5. Available at:

http://www.catribunal.org.uk/files/1146_BT_Judgment_CAT5_220311.pdf.

PPC Court of Appeal Judgment – The Court of Appeal's judgment in BT's appeal of the PPC Judgment, handed down on 27 July 2012 - [2012] EWCA Civ 1051. Available at:

http://www.catribunal.org.uk/files/1146_BT_Judgment_of_the_Court_of_Appeal_270712.pdf.

Parties – BT and Sky (in the Sky Dispute) and BT and TalkTalk (in the TalkTalk Dispute).

RFS – BT's Regulatory financial statements. Available at:

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

Relevant Period in the Sky Dispute – 1 January 2009 to 30 June 2014.

Relevant Period in the TalkTalk Dispute – 1 April 2011 to 30 June 2014.

SFIs – Special fault investigation services.

SIA – BT's Standard Interconnection Agreement.

SMP – Significant Market Power.

SMP conditions – Regulatory conditions imposed on a specific CP that has been found to have SMP in a market review conducted by Ofcom.

SMPF – Shared metallic path facility.

Sky – Sky UK Limited.

Sky Dispute – The dispute between Sky and BT regarding BT's historical charges for SFIs and TRCs. Further details available at: https://www.ofcom.org.uk/about-ofcom/latest/bulletins/competition-bulletins/all-closed-cases/cw_01185.

Sky Provisional Conclusions – The provisional conclusions issued on 26 September 2016 to resolve a dispute between Sky and BT regarding BT's historical charges for SFIs and TRCs. Available at:

https://www.ofcom.org.uk/data/assets/pdf_file/0019/90217/cw_01185_Provisional_Conclusions.pdf.

TalkTalk – TalkTalk Telecom Group plc.

Final determinations to resolve disputes regarding BT's historical charges for SFIs and TRCs

TalkTalk Dispute – The dispute between TalkTalk and BT regarding BT's historical charges for SFIs and TRCs. Further details available at: https://www.ofcom.org.uk/about-ofcom/latest/bulletins/competition-bulletins/all-closed-cases/cw_01182.

TalkTalk Provisional Conclusions – The provisional conclusions issued on 12 August 2016 to resolve a dispute between TalkTalk and BT regarding BT's historical charges for SFIs and TRCs. Available at: https://www.ofcom.org.uk/data/assets/pdf_file/0029/85268/dispute_between_bt_and_talktalk_in_relation_to_bts_historical_charges_for_sfis_and_trcs.pdf.

TRCs – Time related charges.

WFAEL – Wholesale fixed analogue exchange lines.

WLA – Wholesale local access.

WLR – Wholesale line rental.

Section 1

Summary

- 1.1 This document (the Final Conclusions), which includes the Final Determinations attached in Annexes 1 and 2, sets out our resolution of disputes brought by each of TalkTalk Telecom Group plc (TalkTalk) and Sky UK Limited (Sky) against British Telecommunications plc (BT) (collectively the Parties) relating to BT's historical¹ charges for special fault investigation services (SFIs) and time related charges (TRCs) (the Disputes).
- 1.2 TRCs apply where communications providers (CPs) request BT to carry out engineering work on lines that is not included within their service level agreements with BT. SFIs are services requested by CPs for further investigation of potential broadband faults on metallic path facility (MPF) and shared metallic path facility (SMPF) lines where no fault has been found using the standard Openreach line test.²
- 1.3 Until 26 June 2014 BT was subject to obligations to ensure that its charges for SFIs and TRCs were cost oriented pursuant to SMP conditions imposed in relation to the wholesale local access (WLA) and wholesale fixed analogue exchange line (WFAEL) markets, where those services were reasonably necessary for the use of BT's network access services in the WLA/WFAEL markets, including its LLU, sub-loop unbundling and WLR services.
- 1.4 Both TalkTalk and Sky argued that BT's charges for SFIs and TRCs were not cost oriented as required by the applicable SMP obligations imposed on BT. As a consequence TalkTalk said it had been overcharged by £[x<]³ and Sky said it had been overcharged by around £[x<].⁴
- 1.5 BT disagreed that its charges were not cost oriented.
- 1.6 Although the TalkTalk Dispute and the Sky Dispute cover different, albeit overlapping, services and time periods⁵ they are very similar in nature. Consequently, we have adopted a consistent approach for the purposes of resolving each dispute, including using the same analytical framework, and have decided to set out our final conclusions for both disputes within this document.

¹ Between 1 January 2009 and 30 June 2014.

² SFI used to be one single service. It is now split into a number of different services, which BT refers to as modules, with two main variants. The 'Frames Direct' variant is purchased where the CP believes that the fault lies at the local exchange and involves no visit to the end customer premises. The 'End User' variant is purchased where the CP wishes BT to begin the fault investigation at the end customer's premises and is comprised of a series of modules – 'Base', 'Internal Equipment', 'Network', 'Frame', 'Internal Wiring' and 'Coop'.

³ In the period 1 April 2011 to 30 June 2014 (the Relevant Period in the TalkTalk Dispute). See TalkTalk submission dated 10 May 2016 (the TalkTalk submission), paragraph 1.4.

⁴ In the period 1 January 2009 to 30 June 2014 (the Relevant Period in the Sky Dispute). See Sky submission dated 22 June 2016 (the Sky submission), paragraph 1.17.

⁵ The TalkTalk Dispute covers SFIs and TRCs provided in connection with BT's services in the WLA market only. TalkTalk did not include TRC 'Supplementary charges' within its dispute. The Sky Dispute covers SFIs and TRCs provided in connection with BT's services in both the WLA and WFAEL markets (specifically its LLU and WLR services). Sky did not include TRC 'stores' charges or 'internal and external NTE shift' charges within its dispute.

Ofcom's conclusions on the matters in dispute

- 1.7 In assessing the cost orientation of the charges levied by BT, we have applied our established analytical framework, which involves four steps:
 - 1.7.1 First we considered whether BT has satisfactorily demonstrated that its relevant charges were cost oriented in accordance with SMP Conditions FA3, AA3, AAA3, FAA4.1 and AAAA3 (together, the Cost Orientation Conditions), as applicable.
 - 1.7.2 Where BT has not satisfactorily demonstrated compliance, we considered whether BT's relevant charges were nonetheless below DSAC.
 - 1.7.3 We then considered whether there were any other relevant factors that should be taken into account in order to determine whether BT's charges were compliant with the applicable Cost Orientation Conditions.
 - 1.7.4 As a result of our findings, we then considered whether we should require BT to make repayments and whether interest should be paid on any repayments.

Provisional conclusions

- 1.8 We published our provisional conclusions in the TalkTalk Dispute on 12 August 2016 (the TalkTalk Provisional Conclusions)⁶ and in the Sky Dispute on 26 September 2016 (the Sky Provisional Conclusions)⁷. In both cases we provisionally concluded that BT had failed to demonstrate to our satisfaction that its TRCs and SFI charges were compliant with the applicable Cost Orientation Conditions in the relevant periods for the Disputes.
- 1.9 On the basis of our own assessment of the relevant charges in each dispute, we provisionally concluded that BT's charges for a number of SFI and TRC services were not cost oriented and that BT had overcharged TalkTalk and Sky. We proposed that BT should repay TalkTalk and Sky the amount of overcharge for each relevant service, plus interest.

Responses to provisional conclusions

- 1.10 We received responses to the TalkTalk Provisional Conclusions from BT, TalkTalk, Gamma and Vodafone and responses to the Sky Provisional Conclusions from BT, Sky and Vodafone. A summary of the responses made is set out in Annex 3.
- 1.11 TalkTalk and Sky broadly agreed with most of our provisional conclusions but identified certain concerns with our proposed approach to resolving the Disputes. TalkTalk submitted that, in addition to assessing BT's charges against DSAC, we should use an 'aggregate FAC based test' to avoid BT over-recovering common costs. Sky requested that we require BT to make immediate repayment of the

⁶ Further details of the TalkTalk Dispute are available on Ofcom's website at: https://www.ofcom.org.uk/about-ofcom/latest/bulletins/competition-bulletins/all-closed-cases/cw_01182

⁷ Further details of the Sky Dispute are available on Ofcom's website at: https://www.ofcom.org.uk/about-ofcom/latest/bulletins/competition-bulletins/all-closed-cases/cw_01185.

amounts overcharged and argued for a higher level of interest than that proposed in the provisional conclusions.

- 1.12 BT agreed with our general approach to assessing cost orientation, but did not agree with Ofcom's conclusion that charges for TRCs and SFIs were not cost oriented. BT's arguments centred around two main issues.
- 1.13 First, BT argued that we had understated the indirect (i.e. non-pay) costs associated with the provision of TRCs and SFIs when calculating the FAC (and therefore the DSAC) of each service. BT proposed that Ofcom should adopt a different approach to estimating these indirect costs by instead applying a percentage uplift to direct (i.e. pay) costs, based on the ratios between indirect and direct pay costs in the RFS.
- 1.14 Second, BT argued that certain SFI modules should be aggregated with the 'Base' module for the purposes of assessing the level of any overcharge. This was on the basis that, although BT publishes separate charges for these modules, they can only be purchased in conjunction with the Base module (i.e. they cannot be purchased individually).

Final Determinations

- 1.15 Having considered the representations made by the parties, for the reasons set out in Section 4 below we remain of the view that we have applied the appropriate framework for resolving the Disputes. We have made some adjustments to the way in which we have estimated indirect (non-pay) costs when calculating the FAC of TRC and SFI services. These adjustments have increased our FAC estimates for most of the services in dispute by between 0% and 20%.⁸ In turn, this has the general effect of increasing our DSAC estimates.
- 1.16 Having applied our analytical framework in order to assess BT's charges for TRCs and SFIs our final conclusions are that:
 - 1.16.1 BT has not demonstrated to our satisfaction that its TRCs and SFI charges were compliant with the applicable Cost Orientation Conditions in the Relevant Period in the TalkTalk Dispute and the Relevant Period in the Sky Dispute;
 - 1.16.2 On the basis of our own assessment of the cost orientation of these charges:

TRC charges:

 - TRC hourly charges and Sunday visit charges were cost oriented from 1 April 2011 to 7 June 2012 but were not cost oriented for the rest of the relevant periods;
 - TRC other times and Sunday/BH hourly charges and other times visit charges were cost oriented from 1 April 2011 to 31 March 2012 but not cost oriented for the rest of the relevant periods;

⁸ In 2014/15 the FAC for most TRC and SFI is broadly unchanged from the Sky Provisional Conclusions while for 2008/09 it has increased by 20%, with smaller increases in the years up to 2014/15. For some services, such as supplementary charges and Sunday and other times visit and hourly charges, costs reduced slightly in the later years.

- Visit TRC charges were not cost oriented from 1 January to 16 October 2009 and from 1 April 2013 to 26 June 2014 but were cost oriented from 17 October 2009 to 31 March 2013;
- Supplementary charges were not cost oriented throughout the relevant periods;
- The charges for internal and external NTE shift were cost oriented in the period 8 June 2012 to 31 March 2013 but were not cost oriented for the period from 1 April 2013 to 26 June 2014;
- TRC stores charges for internal pack, external pack and data ext kit were not cost oriented during the whole of the Relevant Period in the TalkTalk Dispute; and
- TRC stores charges for broadband front plate were cost oriented during the whole of the Relevant Period in the TalkTalk Dispute.

SFI charges:

- SFI1 charges were not cost oriented from 1 January 2009 until withdrawn in March 2011;
 - SFI2 'Base' module charges were cost oriented throughout the period;
 - SFI2 'Frame' and 'Internal Wiring' module charges were not cost oriented from their introduction on 13 March 2010 until 26 June 2014;
 - SFI2 'Network' module charges were not cost oriented in 2009/10, 2010/11, 2012/13, 2013/14 and 2014/15 but were cost oriented in 2011/12;
 - SFI2 'Coop' module charges were not cost oriented in 2009/10, 2010/11, 2011/12 and 2012/13 but were cost oriented in 2013/14 and 2014/15;
 - SFI2 'Internal Equipment' module charges were not cost oriented in 2009/10 and 2010/11 but were cost oriented in 2011/12, 2012/13, 2013/14 and 2014/15; and
 - SFI 2 'Frame Direct' module charges were not cost oriented in 2009/10 and from 8 June 2012 to 26 June 2014 but were cost oriented from 1 April 2010 until 7 June 2012.
- 1.16.3 TalkTalk and Sky were both overcharged for TRC and SFI services for the periods covered by their disputes where charges were not cost oriented, to the extent that those services were reasonably necessary for the use of BT's network access services including LLU and/or WLR services.
- 1.16.4 We have identified the amount by which BT has overcharged for each relevant service in each financial year.⁹ BT shall repay the overcharge to

⁹ The overcharge for each relevant service within the scope of the TalkTalk Dispute and Sky Dispute is set out in Tables 4.30 and 4.31, respectively.

TalkTalk and Sky in full,¹⁰ plus interest at a rate to be agreed between the Parties. Repayment shall be due following the Court of Appeal's judgment in the Ethernet appeals.¹¹

- 1.17 The Final Determinations in the Disputes reflecting these final conclusions are set out in Annex 1 for the TalkTalk Dispute and Annex 2 for the Sky Dispute.
- 1.18 Our Final Determinations resolving these Disputes reflect the facts of, and are confined to, the Disputes as referred to us. However, if other CPs approach BT seeking repayments in respect of TRCs or SFIs on which we have found there to be an overcharge in the context of these Disputes (i.e. TRCs and SFIs provided in relation to LLU and WLR services), we would expect BT to take account of our Final Conclusions in any negotiations with those CPs.

Structure of the remainder of this document

- 1.19 In line with Ofcom's Dispute Resolution Guidelines¹² this document sets out our reasoning and assessment in relation to the matters in dispute as well as our final decision and determination to resolve the Disputes.
- 1.20 We set out the background on the regulatory requirements relevant to the Dispute in **Section 2**. The issues in dispute and Ofcom's duties and powers in resolving disputes are set out in **Section 3**. The analysis, reasoning and final conclusions are set out in **Section 4**.

¹⁰ The difference between the level of the charge and DSAC for each service within the scope of the Disputes where an overcharge has been identified.

¹¹ Provided that judgment does not find that Ofcom has no jurisdiction under section 190(2) of the 2003 Act to require repayments or make such directions.

¹² 'Dispute Resolution Guidelines: Ofcom's guidelines for the handling of regulatory disputes', 7 June 2011. Available at: https://www.ofcom.org.uk/data/assets/pdf_file/0020/71624/guidelines.pdf.

Section 2

Regulatory Framework

Introduction

- 2.1 The Disputes relate to BT's historical charges for TRCs and SFIs and the extent to which BT complied with applicable cost orientation obligations when setting those charges.
- 2.2 In this section, we set out the relevant cost orientation obligations which applied to BT's charges for SFIs and TRCs in the WLA and WFAEL markets during the period 1 January 2009 to 30 June 2014 and the judgments of the Competition Appeal Tribunal (CAT) and Court of Appeal relating to Ofcom's assessment of BT's cost orientation obligations in previous disputes, which we consider relevant to our determination of the Disputes.
- 2.3 The relevant SMP conditions are set out in full in Annex 4.

Wholesale local access market

- 2.4 Until 7 October 2010, BT's provision of services in the WLA market was subject to SMP conditions imposed by Ofcom in a statement following a market review conducted in 2004 (the 2004 WLA Statement), which set out Ofcom's finding that BT held SMP in the market for WLA services in the UK excluding the Hull area.¹³
- 2.5 The SMP obligations imposed on BT under the 2004 WLA Statement required it, among other things, to provide network access on reasonable request (Condition FA1). BT was required to provide specific forms of network access including LLU services, sub-loop unbundling services and such ancillary services as may be reasonably necessary to use those services (Condition FA9).
- 2.6 The SMP obligations also included obligations on BT to ensure and to be able to demonstrate that its charges for network access were cost oriented (Condition FA3.1):
- “Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by Condition FA1 and/or Condition FA9 is reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed.”*
- 2.7 Ofcom published its second review of the WLA market on 7 October 2010 (the 2010 WLA Statement), which set out Ofcom's finding that BT continued to hold SMP in the market for wholesale local access services in the UK excluding the Hull area.¹⁴

¹³ 'Review of the wholesale local access market', 16 December 2004. Available at: <http://stakeholders.ofcom.org.uk/binaries/consultations/rwlam/statement/rwlam161204.pdf>.

¹⁴ 'Review of the wholesale local access market', 7 October 2010. Available at: http://stakeholders.ofcom.org.uk/binaries/consultations/wla/statement/WLA_statement.pdf.

Ofcom imposed a new set of SMP obligations on BT in place of those imposed under the 2004 WLA Statement. BT continued to be subject to requirements, among other things, to provide network access on reasonable request (Condition FAA1), to provide LLU services, sub-loop unbundling services and such ancillary services as may be reasonably necessary to use those services (Conditions FAA9 and FAA10), and to ensure and to be able to demonstrate that its charges for network access were cost oriented (Condition FAA4.1).¹⁵

- 2.8 TRCs and SFIs are ancillary services which, under both sets of SMP conditions, BT was required to provide where they were reasonably necessary for the use of BT's LLU services or sub-loop unbundling services (under Conditions FA9/FAA9/FAA10), or otherwise for the provision of network access under Conditions FA1/FAA1. BT's charges for SFIs and TRCs were therefore subject to the cost orientation obligations under Conditions FA3.1/FAA4.1, as applicable, where they were purchased in relation to BT's network access services in the WLA market, including its LLU and sub-loop unbundling services, and could be considered reasonably necessary for the use of those services.

Wholesale fixed analogue exchange lines market

- 2.9 Until 15 September 2009, BT's provision of services in the WFAEL market was subject to SMP conditions originally imposed by Oftel following a market review published in 2003 (the 2003 Oftel Statement), which set out Oftel's finding that BT held SMP in several markets relating to wholesale services provided over fixed narrowband networks, including the WFAEL market, in the UK excluding the Hull area.¹⁶
- 2.10 The SMP obligations imposed on BT in those markets required it, among other things, to provide network access on reasonable request (Condition AA1) and to provide specific forms of network access, including WLR services (Condition AA10). The SMP obligations also included obligations on BT to ensure and to be able to demonstrate that its charges for network access were cost oriented (Condition AA3.1):

"Unless the Director directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of the Director, that each and every charge offered, payable or proposed for Network Access covered by Condition AA1(a) is reasonably derived from the costs of provision based on a forward looking long-run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed."

- 2.11 On 15 September 2009, Ofcom published its review of the wholesale fixed narrowband markets (the 2009 Narrowband Statement) which set out Ofcom's findings that BT continued to hold SMP in certain wholesale fixed narrowband services markets in the UK excluding the Hull area, including the WFAEL market.¹⁷

¹⁵ The cost orientation obligation imposed on BT under Condition FAA4.1 was equivalent to that under Condition FA3.1. The relevant SMP conditions are set out in full in Annex 4.

¹⁶ Oftel, 'Review of the fixed narrowband wholesale exchange line, call origination, conveyance and transit markets', 28 November 2003. Available at:

<http://stakeholders.ofcom.org.uk/binaries/consultations/750148/fixednarrowbandstatement.pdf>.

¹⁷ 'Review of the fixed narrowband services wholesale markets', 15 September 2009. Available at: http://stakeholders.ofcom.org.uk/binaries/consultations/wnmr_statement_consultation/summary/main.pdf.

Ofcom imposed a new set of SMP obligations on BT in place of those imposed under the 2003 Oftel Statement in relation to these markets. BT continued to be subject to obligations requiring it, among other things, to provide network access on reasonable request (Condition AAA1), to provide WLR services (Condition AAA10), and to ensure and to be able to demonstrate that its charges for network access were cost oriented (Condition AAA3.1).

- 2.12 Ofcom published a further review of the WFAEL markets on 20 December 2010 (the 2010 WFAEL Statement).¹⁸ Ofcom again found that BT continued to hold SMP in the WFAEL market in the UK excluding the Hull area and imposed a new set of SMP obligations on BT in place of those imposed under the 2009 Narrowband Statement. BT continued to be subject to obligations requiring it, among other things, to provide network access on reasonable request (Condition AAAA1), to provide WLR services (Condition AAAA10), and to ensure and to be able to demonstrate that its charges for network access were cost oriented (Condition AAAA3.1).¹⁹
- 2.13 BT's charges for SFIs and TRCs were subject to the cost orientation obligations under Conditions AA3.1/AAA3.1/AAAA3.1, as applicable, where they were purchased in relation to BT's network access services in the WFAEL market, including its WLR services, and were reasonably necessary for the use of those services.²⁰

Fixed Access Markets

- 2.14 In June 2014, Ofcom published its 2014 Fixed Access Market Reviews (the 2014 FAMR Statement).²¹ Ofcom found that BT continued to have SMP in the provision of WLA and WFAEL services and again imposed a number of SMP obligations on BT. In relation to BT's SFIs and TRCs, Ofcom removed the cost orientation obligations under Conditions FAA4.1 and AAAA3.1 with effect from 26 June 2014 and instead imposed charge controls on each service, which apply in the period following the relevant periods of the Disputes.

The PPC and Ethernet cases

- 2.15 On 22 March 2011 the CAT issued its judgment (the PPC Judgment)²² disposing of BT's appeal of Ofcom's 2009 determinations (the PPC Determinations)²³ of disputes

¹⁸ 'Review of the wholesale fixed analogue exchange lines markets', 20 December 2010. Available at: <http://stakeholders.ofcom.org.uk/binaries/consultations/review-wholesale-fixed-exchange/statement/statement.pdf>.

¹⁹ The wording of Conditions AAA3.1 and AAAA3.1 was equivalent to the wording of Condition AA3.1. The relevant SMP conditions are set out in full in Annex 4.

²⁰ In contrast to the relevant SMP conditions for LLU services, the SMP conditions imposed on BT in the WFAEL market did not explicitly require BT to provide ancillary services relating to BT's WLR services until an amendment was made to Condition AAAA10 under Ofcom's 2012 statement on the charge control review for LLU and WLR services (2012 LLU/WLR Statement). However, Ofcom explained in the 2012 LLU/WLR Statement that this amendment did not constitute a policy change, but rather was intended to clarify the status of WLR ancillary services and to ensure consistency with the LLU SMP conditions (see for example paragraph 5.18 of the 2012 LLU/WLR Statement).

²¹ 'Fixed access market reviews: wholesale local access, wholesale fixed analogue exchange lines, ISDN2 and ISDN30', 26 June 2014. Available at: <http://stakeholders.ofcom.org.uk/telecoms/ga-scheme/specific-conditions-entitlement/market-power/fixed-access-market-reviews-2014/statement/>.

²² *British Telecommunications plc v Office of Communication* [2011] CAT 5. Available at: www.catribunal.org.uk/files/1146_BT_Judgment_CAT5_220311.pdf.

²³ 'Determination to resolve disputes between each of Cable & Wireless, THUS, Global Crossing, Verizon, Virgin Media and COLT and BT regarding BT's charges for partial private circuits', 14

about the pricing of Partial Private Circuits (PPCs). The CAT dismissed BT's appeal and upheld Ofcom's PPC Determinations, concluding that BT's charges for certain PPCs, namely 2Mbit/s PPC trunk services, were in breach of its relevant cost orientation obligation. BT had therefore overcharged for those PPCs and was required to repay to the other parties in dispute the sums they had overpaid.

- 2.16 BT appealed the PPC Judgment to the Court of Appeal and on 27 July 2012 the Court of Appeal handed down judgment dismissing BT's appeal (the PPC Court of Appeal Judgment).²⁴
- 2.17 On 1 August 2014, the CAT issued its judgment (the Ethernet Judgment)²⁵ disposing of three appeals lodged by BT, by Sky and TalkTalk (jointly) and by CWW, Virgin and Verizon (jointly) in relation to Ofcom's determinations (the Ethernet Determinations) of disputes about the pricing of wholesale Ethernet services.²⁶ The CAT substantially upheld Ofcom's decision that BT's charges for certain wholesale Ethernet services were in breach of its relevant cost orientation obligation, but remitted two issues to Ofcom for determination.
- 2.18 In August 2015, Ofcom was notified that the Court of Appeal had granted BT permission to appeal the CAT's Ethernet Judgment. Ofcom was notified that TalkTalk had been granted permission to appeal by the Court of Appeal in November 2015. The appeals are currently scheduled to be heard by the Court of Appeal in March 2017.
- 2.19 The wording of each of the Cost Orientation Conditions is equivalent to the cost orientation obligations (Condition H3.1 and Condition HH3.1) considered by the CAT in the PPC Judgment and the Ethernet Judgment and by the Court of Appeal in the PPC Court of Appeal Judgment. We therefore consider that the PPC Judgment, the Ethernet Judgment and the PPC Court of Appeal Judgment are relevant to our determination of the Disputes and referred to them in the provisional conclusions for both disputes, as relevant. BT's pending appeal of the CAT's Ethernet Judgment is also relevant to our consideration of any repayment(s), as explained in Section 4.

The Communications Act 2003

- 2.20 The dispute resolution provisions of the EU common regulatory framework (CRF) are reflected in sections 185 to 191 of the Communications Act 2003 (the 2003 Act). We discuss these provisions in relation to the Disputes in Section 3.
- 2.21 The 2003 Act sets out the statutory duties and Community obligations that Ofcom must ensure consistency with when carrying out its functions.

October 2009. Available at:

http://stakeholders.ofcom.org.uk/binaries/consultations/draft_deter_ppc/PPC_final_determination.pdf.

²⁴ Case no: C3/2011/1683 *British Telecommunications plc v Office of Communications* [2012] EWCA Civ 1051. Available at:

http://www.catribunal.org.uk/files/1146_BT_Judgment_of_the_Court_of_Appeal_270712.pdf.

²⁵ *British Telecommunications PLC v Office of Communications; (1) British Sky Broadcasting Limited and (2) TalkTalk Group PLC v Office of Communications; (1) Cable & Wireless Worldwide PLC, (2) Virgin Media Limited and (3) Verizon UK Limited v Office of Communications* [2014] CAT 14.

Available at: http://www.catribunal.org.uk/files/1205-7_Ethernets_Judgment_CAT_14_010814.pdf.

²⁶ 'Disputes between each of Sky, TalkTalk, Virgin Media, Cable & Wireless and Verizon and BT regarding BT's charges for Ethernet services', 20 December 2012. Available at:

http://stakeholders.ofcom.org.uk/binaries/consultations/ethernet-services/annexes/Ethernet_FD.pdf

- 2.22 Our principal duty in carrying out our functions, as set out in section 3 of the 2003 Act, is to further the interests of citizens in relation to communications matters and to further the interests of consumers in relevant markets, where appropriate by promoting competition. We assess the consistency of our resolution of the Disputes with this and our other duties in Section 4.

Section 3

The Disputes

Issues in dispute

Submissions from TalkTalk

- 3.1 TalkTalk referred its dispute to Ofcom on 10 May 2016. TalkTalk alleged that BT's charges for TRCs and SFIs provided in the WLA market were not cost oriented during the period 1 April 2011 to 30 June 2014 (the Relevant Period in the TalkTalk Dispute), as required by SMP condition FAA4.1, and that as a consequence it had been overcharged by £ [X].²⁷ Specifically, TalkTalk argued in its dispute submission that BT's TRC and SFI charges were above FAC as well as DSAC.
- 3.2 TalkTalk noted that its cost assumptions were based on publicly available information from the 2014 FAMR Statement. TalkTalk claimed that "*Ofcom concluded that TRC and SFI prices were above FAC costs at least in the period from 1 April 2012 to 31 March 2014*".²⁸ TalkTalk submitted that it was very likely that BT's TRC charges were also above FAC before 1 April 2012 on the basis that BT's previous twelve months' costs were likely to have been similar to those in the years 2012/13 and 2013/14 which Ofcom had analysed. TalkTalk noted that, for some TRC and SFI services, BT's prices were above or not substantially below the prices in the years which Ofcom had analysed.²⁹
- 3.3 TalkTalk further argued that the nature of TRC and SFI services implied that DSAC is very similar to FAC, when taking into account the proper cost attribution of fixed and common wholesale network costs to these services (which it believed should be zero, as TRC and SFI services are essentially engineering labour).³⁰

Submissions from Sky

- 3.4 Sky referred its dispute to Ofcom on 22 June 2016. It alleged that BT had failed to set its charges for SFIs and TRCs provided in relation to its LLU and WLR services in accordance with the cost orientation obligations that applied to the provision of these services during the period 1 January 2009 to 30 June 2014 (the Relevant Period in the Sky Dispute). As a consequence, Sky claimed that it had been overcharged by BT during that period.
- 3.5 Sky explained that, due to the lack of publicly available information about BT's costs and revenues, it had not been able to calculate exactly the amount by which it had been overcharged by BT, but estimated it to be around £ [X].³¹
- 3.6 Specifically, Sky argued in its dispute submission that there was strong evidence to suggest that BT's charges for TRCs and SFIs were not cost oriented. It noted that in the 2014 FAMR Statement Ofcom had ordered a number of one off price reductions

²⁷ TalkTalk submission, paragraph 1.4.

²⁸ TalkTalk submission, paragraph 3.8.

²⁹ TalkTalk submission, paragraph 3.8.

³⁰ TalkTalk submission, paragraph 3.12.

³¹ Sky submission, paragraph 1.17.

“so that prices reflected Ofcom’s estimates of costs such that they were not excessive”.³²

- 3.7 Sky considered that Ofcom’s intervention in the 2014 FAMR Statement, and the findings underpinning that intervention, suggested that BT’s prices may not have been cost oriented.
- 3.8 Sky referred,³³ in particular, to (i) statements made by Ofcom in the 2014 FAMR Statement regarding the weakness of the competitive constraints exerted on TRC and SFI services provided by Openreach;³⁴ (ii) Ofcom’s finding that *“TRC prices (and revenues) are likely to be in excess of FAC”*;³⁵ and (iii) Ofcom’s view that *“BT does appear to be billing more than the actual time worked by its engineers, which suggests there is a risk of cost over-recovery as a result of its billing approach”*³⁶.
- 3.9 Sky also argued that due to the nature of TRC and SFI services, DSAC is likely to be very similar to FAC for these services as they are essentially engineering costs and as such cause little or no fixed and common network costs.³⁷

Submissions from BT

- 3.10 We provided BT with a copy the TalkTalk submission on 12 May 2016 and a copy of the Sky submission on 23 June 2016 and invited BT to comment.
- 3.11 BT made similar responses to both dispute submissions and rejected the claims that TRC and SFI charges were not cost oriented in the relevant periods of the Disputes.³⁸ BT argued that:
- 3.11.1 The methodology it used for calculating TRC and SFI prices in the relevant periods was consistent with case law and Ofcom commentary because:
- a) it used an appropriate cost standard, DSAC, as sanctioned by the CAT;
 - b) it was not required to set prices at FAC to comply with its cost orientation obligations;
 - c) cost orientation obligations give BT flexibility in price setting and should not be applied mechanistically, especially regarding historical claims; and
 - d) there is no basis for an assumption that prices set for a charge control should be the same as those that would comply with a cost orientation obligation, noting various Ofcom statements since 2010 which BT said made it clear that the change to the charge control in the 2014 FAMR Statement was a deliberate change in how prices should be set and

³² Sky submission paragraph 2.7.

³³ Sky submission paragraphs 2.8-2.10.

³⁴ Sky referred to paragraph 18.38 of the 2014 FAMR Statement.

³⁵ 2014 FAMR Statement, paragraph 18.89.

³⁶ 2014 FAMR Statement, paragraph 18.132.

³⁷ Sky submission, paragraphs 2.16 and 2.17.

³⁸ BT’s response dated 16 June 2016 (relating to the TalkTalk Dispute) and its response dated 29 July 2016 (relating to the Sky Dispute).

the level of those prices, with no judgment on whether previous prices complied with the cost orientation obligations.

- 3.11.2 The charges were below relevant DSAC estimates and EBIT margins were in line with those Ofcom reviewed in the 2012 statement on the charge control review for LLU and WLR services (2012 LLU/WLR Statement).³⁹
 - 3.11.3 FAC and DSAC are not the same. BT's analysis in pricing papers and published information for similar services demonstrates that DSAC is always higher than FAC for TRCs and SFIs.
 - 3.11.4 The claims raise policy risks in that they are effectively seeking to apply retroactively a charge control to a period when BT was subject only to cost orientation obligations.
 - 3.11.5 Ofcom does not, in any event, have the power to order retroactive payments in disputes.
- 3.12 BT requested that Ofcom reject both claims, and declare that BT had complied with the Cost Orientation Conditions in relation to charges for SFIs and TRCs during the relevant periods and that it had not overcharged TalkTalk and Sky.

Ofcom's duty to handle disputes

- 3.13 Ofcom has the power to resolve the following types of disputes referred to it by one or more of the parties:
- a) a dispute relating to the provision of network access (section 185(1) of the 2003 Act);
 - b) a dispute relating to entitlements to network access that a CP is required to provide by or under a condition imposed on him under section 45 of the 2003 Act between that CP and a person who is identified, or is a member of a class identified, in the relevant condition (section 185(1A) of the 2003 Act); and
 - c) a dispute between CPs, which is not an 'excluded dispute', relating to rights or obligations conferred or imposed by or under a condition set under section 45 of the 2003 Act or any of the enactments relating to the management of the radio spectrum (section 185(2) of the 2003 Act).
- 3.14 Section 186(1) and (2) of the 2003 Act provides that where a dispute is referred to Ofcom in accordance with section 185, Ofcom must decide whether or not it is appropriate to handle the dispute. Section 186(3) provides that Ofcom must decide that it is appropriate for it to handle a dispute falling within section 185(1A) or section 185(2) unless there are alternative means available for resolving the dispute which would be consistent with the requirements of section 4 of the 2003 Act and would be likely to result in prompt and satisfactory resolution.

³⁹ *Charge control review for LLU and WLR services*, 7 March 2012, paragraph 4.337:
<http://stakeholders.ofcom.org.uk/binaries/consultations/wlr-cc-2011/statement/statementMarch12.pdf>.

Ofcom's power when determining a dispute

- 3.15 Ofcom's powers in relation to making a dispute determination are limited to those set out in section 190 of the 2003 Act. Except in relation to disputes relating to the management of the radio spectrum, Ofcom's main power is to do one or more of the following:
- a) make a declaration setting out the rights and obligations of the parties to the dispute (section 190(2)(a));
 - b) give a direction fixing the terms or conditions of transactions between the parties to the dispute (section 190(2)(b));
 - c) give a direction imposing an obligation on the parties to enter into a transaction between themselves on the terms and conditions fixed by Ofcom (section 190(2)(c)); and
 - d) give a direction requiring the payment of sums by way of adjustment of an underpayment or overpayment, in respect of charges for which amounts have been paid by one party to the dispute, to the other (section 190(2)(d)).
- 3.16 A determination made by Ofcom to resolve a dispute binds all the parties to that dispute (section 190(8)).

Ofcom's duties when determining a dispute

- 3.17 When resolving a dispute under the provisions set out in sections 185 to 191 of the 2003 Act, Ofcom is exercising one of its regulatory functions. As a result, when Ofcom resolves disputes it must do so in a manner which is consistent with both Ofcom's general duties in section 3 of the 2003 Act, and (pursuant to section 4(1)(c) of the 2003 Act) the six Community requirements set out in section 4 of the 2003 Act, which give effect, among other things, to the requirements of Article 8 of the Framework Directive.⁴⁰

Accepting the Disputes

- 3.18 Having considered the Parties' submissions, we were satisfied that both disputes fell within section 185(1A) of the 2003 Act. Therefore, on 2 June 2016 (in the TalkTalk Dispute) and 18 July 2016 (in the Sky Dispute) we informed the relevant Parties of our decision that it was appropriate for us to handle the disputes for resolution in accordance with section 186(3) of the 2003 Act.
- 3.19 Although we did not consider it appropriate to join the Sky Dispute to the TalkTalk Dispute, as the scope of the TalkTalk Dispute does not cover all the issues raised by the Sky Dispute, we have adopted a consistent approach for the purposes of resolving each dispute, including by using the same analytical framework. As a consequence, we have considered it appropriate to set out our final conclusions for both disputes within this document.

⁴⁰ Directive 2002/21/EC of 7 March 2002 (as amended).

Scopes of the Disputes

3.20 On 2 June 2016 we set out the following scope of the TalkTalk Dispute:

“1) Whether the amount that BT charged TalkTalk for TRCs and SFIs in the relevant period was compliant with SMP Condition FAA4.1; and

2) If not, in order to resolve the dispute between the parties, what amount BT should have charged TalkTalk for TRCs and SFIs in the relevant period and whether any repayments should be made.”⁴¹

3.21 On 18 July 2016 we set out the following scope of the Sky Dispute:

“1) Whether the amount that BT charged Sky for TRCs and SFIs in the relevant period was compliant with Conditions AA3, FA3, AAA3, FAA4.1 and AAAA3, as applicable; and

2) If not, in order to resolve the dispute between the parties, what amount BT should have charged Sky for TRCs and SFIs in the relevant period and whether any repayments should be made.”⁴²

3.22 Reflecting their submissions, the Relevant Period in the TalkTalk Dispute is 1 April 2011 to 30 June 2014 and the Relevant Period in the Sky Dispute is 1 January 2009 to 30 June 2014. However, as explained in Section 2 above, cost orientation obligations relating to TRC and SFI services were removed from BT with effect from 26 June 2014. When considering whether BT's charges were compliant with the applicable Cost Orientation Conditions in Section 4 below, we have therefore considered the periods up to 26 June 2014.

3.23 We sought clarification from both TalkTalk and Sky as to exactly which TRC and SFI services each was in dispute about with BT.

3.24 Table 3.1 below summarises the TRC and SFI services that TalkTalk identified, alongside BT's charges throughout the Relevant Period in the TalkTalk Dispute. Tables 3.2 and 3.3 summarise the TRC and SFI services that Sky identified, alongside BT's charges throughout the Relevant Period in the Sky Dispute.

⁴¹ See https://www.ofcom.org.uk/about-ofcom/latest/bulletins/competition-bulletins/all-closed-cases/cw_01182.

⁴² See https://www.ofcom.org.uk/about-ofcom/latest/bulletins/competition-bulletins/all-closed-cases/cw_01185.

Table 3.1: TRC and SFI services and charges relevant to the TalkTalk Dispute, £ nominal

Financial year	2011/12	2012/13		2013/14	2014/15
Price periods	1 Apr 2011 – 31 Mar 2012	1 Apr 2012 – 7 Jun 2012	8 Jun 2012 – 31 Mar 2013	1 Apr 2013 – 31 Mar 2014	1 Apr 2014 – 26 Jun 2014
TRCs					
Hourly charge – normal working days	50.00	50.00	57.00	60.00	60.00
Hourly charge – other times ex Sunday/BH	85.00	85.00	85.50	90.00	90.00
Hourly charge – Sundays and BH	100.00	100.00	114.00	120.00	120.00
Visit charge – normal working days	105.00	105.00	115.00	120.00	120.00
Visit charge – other times ex Sunday/BH	130.00	130.00	143.50	150.00	150.00
Visit charge – Sundays and BH	150.00	150.00	172.00	180.00	180.00
TRC stores					
- internal pack	5.88	5.88	6.40	6.70	6.70
- external pack	13.70	13.70	14.90	15.60	15.60
- data ext kit	6.61	6.61	7.20	7.60	7.60
- broadband front plate	5.83	5.83	6.40	6.70	6.70
Internal and external NTE shift	-	-	115.00	120.00	120.00
SFI charges					
Frame Direct	105.00	105.00	115.00	120.00	120.00
End User modules					
- Base	105.00	105.00	125.00	130.00	134.25
- Network	75.00	75.00	75.00	80.00	80.00
- Frame	75.00	75.00	70.00	70.00	70.00
- Internal Wiring	50.00	50.00	40.00	40.00	40.00
- Internal Equipment	25.00	25.00	20.00	20.00	20.00
- Coop	25.00	25.00	20.00	15.00	0

Source: Ofcom, based on TalkTalk's response of 27 June 2016 to Ofcom's information request of 15 June 2016 (as clarified by TalkTalk's e-mail to Ofcom on 8 August 2016). The SFI charges listed cover both MPF and SMPF variants.

- 3.25 TalkTalk's dispute submission also listed the TRC stores item 'Block terminal 92A (for Redcare use)' as being under dispute. However, BT informed us that this item could only be ordered via WLR and is used where a hard wire terminal is required within premises to fit end customers' equipment i.e. alarm systems. BT said that this is not an option that can be ordered on WLA services and it therefore considered that it fell outside the scope of the TalkTalk Dispute as SMP Condition FAA4.1 relates to WLA services only.⁴³
- 3.26 TalkTalk provided evidence that it had been billed for this item on two occasions during the Relevant Period in the TalkTalk Dispute.⁴⁴ BT confirmed that this had been the case but explained that this was probably the result of a billing error. BT reiterated its position that Block terminal 92A could not be ordered on LLU lines.⁴⁵

⁴³ Email from BT to Ofcom dated 9 August 2016.

⁴⁴ Emails from TalkTalk to Ofcom dated 11 August 2016 and 12 August 2016.

⁴⁵ Email from BT to Ofcom dated 12 October 2016.

3.27 On this basis, we have not included Block Terminal 92A in the charges which we assess for compliance with BT's cost orientation obligation in relation to the TalkTalk Dispute.⁴⁶ If TalkTalk has concerns that it has inappropriately been charged for this service, it should raise the matter with BT in the first instance.

Table 3.2: TRC services and charges relevant to the Sky Dispute, £ nominal

Financial year	2008/09	2009/10		2010/11	2011/12	2012/13		2013/14	2014/15
Price periods	1 Jan 2009 – 31 March 2009	1 Apr 2009 – 16 Oct 2009	17 Oct 2009 – 31 Mar 2010	1 Apr 2010 – 31 Mar 2011	1 Apr 2011 – 31 Mar 2012	1 Apr 2012 – 7 Jun 2012	8 Jun 2012 – 31 Mar 2013	1 Apr 2013 – 31 Mar 2014	1 Apr 2014 – 26 Jun 2014
TRCs									
Hourly charge – normal working days	55	55	55	55	50	50	57	60	60
Hourly charge – other times ex Sunday/BH	85	85	85	85	85	85	85.50	90	90
Hourly charge – Sundays and BH	100	100	100	100	100	100	114	120	120
Visit charge – normal working days	85 ⁴⁷	85	105	105	105	105	115	120	120
Visit charge – other times ex Sunday/BH	110	110	130	130	130	130	143.50	150	150
Visit charge – Sundays and BH	130	130	150	150	150	150	172	180	180
Supplementary charges – visit other times ex Sunday/BH	25	25	25	25	25	25	28.5	30	30
Supplementary Charges – Visit Sundays and BH	45	45	45	45	45	45	57	60	60
Supplementary charges – per hour other times ex Sunday/BH	30	30	30	30	35	35	28.5	30	30
Supplementary charges – per hour Sundays and BH	45	45	45	45	50	50	57	60	60

Source: Ofcom, based on the Sky submission, Sky's clarification by e-mail on 12 August 2016 and BT's response of 1 September 2016 to Question 1 (Annex B) of the 3rd section 191 notice.

⁴⁶ As set out in Table 3.2, TRC stores items are not within the scope of the Sky Dispute.

⁴⁷ In its response dated 1 September to the 3rd section 191 notice, BT explained that before 17 October 2009 TRCs were charged as a visit charge and then hourly charges. From 17 October 2009 the visit charge and first hour of work were combined (i.e. the TRC visit charge covered the visit element and first hour of work).

Table 3.3: SFI services and charges relevant to the Sky Dispute, £ nominal

Financial year	2008/09	2009/10		2010/11		2011/12	2012/13		2013/14	2014/15
Price periods	1 Jan 09 – 31 March 09	1 Apr 09 – 12 Mar 10	13 Mar 10 – 31 Mar 10	1 Apr 10-31 Jul 10	1 Aug 10 – 31 Mar 11	1 Apr 11 – 31 Mar 12	1 Apr 12 – 7 Jun 12	8 Jun 12 – 31 Mar 13	1 Apr 13 – 31 Mar 14	1 Apr 14 – 26 Jun 14
SFI charges										
SFI1⁴⁸	144	144	144	144	160					
Frame Direct			95	95	95	105	105	115	120	120
End User modules										
- Base			95	95	95	105	105	125	130	134.25
- Network			95	95	95	75	75	75	80	80
- Frame			65	65	65	75	75	70	70	70
- Internal Wiring			50	50	50	50	50	40	40	40
- Internal Equipment			50	50	50	25	25	20	20	20
- Coop			35	35	35	25	25	20	15	0

Source: Ofcom, based on the Sky submission, Sky's clarification by e-mail on 12 August 2016 and BT's response of 1 September 2016 to Question 1 (Annex B) of the 3rd section 191 notice.

Interested Parties

3.28 Sky and Vodafone registered an interest in the TalkTalk Dispute whilst Vodafone and Verizon expressed interest in the outcome of the Sky Dispute.

Information relied on in resolving the Disputes

3.29 In resolving the Disputes, we have relied on:

- 3.29.1 TalkTalk's dispute submission dated 10 May 2016;
- 3.29.2 Sky's dispute submission dated 22 June 2016 (and email of 12 August clarifying the services under dispute);
- 3.29.3 BT's submissions dated 18 May 2016 and 16 June 2016 relating to the TalkTalk Dispute and its submissions dated 29 June 2016 and 29 July 2016 relating to the Sky Dispute;
- 3.29.4 BT responses (and subsequent clarifications) to Ofcom's first section 191 notice dated 15 June 2016 in the TalkTalk Dispute (the 1st section 191 notice);
- 3.29.5 BT responses (and subsequent clarifications) to Ofcom's second section 191 notice dated 15 July 2016 in the TalkTalk Dispute (the 2nd section 191 notice);
- 3.29.6 BT's responses (and subsequent clarifications) to Ofcom's third section 191 notice dated 15 August 2016 relating to both Disputes (the 3rd section 191 notice);⁴⁹

⁴⁸ In its response dated 1 September to the 3rd section 191 notice, BT explained that SFI1 was a single item that covered all work required for fault investigation and that at the request of CPs. BT broke this out into different modules that were separately charged (from 13 March 2010). The SFI1 product was withdrawn on 12 March 2011.

- 3.29.7 BT's response (and subsequent clarifications) to Ofcom's fourth section 191 notice dated 14 October 2016 relating to both Disputes (the 4th section 191 notice);
 - 3.29.8 Vodafone's response dated 24 August 2016 to the TalkTalk Provisional Conclusions;
 - 3.29.9 Gamma's response dated 25 August 2016 to the TalkTalk Provisional conclusions;
 - 3.29.10 TalkTalk's response dated 26 August 2016 to the TalkTalk Provisional Conclusions;
 - 3.29.11 BT's responses (and subsequent clarifications) dated 5 September 2016 to the TalkTalk Provisional Conclusions and its further submission dated 15 September 2016;
 - 3.29.12 BT's response dated 10 October 2016 to the Sky Provisional Conclusions;⁵⁰
 - 3.29.13 Vodafone's response dated 10 October 2016 to the Sky Provisional Conclusions; and
 - 3.29.14 Sky's response dated 11 October to the Sky Provisional Conclusions.
- 3.30 In addition to information provided by the Parties and interested third parties, our analysis refers to:
- 3.30.1 The TalkTalk Provisional Conclusions and the Sky Provisional Conclusions;
 - 3.30.2 previous Ofcom dispute determinations and relevant case law as cited in this Final Conclusions document; and
 - 3.30.3 data previously provided to Ofcom by BT in connection with the 2014 FAMR Statement and the 2016 BCMR Statement.

⁴⁹ In this response BT confirmed that information provided by BT for the purposes of the TalkTalk Dispute could also be used to resolve the Sky Dispute.

⁵⁰ Given that the Sky Provisional Conclusions set out our latest thinking on TRC and SFI costs, including comments made by BT in response to the TalkTalk Provisional Conclusions, we have in this document generally given precedence to BT's response to the Sky Provisional Conclusions, taking into account its comments on the TalkTalk Provisional Conclusions only where they have not been superseded by its response to the Sky Provisional Conclusions.

Section 4

Analysis and final conclusions

4.1 In this section we set out our assessment of the issues in dispute and our conclusions in relation to both the TalkTalk Dispute and the Sky Dispute.⁵¹ We begin by considering the appropriate analytical framework to use to assess the matters in dispute before applying our chosen framework to the facts of the Disputes.

Analytical framework

The Parties' views

Submissions from TalkTalk

4.2 TalkTalk submitted that during the Relevant Period in the TalkTalk Dispute, BT's charges for TRCs and SFIs were subject to SMP Condition FAA4.1. It submitted that, in line with the CAT's findings in the Ethernet Judgment, "*each individual charge as applied and published by BT should comply with the basis of charges obligation*".⁵²

4.3 In its dispute submission TalkTalk set out the basis for its belief that BT's charges for TRCs and SFIs were not cost oriented in this period, with reference to certain statements made by Ofcom in the 2014 FAMR Statement.⁵³ TalkTalk considered that the evidence from these statements "*strongly suggests that prices for all or many TRC/SFI services were significantly above FAC costs throughout or for much of the Relevant Period*".⁵⁴

4.4 TalkTalk argued further that "*the nature of SFI/TRC services implies that the DSAC cost (properly derived) is very similar to the FAC cost*".⁵⁵ TalkTalk stated that:

*"for a particular product there will only be a difference between DSAC and FAC costs if the product's cost stack includes an attribution of fixed and common wholesale network costs. However, SFI/TRC services are essentially engineering labour and as such cause no fixed and common network costs to be incurred and therefore should properly include no allocation of fixed and common wholesale network costs."*⁵⁶

4.5 TalkTalk therefore considered that the available evidence suggested that BT's charges for SFIs and TRCs were above DSAC as well as FAC costs.⁵⁷

4.6 In terms of the approach which Ofcom should take to assessing BT's compliance with its cost orientation obligation, TalkTalk stated that it considered the analytical

⁵¹ This takes into account any submissions received from the Parties or other stakeholders in response to the provisional conclusions in both Disputes.

⁵² TalkTalk submission, footnote 10.

⁵³ TalkTalk referred to paragraphs 18.38, 18.82, 18.83, 18.91 and 18.93 of the 2014 FAMR Statement. See TalkTalk submission, paragraphs 3.3 to 3.7.

⁵⁴ TalkTalk submission, paragraphs 3.3 to 3.9.

⁵⁵ TalkTalk submission, paragraph 3.12.

⁵⁶ TalkTalk submission, paragraph 3.12.

⁵⁷ TalkTalk submission, paragraph 3.1.

framework used by Ofcom in previous disputes relating to BT's compliance with its cost orientation obligations was generally appropriate for use in resolving the TalkTalk Dispute.⁵⁸ TalkTalk noted that Ofcom's normal methodology was to compare BT's charges with their respective DSACs. TalkTalk stated that it "*does not object to the use of the DSAC test as such to individual services*".⁵⁹ However, TalkTalk argued that:

*"on its own, that [DSAC] test is manifestly insufficient to meet Ofcom's duties to promote competition since if BT priced all its services at their DSAC that would result in multiple recovery of common costs. Condition FAA4.1 permits only "an appropriate mark-up for the recovery of common costs." Therefore a further test is required to prevent significant over-recovery of common costs and, without such a test, Ofcom's normal approach conflicts with the proper interpretation of the basis of charges obligations. In any event, as will be explained further below, TalkTalk believes that this difference in opinion may well be of limited practical significance in this dispute as the DSAC and FAC values for TRC and SFI services are likely to be very close to each other."*⁶⁰

- 4.7 In its response to the TalkTalk Provisional Conclusions, TalkTalk elaborated further on its view that Ofcom should adopt a further test in addition to the DSAC test. TalkTalk noted that in the Ethernet appeal⁶¹ it had proposed an "*aggregate FAC based test*". It explained that such a test would involve two stages: first Ofcom would apply the DSAC test and any charge above DSAC should be reduced to DSAC, second the charges for services (actual charges if below DSAC or charges adjusted down to DSAC) "*should be aggregated in proportion to the volume sold and compared to the aggregate FAC of all BT's [Ethernet] services*".⁶²
- 4.8 TalkTalk submitted that its proposed two-step test better balanced Ofcom's objectives of allowing BT the flexibility to set prices, whilst preventing BT from exploiting its SMP.⁶³

Submissions from Sky

- 4.9 Sky made similar observations to TalkTalk in relation to the application of the Cost Orientation Conditions and Ofcom's previous approach to assessing cost orientation disputes. Sky claimed that Ofcom's one-off adjustment in the 2014 FAMR Statement and the findings underpinning that statement suggested that BT's prices may not have been cost oriented during the Relevant Period in the Sky Dispute. Sky considered, on the basis of statements made by Ofcom in the 2014 FAMR Statement,⁶⁴ that "*there is strong evidence to suggest that BT's TRCs and SFIs charges during the Relevant Period were not compliant with the cost orientation obligations*" and that in 2014 Ofcom found "*these charges to be excessive and*

⁵⁸ TalkTalk submission, paragraph 2.12.

⁵⁹ TalkTalk submission, paragraph 2.12.

⁶⁰ TalkTalk submission, paragraph 2.12.

⁶¹ See Ethernet Judgment, paragraph 150.

⁶² TalkTalk's response to TalkTalk Provisional Conclusions, paragraph 2.8. TalkTalk did not identify the group of services for which the aggregate FAC should be calculated in the Disputes and compared against the charges for TRC and SFI services.

⁶³ TalkTalk response to the TalkTalk Provisional Conclusions, paragraphs 2.3 to 2.5.

⁶⁴ Sky referred to paragraphs 18.38, 18.87, 18.89, 18.91, 18.97, 18.132, 18.142 and 18.153 as well as Table 18.7 in Section 18 of the 2014 FAMR Statement. See Sky submission, paragraphs 2.7-2.10.

*ordered a number of one-off price reductions for TRCs and SFIs charges so that prices reflected Ofcom's estimates of costs such that they were not excessive".*⁶⁵

- 4.10 Sky did not indicate which cost standard Ofcom should apply to resolve its dispute, but considered that in this case "*a choice between DSAC and FAC may have limited practical significance because the DSAC and FAC for TRCs and SFIs are likely to be similar*".⁶⁶ Sky stated that:

*"This is because in calculating FAC, fixed and common wholesale network costs are attributed once, whereas in DSAC they are attributed more than once (leading to DSAC in totality being higher than FAC). For a particular product there will be a difference between DSAC and FAC, if the product's cost stack includes an attribution of fixed and common wholesale network costs. However, TRC/SFI services are essentially engineering labour and as such cause little or no fixed and common network costs to be incurred and therefore should include little or no allocation of fixed and common network costs. Therefore, there should be little difference between FAC and DSAC for TRCs and SFIs."*⁶⁷

Submissions from BT

- 4.11 BT noted that the "*basis of charges obligation does not stipulate the cost standard that a dominant provider should use when setting relevant prices*"⁶⁸ and submitted that the cost orientation obligations provided BT with a degree of flexibility when setting its charges. It argued that DSAC is the appropriate cost measure for Ofcom to use in resolving the Disputes and stated that this was the basis on which it had set charges for TRCs and SFIs during the relevant periods of the Disputes.⁶⁹
- 4.12 BT considered that both TalkTalk and Sky had mischaracterised the cost orientation obligations by effectively arguing that BT's compliance should be assessed by reference to a FAC cost standard⁷⁰ and that this effectively amounted to seeking to have a charge control retroactively applied to a period when BT was only subject to cost orientation obligations. BT considered that this gave rise to important policy risks.⁷¹
- 4.13 BT further rejected the claims of both TalkTalk and Sky that FAC costs and DSAC costs are similar for TRCs and SFIs. BT stated that:
- "The analysis in [BT's] pricing papers from 2012 and a review of published information for similar services demonstrates that it is always the case that DSAC is clearly higher than FAC for TRCs and SFIs."*⁷²
- 4.14 To evidence its view that DSAC costs are higher than FAC costs, BT pointed to its assessment in an internal pricing paper dated February 2012, in which the ratio of

⁶⁵ Sky submission, paragraph 2.7.

⁶⁶ Sky submission, paragraph 2.21.

⁶⁷ Sky submission, paragraph 2.17.

⁶⁸ BT submissions dated 16 June and 29 July 2016, paragraph 36.

⁶⁹ BT submissions dated 16 June and 29 July 2016, paragraphs 3, 37, 38, 41 and 53.

⁷⁰ BT submissions dated 16 June and 29 July 2016, paragraph 53.

⁷¹ BT submissions dated 16 June and 29 July 2016, paragraphs 5 and 6.

⁷² BT submissions dated 16 June and 29 July 2016, paragraph 5.

DSAC to FAC was approximately [\approx 1.2-1.4]. BT also provided a selection of higher DSAC/FAC ratios which related to copper provision and maintenance services in the three years preceding the 2014 FAMR Statement. BT argued that:

“TRC services are similar in nature to the maintenance and provision of copper lines and SFI services are related to the maintenance of copper lines. One would expect the fixed and common cost (“FCC”) of TRC and SFI services to be the same or similar to those of copper provision and maintenance services.”⁷³

- 4.15 BT further noted that it was important that the DSAC test was not applied mechanistically and that *“Ofcom must be particularly alert to the risk of a mechanistic application of a basis of charges obligation when considering historical compliance”*.⁷⁴ BT referred to the PPC Judgment in which the CAT stated that:

“[When] retrospectively seeking to determine compliance with [a basis of charges obligation], it would not be right for Ofcom to apply DSAC (or, no doubt, any test for the allocation of common costs) in a mechanistic way. That would overlook the fact that it is hard in practice for the regulated firm to comply absolutely with whatever test is being used to determine the appropriate allocation of common costs.

In other words, when retrospectively assessing compliance with Condition H3.1, OFCOM must guard against the possible injustices of a mechanistic application of a test for the allocation of common costs.”⁷⁵

- 4.16 In its responses to the TalkTalk Provisional Conclusions and the Sky Provisional Conclusions BT disagreed with our view that, due to the requirement set out in the Cost Orientation Conditions *“each and every charge”* should be cost oriented, and that we should *“consider BT’s charges for TRCs and SFIs on a disaggregated basis, i.e. to consider whether BT secured that each and every disputed charge was cost oriented”*.⁷⁶ In particular, BT argued that as certain of the SFI2 modules, which it termed ‘bolt-on’ modules (namely, the Network, Frame, Internal Wiring and Internal Equipment modules), cannot be purchased separately and must be purchased in conjunction with a Base module, Ofcom should combine each of those modules with the Base module when assessing the level of any overcharge for those modules.⁷⁷
- 4.17 BT’s submissions were unclear as to whether it considered that these modules should be combined at the stage of applying the DSAC test to assess whether there had been an overcharge, or only at the subsequent stage of considering whether to require repayment of any overcharge identified (and if so at what level).⁷⁸ We

⁷³ BT submissions dated 16 June and 29 July 2016, paragraphs 45.

⁷⁴ BT submissions dated 16 June and 29 July 2016, paragraph 35

⁷⁵ *British Telecommunications plc v Office of Communication* [2011] CAT 5 (PPC Judgment), paragraphs 304 and 305: http://www.catribunal.org.uk/files/1146_BT_Judgment_CAT5_220311.pdf.

⁷⁶ See for example paragraph 4.12 of the TalkTalk Provisional Conclusions.

⁷⁷ BT’s response to TalkTalk Provisional Conclusions, paragraph 6(c); BT response to the Sky Provisional Conclusions, paragraph 6.

⁷⁸ For example, in the heading on page 20 of its response to the Sky Provisional Conclusions BT stated that *“[g]iven they are bought in fixed proportions the DSAC assessment should be performed on the basis of combining modules”*, whilst the discussion in paragraphs 63 to 74 in the response that followed appeared to relate to calculation of the overcharge and repayments.

consider in the following paragraphs whether BT's arguments are such as to justify us assessing whether BT has overcharged for its SFI services by aggregating the relevant SFI2 modules (i.e. when applying the DSAC test). We then separately consider BT's arguments in relation to whether to we should order repayment of any overcharge at Step 4 of our analysis (see paragraphs 4.313 to 4.340 below).

4.18 BT argued that aggregation of the SFI2 modules was appropriate on the basis that:

4.18.1 Ofcom should take into account the economic and commercial reality of the structure of pricing across the SFI2 modules, whereby either a Base module or a Frames Direct module must be purchased before additional modules could be 'bolted on'. BT therefore argued that as modules are "*bought in fixed proportions*" the assessment of the appropriate level of repayment should be performed on the basis of combining modules.⁷⁹

4.18.2 Costs necessary for the execution of the 'bolt on' modules are recovered in the Base module. BT submitted that if the 'bolt on' modules were separate services in their own right the cost of that module would be more and that it therefore did not make economic sense to assess them separately.⁸⁰

4.18.3 Whilst SFI2 modules relate to different activities, these cannot be considered as discrete activities. BT said that in practice CPs are "*purchasing "an investigation" for which a bill is sent later depending on the modules the engineer needed to complete in order to remedy the customer problem. In requesting such an investigation, the CP generally pre-authorises Openreach to carry out a maximum set of modules.*" BT submitted evidence to show that in 2015/16, in close to 100% of requested investigations CPs pre-authorised Openreach to carry out the Base, Network and Frame modules (if required) and in 78% of cases CPs authorised Openreach to carry out all modules. BT argued that this "*strongly indicates that purchasing decisions are not driven by the structure of prices across the SFI modules, but by the combined price that would apply for the pre-authorised activity*".⁸¹

4.18.4 The facts of this case could, in BT's view, be distinguished from the facts in the PPC Judgment and Ethernet Judgment, where the CAT had upheld Ofcom's use of a disaggregated approach for assessing cost orientation. BT noted that:

- in the Ethernet appeals Ofcom justified a disaggregated approach in relation to connection and rental charges on the basis that the proportion of each purchased for an individual circuit would vary depending on how long the circuit remained live (i.e. a CP may purchase one connection plus two years of rental or one connection plus three years of rental). BT argued that this differed from the present case as for individual fault investigations a CP will purchase the Base module and 'bolt on' modules in fixed proportions.

⁷⁹ BT's response to TalkTalk Provisional Conclusions, paragraphs 34 and 35; BT's response to Sky Provisional Conclusions, paragraph 69.

⁸⁰ BT's response to TalkTalk Provisional Conclusions, paragraph 36.

⁸¹ BT's response to Sky Provisional Conclusions, paragraph 69.

- in the PPC Charges appeal Ofcom justified a disaggregated approach to main link and local end charges on the basis that although main links could not be purchased without a local end, the services were in separate economic markets. BT argued that in the present case SFI modules are all sold in the same economic market.⁸²

4.19 BT argued that its proposed approach would be a more appropriate and fairer assessment of the amount CPs might have been overcharged.

Ofcom's view

The appropriate test for cost orientation

- 4.20 This is not the first dispute that Ofcom has been asked to resolve in relation to cost orientation obligations imposed on BT in markets in which it has SMP. The wording of these obligations is broadly similar and Ofcom has developed an analytical framework that it has consistently used when assessing BT's compliance with these obligations.
- 4.21 In this analytical framework, the primary test for cost orientation is a comparison of each charge with the relevant DSAC. The use of DSAC as a charge ceiling is rooted in the theory of contestable markets, but it is a practical alternative to the large number of combinatorial tests required by the textbook theory.⁸³ For this reason, we describe DSAC as "*the practical application of underlying economic theory*". Using DSAC as a charge ceiling also allows more flexibility to vary relative charges than, for example, setting all charges at FAC. Whilst setting all charges at FAC would allow BT to recover all its costs, it would be very inflexible and, for this reason, could prevent an efficient price structure being attained.⁸⁴ DSAC therefore strikes a balance between practicality, flexibility and protection from excessive charges.⁸⁵ A DSAC standard can also be consistent with promoting entry and innovation (where relevant).
- 4.22 The CAT upheld Ofcom's use of this analytical framework for the purposes of assessing BT's compliance with cost orientation conditions in both the PPC Judgment and the Ethernet Judgment.⁸⁶ Given the clear similarities and overlaps between the issues in the Disputes and those considered in the PPC Determinations and the Ethernet Determinations, we consider that it would be appropriate to adopt

⁸² BT's response to Sky Provisional Conclusions, paragraph 66.

⁸³ In principle, the highest price that a multi-product firm could charge for any individual product or service in a contestable market is given by the efficient standalone cost (SAC) of that good or service. However, it is not only necessary that each individual charge is below its SAC, but the combined charges for each and every combination of services must also be below the SAC of that combination. Therefore, applying contestability theory directly using SAC as a ceiling would also mean applying a very large number of combinatorial tests.

⁸⁴ It may in any case be appropriate to allow BT to price up to FAC plus a small mark-up to provide some flexibility for BT to set charges before costs are fully known.

⁸⁵ The view that DSAC strikes an appropriate balance has been upheld on appeal. See, for example, paragraph 162 of the Ethernet Judgment, where the CAT quotes a passage from the earlier PPC Judgment in which it considered whether DSAC was an appropriate test for cost orientation purposes. The CAT concluded in that case that "*the use of DSAC as a test for cost orientation was not only entirely appropriate, but actually the only satisfactory available course open both to BT (in seeking to comply and show compliance with Condition H3.1) and to OFCOM (in seeking to monitor that compliance)*".

⁸⁶ PPC Judgment, paragraphs 277-307; Ethernet Judgment, paragraphs 120-195.

the same analytical framework for the purposes of determining the Disputes.⁸⁷ This framework is consistent with the approach that we said we would take to assessing compliance with BT's cost orientation obligation in the 2010 WLA Statement,⁸⁸ the 2010 WFAEL Statement⁸⁹ and previous guidance on cost orientation set out in Oftel's 2001 network charge control guidelines.⁹⁰

- 4.23 The considerations we have set out in previous disputes⁹¹ also support the use of DSAC as the relevant cost standard for the purposes of resolving the Disputes. These include the need to regulate in a stable and consistent way over time. This is important because, as we noted in the Ethernet Determinations, "*failure to act consistently without a sound justification can give rise to regulatory uncertainty which...can act against the longer term interests of citizens and consumers*".⁹²
- 4.24 BT raised concerns that TalkTalk and Sky were effectively arguing that BT's compliance with the Cost Orientation Conditions should be assessed against a FAC cost standard. For the reasons set out above, we do not consider that prices being above FAC would be sufficient to find that BT had failed to comply with its cost orientation obligations, unless they were also above DSAC. However, we do not understand TalkTalk to be arguing that we should apply a FAC cost standard instead of DSAC to individual services. Rather, we understand TalkTalk's position to be that DSAC costs for TRCs and SFIs, properly derived, will in fact be very similar to FAC. Similarly, Sky's position appears to be that a choice between the two cost standards may have limited practical significance in this case because it considers that the DSACs for TRCs and SFIs are likely to be similar to FAC.⁹³
- 4.25 TalkTalk did, however, argue that we should apply some form of additional test beyond DSAC, to ensure that BT does not over-recover its common costs across all services. We have considered and rejected the use of additional tests of this nature⁹⁴ in previous disputes relating to BT's cost orientation obligations. One reason is that tests of this kind, which require the application of a FAC ceiling at an aggregate level, tend to be complex due to the need to combine costs and volumes across a number of services. It will also often be difficult, in the event of a breach of an aggregate ceiling, to attribute that breach to individual services within the group subject to the

⁸⁷ In addition to the PPC Determinations and Ethernet Determinations referred to in Section 2, we applied the same analytical framework in determining a dispute between Level 3 Communications UK Limited and BT relating to the cost orientation of BT's charges for PPCs (the Level 3 Determination). Available at:

http://webarchive.nationalarchives.gov.uk/20160702162827/http://stakeholders.ofcom.org.uk/binaries/enforcement/competition-bulletins/open-cases/all-open-cases/cw_01118/CW1118_final_determination.pdf.

⁸⁸ In the 2010 WLA Statement we stated that "*the basis of charges obligation would provide BT with pricing flexibility between DLRIC and DSAC, thus ensuring its charges remained within an appropriate upper and lower bound, constraining it from setting excessive charges*" – see paragraph 6.135 (see also paragraphs 5.58 and 5.79).

⁸⁹ In the WFAEL Statement we explained that "*pricing between DSAC and DLRIC is a first order test for cost orientation*" – see paragraph 5.55.

⁹⁰ *Guidelines on the Operation of the Network Charge Controls from October*, 5 December 2001, http://webarchive.nationalarchives.gov.uk/20040104233440/http://www.ofcom.org.uk/static/archive/ofel/publications/ind_guidelines/pcrg1201.pdf

⁹¹ See for example the Level 3 Determination, paragraphs 3.10-3.13.

⁹² Ethernet Determinations, paragraph 9.160.

⁹³ We consider the similarity of DSAC to FAC in paragraphs 4.258 to 4.260 below when considering how to translate our FAC estimates to DSAC for the purposes of resolving the Disputes.

⁹⁴ I.e. tests based on comparisons of total revenues with total costs on an FAC basis, each summed across a large number of services.

ceiling. In addition, there is a danger of, in effect, imposing rate of return regulation by requiring actual revenues to equal actual costs at an aggregate level, with consequent harmful effects on efficiency incentives. In the Ethernet Judgment the CAT found that Ofcom had been correct to reject aggregated tests based on FAC, as proposed by Sky and TalkTalk, in the Ethernet Determinations. The problems identified by the CAT included, among others, that it was unclear how any overcharge identified by use of the aggregate FAC-based test could reliably be allocated to individual services.⁹⁵

- 4.26 In its response to the TalkTalk Provisional Conclusions, TalkTalk did not provide any new arguments to support its view that an aggregate FAC-based test should be used in addition to the DSAC test in order to demonstrate that we should change the view we took in the Ethernet Determinations, or that the issues identified by the CAT could be overcome in this case. TalkTalk failed to explain how such a test should in practice be carried out i.e. it failed to identify which bundle of services the aggregated TRC and SFI charges should be compared against and did not explain what should happen to the assessment of individual charges if the second part of the test indicated that the aggregated charges were above FAC.⁹⁶
- 4.27 The specific argument advanced by TalkTalk, that BT would over-recover common costs if it set all prices at DSAC, is not relevant to the appropriateness of the DSAC test. The potential for BT to over-recover costs in a market is a factor we take into consideration in deciding the appropriate remedies to implement in a market review, including whether to impose a charge control or a cost orientation obligation. The use of a DSAC test is a way of assessing whether there has been over-recovery of common costs in a manner consistent with Ofcom's decisions to impose the Cost Orientation Conditions.
- 4.28 In the TalkTalk Provisional Conclusions we also noted that it is unlikely that BT could set prices at DSAC for all services and still meet its charge control obligations, where these apply. In its response, TalkTalk argued that the effect of charge control obligations was not relevant because TRCs and SFI charges were not charge controlled during the relevant period.⁹⁷ However, we consider that the point remains valid because TRC and SFI services share some common costs with other services, which were subject to charge control conditions in the relevant period.
- 4.29 For the reasons set out above we do not accept TalkTalk's argument that it is necessary to apply an aggregate FAC test as part of our analytical framework to determine whether BT has over-recovered its common costs across all services.

⁹⁵ Ethernet Judgment, paragraphs 149-195. The CAT found that the test put forward by Sky/TalkTalk would give rise to serious problems of practicality and reliability in its application (paragraph 194). In addition, the CAT found that FAC was inappropriate because the development of the AISBO market was an important objective of cost orientation (paragraph 182). Ofcom also argued that using Sky/TalkTalk's proposed test would have been contrary to BT's legitimate expectation at the time (paragraph 195). As noted in Section 2, TalkTalk has appealed the Ethernet Judgment to the Court of Appeal.

⁹⁶ In its response to the TalkTalk Provisional Conclusions, TalkTalk claimed that it had set out the details of such a test in the Ethernet appeal. However, the test set out by TalkTalk there and again in its response to the TalkTalk Provisional Conclusions (paragraph 2.8) requires a comparison with "the aggregate FAC of all BT's BES and WES services". These are Ethernet services which are not the subject of the current disputes. TalkTalk has not explained how its proposed test could be made applicable to the Disputes.

⁹⁷ TalkTalk's response to the TalkTalk Provisional Conclusions, paragraph 2.10.

Assessment of cost orientation for each and every charge

- 4.30 BT has argued that we should assess SFI2 'bolt-on' modules by combining them with the base module, rather than assessing them as individual modules.
- 4.31 Our starting position is that the wording of the Cost Orientation Conditions requires that "each and every charge" be cost oriented. On its face, this means that if BT charges separately for different elements in a service, then each and every one of those charges has to be cost oriented.⁹⁸ We therefore need good reason to depart from this approach and, having considered the various arguments put forward by BT, we do not consider it would be appropriate to depart from the clear wording of the Cost Orientation Conditions in this case.
- 4.32 First, we note that BT's charges for the different SFI2 modules were quoted separately on the Openreach price list from their introduction in 2011 and they are itemised separately in its billing. As set out in the Ethernet Determinations, we consider it appropriate to place substantial weight on the fact that BT published separate charges in the Openreach price list during the relevant periods of the Disputes.⁹⁹
- 4.33 Second, we consider it relevant that the evidence available to us indicates that during the relevant period BT understood that the applicable cost orientation obligations applied separately to each SFI module. BT took the decision to introduce the modular pricing structure for SFI2, with separate published charges for the individual modules, during the Relevant Period of the Sky Dispute. Previously BT had a single SFI charge (SFI1), which incorporated all elements of its special fault investigation services. Internal pricing papers submitted by BT indicate that, following the introduction of the revised pricing structure, it assessed cost orientation for each SFI2 module on an individual basis (i.e. it did not aggregate the 'bolt-on' modules with the Base module).¹⁰⁰
- 4.34 Third, we consider that, contrary to BT's arguments, there is an economically meaningful distinction between BT's charges for the different SFI2 modules. This is because:
- SFI modules are not bought in fixed proportions;
 - competitive conditions may also differ between the modules depending on whether there is scope for them to be carried out by third parties; and
 - CPs may not all purchase the same mix of modules.

⁹⁸ Ethernet Judgment, paragraph 89. The wording of each of the Cost Orientation Conditions is equivalent to that of the SMP Conditions that were considered in the PPC Judgment and the Ethernet Judgment (Conditions H3.1 and HH3.1, respectively). In the PPC Judgment and the Ethernet Judgment the CAT found that in assessing BT's compliance with those SMP Conditions Ofcom was correct to consider, discretely, the charges for each relevant service offered by BT: PPC Judgment, paragraphs 209-228; Ethernet Judgment, paragraphs 81-101.

⁹⁹ Ethernet Determinations, paragraph 8.54. This was also considered a relevant factor by the CAT in the Ethernet Judgment (paragraph 90).

¹⁰⁰ BT has submitted a number of papers in which it proposed changes to SFI prices to internal review bodies for approval (see further below). Where these papers contain an assessment of the cost orientation of the relevant SFI2 charges (e.g. in its February 2012 and December 2012 pricing papers), the comparison is between individual charges and (BT's estimate of) individual DSACs. There is no indication that BT relied on aggregated DSAC figures.

- 4.35 Where CPs purchase services in varying proportions, it is important that each charge is individually cost oriented. This is because the prices will generally provide economically meaningful signals for potential purchasers to take into account in their decisions on matters such as which services to purchase and from which suppliers. BT's claim that SFIs are purchased in fixed proportions is not supported by the evidence provided to us. Whilst we accept that where a bolt-on module is purchased, it must generally be purchased together with a Base module,¹⁰¹ BT's own data indicates that in 2015/16, the Base module was purchased with other SFI modules on just 33% of occasions. This indicates that the Base module is not bought in fixed proportions with other SFI modules, and that the modules are used in markedly different proportions.¹⁰² Moreover, multiple modules (the Base module plus more than one of the bolt-ons) may be purchased in some circumstances (where it is not clear where the fault is located).¹⁰³
- 4.36 We also consider that there may be some differences in competitive conditions between the different modules. Indeed, BT argued in response to the 2013 FAMR Consultation that two of the SFI2 modules (Internal Wiring and Internal Equipment, which cover work on the customer side of the NTE) were wholly contestable as they could be provided by third parties under competitive tender and CPs could choose not to pre-authorise these modules.¹⁰⁴ By contrast, work on the Openreach network can only be carried out by an Openreach engineer and is not contestable. Whilst we do not agree that the former are fully contestable, there may be differences in competitive conditions between services which can in principle be provided by third parties and those which cannot. Given that there may be some potential for competition in the provision of the former to develop over the longer term, the price may provide a signal for entry to occur.¹⁰⁵

¹⁰¹ In BT's response to the TalkTalk Provisional Conclusions (paragraph 35) it indicated that the bolt-on modules may "more unusually" also be purchased with the Frames Direct module. However, it did not explain the circumstances in which this may occur and its later submissions only referred to the Base module. This indicates that it may not be the case that the bolt-on modules can only be purchased with the Base module.

¹⁰² For example, the Base module was purchased with the Network module on 17% of occasions, with the Internal Equipment module on 7% of occasions and with the Frame module on just 3% of occasions: BT response to the TalkTalk Provisional Conclusions, paragraph 38 and accompanying Table. Data provided for the 2014 FAMR Statement similarly showed that the modules were used in markedly different proportions and, apart from the Base module which is always purchased, other modules were purchased on between [x%] and [x%] of occasions (BT response dated 20 December 2013 to an Ofcom section 135 information request).

¹⁰³ Table 4 of BT's response to the Sky Provisional Conclusions shows that eleven different combinations were billed in 2015/16. One implication of BT's proposed aggregation of charges is that tests would be needed to ensure that none of the aggregate charges, for any of the combinations of modules actually or potentially purchased, were above the combined DSAC.

¹⁰⁴ See 2014 FAMR Statement, paragraph 18.14.

¹⁰⁵ We note that the Base, Network and Frame modules were pre-authorised in close to 100% of cases in 2015/16 and there appears to be no scope for competitive provision of the latter two or of the on-network components of the Base module. However, BT's response to the Sky Provisional Conclusions (Table 4) shows that these modules were not *billed* in fixed proportions. Indeed, it was very unusual for all three of the Base, Frame and Network modules to be billed (only [x%] of cases) and, whilst the Network module was billed [x] times as often as the Frame module, this was still on only [x%] of occasions. Given this, there may also still be scope for differential competitive effects on CPs purchasing them. In addition, in 2014, Openreach suggested that off-net base work could, in principle, be carried out by someone else, although it accepted that this was not currently clearly contestable given that off-net base work was wrapped up with on-network as part of the Base module

- 4.37 This view is consistent with evidence provided by BT on the different modules which were pre-authorized by CPs in 2015/16. Whilst the Base, Network and Frame Direct modules were pre-authorized in almost all instances, in 22% of cases the Internal Equipment module was not pre-authorized and in 13% of cases the Internal Wiring module was not pre-authorized.¹⁰⁶ This suggests that there may be instances in which CPs either choose to self-provide the services covered by the Internal Wiring and/or Internal Equipment modules, or to purchase these from an alternative provider.¹⁰⁷
- 4.38 Charges for individual modules may also have an effect on competition if different CPs purchase different mixes of modules. TalkTalk, Sky and BT (and other purchasers of SFI services) compete in downstream retail voice and broadband markets, and they will need to recover their costs from their downstream customers - including the costs of any SFI services they purchase. A CP which purchased a greater quantity of any modules for which prices were excessive would be at a disadvantage compared to its rivals.
- 4.39 We asked Openreach to provide details of the mix of modules purchased by TalkTalk, Sky and BT Retail. BT told us that "*BT Retail mainly use Broadband Boost and any small amount of SFI they would have consumed would have been purchased via BT Wholesale*".¹⁰⁸ Therefore, it was not able to provide disaggregated data on the volumes of each SFI module (and the different combinations) purchased by BT Retail. However, the fact that BT does not generally use the same SFI services as its competitors suggests that there may be some potential for the level of individual SFI charges to have a differential impact on BT, TalkTalk and Sky, and hence to be economically meaningful.¹⁰⁹
- 4.40 BT has also argued that the practice of pre-authorising modules means that purchasing decisions are driven by the combined price of the pre-authorized modules. In some cases at least, the ability to respond to price changes may be limited in the short-term because purchase is dependent on the nature of the fault in any particular case, and this is unknown until the engineer's visit. However, CPs have a choice over which modules to pre-authorise and we consider that this choice may be influenced by the individual module prices. The fact that some modules are pre-authorized more often than others is consistent with this.
- 4.41 Moreover, there is scope for longer-term responses to individual prices to be greater than short-term responses, i.e. even if in the short term CPs may pre-authorise most or all modules with BT, in the longer term they may take steps to find alternatives to

(see 2014 FAMR Statement, paragraph 18.14, footnote 1259). We therefore consider that the conditions listed in paragraph 4.34 apply also to these modules.

¹⁰⁶ BT's response to the Sky Provisional Conclusions, Table 4 (page 23).

¹⁰⁷ For example, in the 2014 FAMR statement (paragraph 18.32) we noted that TalkTalk also used third party engineers for some of its SFI spend.

¹⁰⁸ BT response of 14 September 2016 to clarification questions raised by Ofcom in relation to BT's response to the TalkTalk Provisional Conclusions.

¹⁰⁹ For example, suppose one CP purchases B + W and another (possibly larger) CP purchases just B and uses a contractor for W. If W is priced above DSAC, the smaller CP is disadvantaged even if the combination B + W is priced below DSAC. As noted earlier, some CPs appear not to pre-authorise the internal wiring and equipment modules in all cases. The proportions of occasions on which individual modules were actually billed also differ markedly.

some modules, for example by investing in improved diagnostic processes, depending on the prices of those modules.¹¹⁰

- 4.42 In addition, there is evidence from BT's internal pricing papers that the decision to introduce modular pricing was driven, at least in part, by an expectation that this would have an impact on competition, and that BT believes that SFI take-up is sensitive to prices, at least for some modules. A pricing paper dated 24 October 2007 noted that CPs were "[redacted]".¹¹¹
- 4.43 Another paper dated 27 February 2012, in relation to one of the SFI pricing options under consideration, noted that "[redacted]".¹¹² It was further noted that "[redacted]".¹¹³ Similarly, in a pricing paper dated 17 December 2012, BT referred to adjustments to module prices to "[redacted]".¹¹⁴
- 4.44 In relation to BT's argument that we should aggregate the SFI modules because the Base module and the other modules share costs, particularly travel time, we do not consider that the presence of shared or common costs means that the individual charges for the services which share them have no economic meaning.¹¹⁵ Indeed, nearly all BT's services share some common costs and the DSAC test is specifically intended to place a ceiling on the amount of common costs which can reasonably be recovered from "each and every charge".
- 4.45 Finally, BT has argued that the facts of this case are different to those considered in the PPC and Ethernet cases. As we have considered whether aggregation is justified in the circumstances of this case and do not rely on the CAT's conclusions in the PPC Judgment and Ethernet Judgment (though we do apply a consistent framework), we have taken account of any relevant differences in the facts of these Disputes in reaching our conclusions.
- 4.46 Accordingly, we have applied the requirements of the Cost Orientation Conditions separately to each and every disputed TRC and SFI charge.

¹¹⁰ For example, the 2014 FAMR Statement contains some indications that users are able to respond to SFI price changes, at least in the longer term. BT itself identified that 53% of TRCs and SFI were incurred where there was no fault on the BT line and that in some cases this was due to inadequate CP diagnostic processes (paragraph 18.14). Both Openreach and Sky supported the development of improved diagnostic processes, and we agreed that this could be beneficial. Our conclusion was that, by setting cost based charge controls, we would "*provide more efficient signals for other CPs in their own decisions on buying TRCs and SFIs, as well as investing in their own processes*" (paragraph 18.43).

¹¹¹ [redacted], 24 October 2007, page 5.

¹¹² [redacted], 27 February 2012, page 4. The paper was provided by BT as part of its submission of 16 June 2016 on the TalkTalk Dispute.

¹¹³ [redacted], 27 February 2012, page 4.

¹¹⁴ [redacted], 17 December 2012, page 2. The paper was provided by BT as part of its submission of 16 June 2016 on the TalkTalk Dispute.

¹¹⁵ Economic theory tells us that recovering fixed or common costs through charges causes distortions because it means that prices must be raised above marginal or incremental costs. It is, however, possible to set prices (Ramsey prices) which minimise these distortions. Ramsey prices are certainly economically meaningful, therefore, even if it is usually impractical to set them. More generally, the prices of individual services remain meaningful even where there are common costs because these prices determine the extent of the distortions caused by recovering common costs in charges.

Final conclusion on analytical framework

- 4.47 For the reasons set out above, we consider that DSAC is the most appropriate cost benchmark for our assessment of BT's compliance with its cost orientation obligations and that the services should be assessed on a disaggregated basis.
- 4.48 We therefore do not consider it necessary to deviate from the approach we set out in the provisional conclusions in both disputes and have used the following analytical framework to resolve the Disputes:
- Step 1: Has BT satisfactorily demonstrated that its relevant charges were cost oriented in accordance with the applicable Cost Orientation Conditions?¹¹⁶
- Step 2: If BT has not satisfactorily demonstrated compliance, were BT's relevant charges nonetheless below DSAC?
- Step 3: Are there any other relevant factors that we need to consider in order to determine whether BT's charges were compliant with the applicable Cost Orientation Conditions?
- Step 4: If the charges were not compliant, should we require BT to make repayments and if so what level should the repayments be?
- 4.49 In Step 1 we have assessed whether BT has demonstrated that each of its TRC and SFI charges was cost oriented. Where BT has failed to demonstrate that each of the charges was cost oriented then, in order for us to determine whether overcharging took place, we have assessed whether the relevant charges were nevertheless cost oriented in line with the requirements of the applicable Cost Orientation Conditions.
- 4.50 We have done this through Steps 2 and 3 of our analytical framework. At Step 2 we have assessed whether the charges were below DSAC. At Step 3 of our framework we have considered other relevant factors, to ensure that the DSAC test is not applied in a purely mechanistic manner. The specific factors to be taken into account beyond DSAC are dependent on the details of the case under consideration. We set out in paragraphs 4.283 to 4.310 the additional factors which we consider relevant to the Disputes.
- 4.51 Where we have found that BT has overcharged, we have continued to Step 4 to consider whether we should require BT to make repayments, and if so at what level.

Appropriate data for our analysis

- 4.52 As we explained in the provisional conclusions documents, in many cases we have utilised data contained in the RFS, including revenues, volumes and cost calculations, to assess whether products and services were compliant with cost orientation obligations. For example, in the Ethernet Determinations, we explained that in general we would rely on the published RFS for the purposes of determining historical disputes. This is because we would normally expect the RFS to constitute

¹¹⁶ Although in its initial dispute submission Sky only made reference to SMP Conditions FA3, FAA4.1 and AAAA3, Sky subsequently clarified that its dispute also related to BT's compliance with SMP Conditions AA3 and AAA3 (emails from Sky to Ofcom dated 5 July 2016 and 13 July 2016). The TalkTalk dispute submission only covers FAA4.1.

the best available information for us to use in fulfilling our regulatory functions, including dispute resolution.¹¹⁷

- 4.53 However, in other cases it might be necessary and appropriate to make adjustments to the data published in BT's RFS for resolving cost orientation disputes to ensure that, as far as possible, we accurately reflect BT's costs and revenues,¹¹⁸ including making use of alternative data sources.
- 4.54 In assessing whether BT's charges for TRCs and SFIs were cost oriented, we started by looking at BT's published RFS data for those services. To the extent that the RFS data was incorrect or obviously inappropriate, or where data is not available, we have made adjustments to the RFS data or used alternative data sources. This is explained in the relevant sections below, in which we apply our analytical framework to the facts of the case and set out our final conclusions.

Step 1: Has BT satisfactorily demonstrated that its relevant charges are compliant with the Cost Orientation Conditions?

- 4.55 The Cost Orientation Conditions required that BT secure and be able to demonstrate to Ofcom's satisfaction the cost orientation of each and every relevant charge for network access in the WLA and WFAEL markets.
- 4.56 In each of the disputes we therefore asked BT to provide any evidence that it considered "*demonstrates that BT has complied with [the Cost Orientation Conditions], as applicable in relation to TRCs and charges for SFIs during the [relevant periods of the disputes]*". When doing so we also asked BT to "*include any justification for the recovery of any common costs in charges for these products and services or for the attribution of common costs in the fully allocated costs ("FAC") and distributed standalone costs ("DSAC") of these products and services in the relevant period*".¹¹⁹

BT's justification for its charges

- 4.57 In its submissions¹²⁰ BT stated that it had set its TRC and SFI prices for relevant WLA and WLR services "*in compliance with its basis of charges obligation*". BT noted that "*Ofcom assessed that margins for TRCs prior to 2012 ... were in line with what it would expect i.e. ~20%*" and that "*when Openreach reviewed the price for TRCs and SFIs in 2012 and 2013, the proposed prices were below the relevant DSAC and the EBIT margin assessed in each pricing paper was in line with the EBIT margin Ofcom reviewed in the March 2012 Statement [2012 LLU/WLR Statement] (~20%)*".¹²¹

¹¹⁷ Ethernet Determinations, paragraph 11.22.

¹¹⁸ For example, in the PPC Determinations we made adjustments to RFS data in order to: (i) correct for volume errors; (ii) modify assumptions in the RFS that were not appropriate for the services in dispute; (iii) ensure that the revenues of a service were appropriately matched with the costs of the service; and (iv) exclude costs not relevant to the provision of the services in dispute.

¹¹⁹ Email from Ofcom to BT dated 15 August 2016 in relation to the Sky Dispute. We also sent an equivalent e-mail to BT in relation to the TalkTalk Dispute on 15 June 2016.

¹²⁰ BT submissions on 16 June 2016 and 29 July 2016.

¹²¹ BT submission dated 16 June 2016, paragraph 2 and BT submission dated 29 July 2016, paragraph 2.

- 4.58 BT provided a series of internal governance pricing papers to Ofcom which set out how changes to its prices for TRCs and SFIs were approved within BT during the relevant periods in the Disputes.¹²²
- 4.59 BT specifically relied on two pricing papers, dated 27 February 2012 (the February 2012 pricing paper) and 17 December 2012 (the December 2012 pricing paper). BT appeared to argue that it set prices by (i) assessing whether they were below DSAC, and (ii) assessing whether the EBIT margin was around 20%. As explained further below, BT told us that the cost data included in the February 2012 pricing paper was based on the data from the 2010/11 RFS and that cost data in the December 2012 pricing paper was based on the 2011/12 RFS.¹²³ In these papers, BT appears to have compared the prices as at 31 March 2011 and 7 June 2012 with the FAC and DSAC data from the February 2012 pricing paper, and the prices as at 7 June 2012 (again) and 31 March 2013 with the FAC and DSAC from the December 2012 pricing paper.¹²⁴
- 4.60 Tables 4.1 to 4.4 below summarise the price, FAC, DSAC, DSAC test results and implied FAC EBIT margin¹²⁵ for the TRC and SFI services included in the February 2012 and December 2012 pricing papers. The DSAC test is the ratio of price to DSAC, so a percentage over 100% implies that price is above DSAC and a percentage below 100% implies that price is below DSAC. The other pricing papers provided by BT did not contain an assessment of the prices against DSAC.

Table 4.1: TRC data derived from BT's February 2012 pricing paper

Price from:	Price, £	DSAC, £	FAC, £	DSAC test	EBIT margin
TRC visit element (normal days)					
1 April 2011	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
8 June 2012	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
TRC per hour (normal days)					
1 April 2011	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
8 June 2012	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Source: Ofcom - derived from BT's February 2012 pricing paper.

¹²² BT's response dated 29 June 2016 to the 1st section 191 notice and response dated 1 September 2016 to the 3rd section 191 notice.

¹²³ BT's response dated 22 July 2016 to question 1 of the 2nd section 191 notice.

¹²⁴ BT's submissions dated 16 June and 29 July 2016, paragraphs 48-51.

¹²⁵ We assume that price less FAC is broadly equal to the EBIT margin for these services as we understand that there is minimal capital employed associated with TRCs and SFIs.

Table 4.2: SFI data derived from BT's February 2012 pricing paper

Price from:	Price, £	DSAC, £	FAC, £	DSAC test	EBIT margin
SFI Base					
1 April 2011	[X]	[X]	[X]	[X]	[X]
8 June 2012	[X]	[X]	[X]	[X]	[X]
SFI frames					
1 April 2011	[X]	[X]	[X]	[X]	[X]
8 June 2012	[X]	[X]	[X]	[X]	[X]
SFI network					
1 April 2011	[X]	[X]	[X]	[X]	[X]
8 June 2012	[X]	[X]	[X]	[X]	[X]
SFI Internal Wiring					
1 April 2011	[X]	[X]	[X]	[X]	[X]
8 June 2012	[X]	[X]	[X]	[X]	[X]
SFI Internal Equipment					
1 April 2011	[X]	[X]	[X]	[X]	[X]
8 June 2012	[X]	[X]	[X]	[X]	[X]
SFI Co Op					
1 April 2011	[X]	[X]	[X]	[X]	[X]
8 June 2012	[X]	[X]	[X]	[X]	[X]
SFI Frames Direct					
1 April 2011	[X]	[X]	[X]	[X]	[X]
8 June 2012	[X]	[X]	[X]	[X]	[X]

Source: Ofcom - derived from BT's February 2012 pricing paper.

Table 4.3: TRC data derived from BT's December 2012 pricing paper

Price from:	Price, £	DSAC, £	FAC, £	DSAC test	EBIT margin
TRC visit element (normal days)					
8 June 2012	[X]	[X]	[X]	[X]	[X]
1 April 2013	[X]	[X]	[X]	[X]	[X]
TRC per hour (normal days)					
8 June 2012	[X]	[X]	[X]	[X]	[X]
1 April 2013	[X]	[X]	[X]	[X]	[X]

Source: Ofcom – derived from BT's December 2012 pricing paper.

Table 4.4: SFI data derived from BT's December 2012 pricing paper

Price from:	Price, £	DSAC, £	FAC, £	DSAC test	EBIT margin
SFI Base					
8 June 2012	[X]	[X]	[X]	[X]	[X]
1 April 2013	[X]	[X]	[X]	[X]	[X]
SFI Frames					
8 June 2012	[X]	[X]	[X]	[X]	[X]
1 April 2013	[X]	[X]	[X]	[X]	[X]
SFI Network					
8 June 2012	[X]	[X]	[X]	[X]	[X]
1 April 2013	[X]	[X]	[X]	[X]	[X]
SFI Internal Wiring					
8 June 2012	[X]	[X]	[X]	[X]	[X]
1 April 2013	[X]	[X]	[X]	[X]	[X]
SFI Internal Equipment					
8 June 2012	[X]	[X]	[X]	[X]	[X]
1 April 2013	[X]	[X]	[X]	[X]	[X]
SFI Co Op					
8 June 2012	[X]	[X]	[X]	[X]	[X]
1 April 2013	[X]	[X]	[X]	[X]	[X]
SFI Frames Direct					
8 June 2012	[X]	[X]	[X]	[X]	[X]
1 April 2013	[X]	[X]	[X]	[X]	[X]

Source: Ofcom – derived from BT's December 2012 pricing paper.

4.61 As BT said that the cost data included in the February 2012 and December 2012 pricing papers was derived from the RFS, we have assessed the appropriateness of that RFS data. In doing so, we first set out what cost information on TRCs and SFIs was included in the RFS during the relevant period before setting out BT's explanation of how it used the RFS data to derive cost data in the pricing papers.

Reporting of TRCs and SFIs in the RFS during the relevant periods in the Disputes

4.62 BT did not report cost data for each of the individual TRC and SFI services in its RFS.¹²⁶ Until the 2014/15 RFS, costs for TRC and SFI services were reported within Wholesale Residual in the RFS.¹²⁷ BT informed us that this meant that the service costs would not have been subject to the same level of audit review and audit opinion

¹²⁶ BT's response dated 1 September 2016 to question 3 (Annex B) of the 3rd section 191 notice.

¹²⁷ BT's response dated 6 July 2016 to question 5 of the 1st section 191 notice.

as other regulated markets.¹²⁸ The 2014/15 RFS reported costs for TRCs in the WLA and WFAEL markets and for SFIs in the WLA market.

- 4.63 During the relevant periods,¹²⁹ all SFI variants were included in two services within the RFS: (i) internal SFIs, and (ii) external SFIs.¹³⁰ Until the 2014/15 RFS all TRCs were included in one service in the RFS. In 2014/15 four services were reported relating to the TRCs (internal WLA TRCs, external WLA TRCs, internal WLR TRCs and external WLR TRCs).¹³¹
- 4.64 Table 4.5 summarises the unit FAC and unit DSAC data reported in the RFS during the period 2011/12 to 2014/15 that are relevant to the Disputes.

Table 4.5: Unit FAC and DSAC for SFI and TRC services reported in the RFS 2011/12 – 2014/15, £ nominal

	FAC £				DSAC £			
	2011/12	2012/13	2013/14	2014/15	2011/12	2012/13	2013/14	2014/15
SFIs								
External SFI	[X]							
Internal SFI	[X]							
TRCs								
Openreach TRCs	[X]	[X]	[X]		[X]	[X]	[X]	
WLA TRCs external				[X]				[X]
WLA TRCs internal				[X]				[X]
WLR TRCs external				[X]				[X]
WLR TRCs internal				[X]				[X]

Source: BT's response dated 6 July 2016 to question 5a of the 1st section 191 notice. The 2011/12, 2012/13 and 2013/14 data is based on the restated RFS rather than the originally published RFS for those years (with the exception of the TRC data in 2013/14 which is from the originally published RFS).

- 4.65 BT told us that there were a number of factors that meant that the unit cost data from the RFS could not be reliably compared across years and urged caution in using the data. These factors included changing policies in relation to SFI volumes, 'anomalies' in relation to SFI volumes in certain years and a lack of routinely reported volume data for TRCs in the regulatory reporting system.¹³²
- 4.66 BT did not provide unit costs for individual TRC and SFI services for the period 2008/09 to 2010/11 as it was unable to verify the relevant volume data for each service.¹³³ Instead, BT provided FAC and DSAC information on a total cost basis. Table 4.6 sets out the total FAC and DSAC provided by BT covering the period 2008/09 to 2010/11.

¹²⁸ BT's response dated 6 July 2016 to question 5 of the 1st section 191 notice.

¹²⁹ Except 2008/09 where BT did not report SFI services in the RFS.

¹³⁰ BT's response dated 1 September 2016 to question 4 (Annex B) of the 3rd section 191 notice.

¹³¹ BT's response dated 6 July 2016 to question 4 of the 1st section 191 notice. An internal residual TRC service was also included in the RFS.

¹³² BT's response dated 6 July 2016 to question 5a of the 1st section 191 notice.

¹³³ BT's response dated 1 September 2016 to question 4a (Annex B) of the 3rd section 191 notice.

Table 4.6: Total FAC and DSAC for SFI and TRC services reported in the RFS 2008/09–2010/11, £k nominal

	Total FAC (£)			Total DSAC (£)		
	2008/09	2009/10	2010/11	2008/09	2009/10	2010/11
SFIs						
External SFI		[X]	[X]		[X]	[X]
Internal SFI		[X]	[X]		[X]	[X]
TRCs						
Openreach TRCs	[X]	[X]	[X]	[X]	[X]	[X]

Source: BT's response dated 1 September 2016 to question 4a of the 3rd section 191 notice.

4.67 Table 4.7 shows the DSAC/FAC ratio for each service reported in the RFS during the relevant periods.

Table 4.7: DSAC/FAC ratios for SFI and TRC services reported in the RFS

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
SFIs							
External SFI		[X]	[X]	[X]	[X]	[X]	[X]
Internal SFI		[X]	[X]	[X]	[X]	[X]	[X]
TRCs							
Openreach TRCs	[X]	[X]	[X]	[X]	[X]	[X]	
WLA TRCs – external							[X]
WLA TRCs – internal							[X]
WLR TRCs – external							[X]
WLR TRCs – internal							[X]

Source: Ofcom, information relating to 2011/12 -2014/15 is derived from BT's response dated 6 July 2016 to question 5 of the 1st section 191 notice. The 2008/09, 2009/10 and 2010/11 data is from BT response dated 1 September 2016 to question 4 of the 3rd section 191 notice. Consistent with Table 4.5, the 2011/12, 2012/13 and 2013/14 data is from the restated RFS rather than the originally published RFS for those years (with the exception of the TRC data in 2013/14 which is from the originally published RFS).

4.68 The DSAC/FAC ratio for TRCs was over 3 in most years and the ratio for external SFIs was significantly lower at between [X]1.1-1.8].¹³⁴ We understand that one reason for the difference in the DSAC/FAC ratios is that SFI services are included within the 'access' increment in BT's LRIC model while TRC services are included in the 'other' increment.¹³⁵

BT's pricing papers

4.69 In this sub-section we set out BT's explanation as to how it used the RFS cost data in its pricing papers.

¹³⁴ We have used the DSAC/FAC ratios for external SFI services reported in the RFS since we consider that that these are more relevant for the purposes of resolving the Disputes.

¹³⁵ See for examples pages 7 to 9 of BT's 2014 LRIC Relationships and Parameters document: <http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2014/LRICModelRelationshipsandParameters2014.pdf>. In BT's LRIC model costs that are common across all increments are attributed wholly to each increment in order to calculate DSAC. Therefore, if the 'other' increment is relatively small compared to the access increment (which seems likely since fewer services are associated with this increment according to BT's documentation) then the common costs and hence the DSAC are likely to be relatively large compared to the FAC of the relevant services.

February 2012 pricing paper

- 4.70 BT told us that the FAC and DSAC data for SFI modules in the February 2012 pricing paper was estimated using FAC and DSAC data from the SFI cost component 'Special Fault Investigation' (CO989) reported in the 2010/11 RFS.¹³⁶ BT estimated the FAC and DSAC for each module by applying volume and duration information for each module to the RFS information.¹³⁷
- 4.71 BT was unable to locate the precise calculations used to support its estimates of FAC and DSAC for TRCs in the February 2012 pricing paper.¹³⁸ However, it said that if the methodology followed a similar approach to that used in the December 2012 paper, the FAC and DSAC estimates were likely to have been based on (i) FAC and DSAC for the component 'Time Related Charges' (CK981) from the 2010/11 RFS; (ii) breaking down these RFS costs between visit and hours-related elements; and (iii) deriving unit costs by reference to relevant volumes.¹³⁹
- 4.72 BT said that the DSAC/FAC ratio for TRC charges used in its pricing paper was [~~3~~ 1.2-1.4] which is consistent with the DSAC/FAC ratio for the component Special Fault Investigations from the 2010/11 RFS.¹⁴⁰

December 2012 pricing paper

- 4.73 BT was also unable to locate the precise calculations used to support its FAC estimates for SFIs in the December 2012 pricing paper, although it said this was likely to have been derived in a similar way to that in the February 2012 pricing paper. However, BT said that the DSAC/FAC ratio of [~~3~~ 1.2-1.4] used in the paper was derived from the component 'Special Fault Investigations' from the 2011/12 RFS. This appears consistent with Table 4.7 which shows that the DSAC/FAC ratio for the SFI services reported in the RFS in 2011/12 was [~~3~~ 1.2-1.4].¹⁴¹
- 4.74 BT said it had traced the calculations used to derive the unit FAC for TRC hours but had not been able to locate the calculations used for the unit FAC for the visit element of the TRC visit charge.
- 4.75 BT said the TRC hourly unit FAC was derived from the component Time Related Charges in the 2011/12 RFS. BT said that it analysed the FAC from the RFS between 'visit related costs' and 'hourly costs' based on management judgment.¹⁴² BT said it then analysed the hourly cost FAC estimate between time taken on TRC visits, TRC hourly costs and volume deals in order to obtain a FAC estimate for the hourly costs. It divided this hourly cost by the volume of TRC hours to derive the unit FAC.

¹³⁶ BT's response dated 22 July 2016 to question 1 of the 2nd section 191 notice.

¹³⁷ BT's response dated 22 July 2016 to question 1 of the 2nd section 191 notice.

¹³⁸ BT's response dated 22 July 2016 to question 1 of the 2nd section 191 notice.

¹³⁹ BT's response dated 22 July 2016 to question 1 of the 2nd section 191 notice.

¹⁴⁰ BT's response dated 22 July 2016 to question 1 of the 2nd section 191 notice.

¹⁴¹ The SFI service reported in 2011/12 was made up of two cost components: 'Special Fault Investigation' and 'Openreach Sales Product Management'. The Special Fault Investigation component referenced by BT represented almost all of the unit cost of the SFI services reported in the RFS.

¹⁴² BT's response dated 22 July 2016 to question 1 of the 2nd section 191 notice, page 5.

- 4.76 BT said that the DSAC was estimated by multiplying the unit FAC estimate by a DSAC/FAC ratio of [\approx 1.2-1.4], the same ratio as used for SFI services (and which was derived from the Special Fault Investigation component from the 2011/12 RFS).

Other pricing papers

- 4.77 In its initial response to TalkTalk's dispute submission, BT did not rely on pricing papers produced earlier than the February 2012 pricing paper. BT said that it reviewed TRC and SFI prices against DSAC in 2012 and 2013 and that it took "comfort from the assessment made by Ofcom in the [2012 LLU/WLR Statement] that the prices for TRCs and SFIs prior to June 2012 (as they applied since October 2009) were consistent with Openreach's basis of charges obligation".¹⁴³
- 4.78 In its response to the 3rd section 191 notice BT provided us with pricing papers dated October 2007 and March 2008 as well as referencing pricing papers already provided as part of its responses to the TalkTalk Dispute.¹⁴⁴ These papers related to TRCs and SFIs, but did not appear to contain any FAC or DSAC data.

Sky's views on the justifications put forward by BT

- 4.79 In its submission, Sky noted that it had sought comfort from BT that its charges complied with BT's SMP obligations. Sky stated that, without providing any evidence, BT had pointed to the fact that it had undertaken internal analysis which showed that its charges for SFIs and TRCs were below the DSAC ceiling. For the period prior to 2012, BT had sought to rely on the 2012 LLU/WLR Statement, in which Ofcom reviewed Openreach's returns for TRCs and indicated that they were in line with its normal expectations.
- 4.80 Sky stated that this did not address its concerns, noting that it had concerns regarding the reliability of the data used for BT's internal analysis and therefore was not content to rely on BT's internal assessment of its costs and revenues to determine compliance with its cost orientation obligations. In particular, Sky noted that:

"Ofcom had significant concerns about the reliability of BT's aggregate TRCs and SFIs data – as expressed by Ofcom in paragraphs 18.81 onwards of the 2014 FAMR Statement... In particular, Ofcom was concerned about the consistency and reliability of both the underlying absolute figures and any trends inferred from this data."

"As a result of these significant problems, Ofcom did not use Openreach's cost and revenue data to set the charge control. Instead, Ofcom derived its own estimate of underlying costs in setting the charge control."¹⁴⁵

- 4.81 In relation to Ofcom's "high level statements" about Openreach's TRCs returns, Sky noted that "Ofcom made clear in the 2014 FAMR Statement that its 2012 LLU/WLR Charge Control Statement did not go into a significant amount of detail in relation to

¹⁴³ BT's submission dated 29 July 2016, paragraph 49.

¹⁴⁴ BT's response dated 1 September 2016 to question 2 (Annex B) of the 3rd section 191 notice.

¹⁴⁵ Sky submission, paragraphs 2.13-2.15.

TRC data and that it was not appropriate to rely on the Earnings Before Interest and Tax ("EBIT") of TRCs in 2012".¹⁴⁶

Ofcom's views

Assessment against DSAC

- 4.82 As explained above, we consider that DSAC is the appropriate cost standard to use for the purposes of assessing BT's compliance with its cost orientation obligations. However, we consider that even on the face of its pricing papers BT has failed to demonstrate that each of its charges for TRCs and SFIs were below DSAC for the whole of the relevant period in each dispute. Both pricing papers show that the prices for [X] were above BT's estimate of DSAC before the introduction of the pricing changes assessed in those papers.¹⁴⁷
- 4.83 In any event, we do not consider that the DSAC tests set out in the two pricing papers referred to by BT (as shown in Tables 4.1 to 4.4 above) are sufficient to satisfactorily demonstrate that BT complied with its applicable cost orientation obligations throughout the relevant periods for the following reasons, which we discuss in more detail below:
- The RFS cost data is not robust;
 - The pricing papers do not cover the whole of the relevant periods; and
 - The pricing papers do not include costs for each and every TRC and SFI charge in dispute.

The RFS cost data is not robust

- 4.84 As set out above, BT told us that the FAC and DSAC information included in the pricing papers was derived from cost data reported in the 2010/11 and 2011/12 RFS, although it was unable to explain in all cases how the calculations were performed. Our starting point for assessing compliance with cost orientation obligations is normally BT's view of its costs as published in its RFS, since we would expect the RFS to contain the best available information for resolving disputes.
- 4.85 However, in the 2014 FAMR Statement we reviewed BT's volume, revenue and FAC data for TRCs and SFIs in the period 2009/10 to 2012/13, which includes data from the 2010/11 and 2011/12 RFS that BT relied on in its pricing papers. Following analysis of the RFS cost information in these years we found "*significant concerns with the reliability of this data*".¹⁴⁸ We said that we had "*identified various (and in some cases counter-intuitive) trends in both BT's cost and revenue data which BT has been unable to fully explain*", which meant that we had "*concerns with both the underlying absolute figures and the reliability of any trends inferred from this data*".¹⁴⁹
- 4.86 We have revisited the analysis carried out for the purposes of the 2014 FAMR Statement and for the reasons given in the 2014 FAMR Statement, we do not

¹⁴⁶ Sky submission, paragraph 2.13.

¹⁴⁷ £[X] price vs £[X] DSAC in the February 2012 pricing paper and £[X] price vs £[X] DSAC in the December 2012 pricing paper.

¹⁴⁸ 2014 FAMR Statement, paragraph 18.81.

¹⁴⁹ 2014 FAMR Statement, paragraph 18.82.

consider that the underlying RFS FAC data for 2010/11 and 2011/12, on which the FAC estimates in the pricing papers are based, are robust. We therefore consider that it would be inappropriate to rely on these FAC estimates for the purposes of resolving the Disputes.

- 4.87 In addition, we note that the relationship between FAC and DSAC in the RFS for TRC and SFI services, as shown in Table 4.7, appears inconsistent and counterintuitive. BT told us that the underlying labour costs for TRC and SFI services are the same (see paragraph 4.130) and given this, the significant difference in DSAC/FAC ratios between TRC and SFI services derived from RFS data does not appear credible. One reason for the difference in the DSAC/FAC ratios is that SFI services are included within the 'access' increment in BT's LRIC model while TRC services are included in the 'other' increment. This treatment has been in place since the SFI component was created in 2009/10.¹⁵⁰
- 4.88 Given that both TRCs and SFIs are network access services, it is not clear to us why they are included in different increments in BT's LRIC model. BT was unable to explain the rationale for this treatment of TRC and SFI components.¹⁵¹

Pricing papers do not cover the whole of the relevant periods

- 4.89 The two pricing papers relied on by BT are dated 27 February 2012 and 17 December 2012 and relate to the price changes made on 8 June 2012 and 1 April 2013. However, they do not enable an assessment to be made as to whether BT's charges in effect from the start of the period (1 January 2009) to 27 February 2012 (the date of the February 2012 pricing paper), or from 1 April 2013 to 30 June 2014 were cost oriented.
- 4.90 The pricing papers that BT provided which covered the period prior to 27 February 2012 either did not compare the relevant prices against costs at all or, where some form of cost analysis was presented, did not compare the prices against DSAC and did not explain how the cost estimates had been calculated. These pricing papers therefore do not demonstrate that BT's prices were cost oriented in the period prior to 27 February 2012. BT also made changes to its prices for the SFI Base and Coop modules on 1 April 2014. BT provided a pricing paper dated 2 December 2013 relating to these price changes, however the pricing paper did not present any cost analysis to support the changes.
- 4.91 Therefore, even if we considered that the cost estimates included in the February 2012 pricing paper and the December 2012 pricing paper were reliable (which for the reasons set out above is not the case), we would not consider that BT had demonstrated that the TRC and SFI charges were cost oriented over the whole period covered by the Disputes.

¹⁵⁰ BT's response dated 1 September 2016 to question 2 (Annex C) of the 3rd section 191 notice.

¹⁵¹ BT's response dated 1 September 2016 to question 2 (Annex C) of the 3rd section 191 notice. We recognise that in its pricing papers BT applied the DSAC/FAC ratio for SFIs to both TRC and SFI services when estimating DSAC. This appears reasonable given that the DSAC/FAC ratio for SFIs was derived from the access increment of BT's LRIC model. As explained further in Step 2 of our analysis below, while we do not consider that the FAC estimates in BT's pricing papers are robust, we do consider that the DSAC/FAC ratios which BT used in those papers to derive DSAC estimates appear broadly reasonable and in line with how we would expect DSAC to relate to FAC for TRC and SFI services.

Pricing papers do not include costs for each and every TRC and SFI charge in dispute

4.92 BT told us that it did not produce RFS information for each TRC and SFI product and service during the relevant periods although the pricing papers attempt to estimate costs for some individual services, as explained above. The February 2012 and December 2012 pricing papers appear to have included estimates of FAC and DSAC for each SFI charge but not all TRC charges. In particular, they included estimates of FAC and DSAC for TRC hourly and visit charges for normal working days but do not appear to have included cost information for TRC hourly and visit charges outside normal working days (e.g. Sundays and bank holidays), internal and external NTE shifts, TRC stores¹⁵² or for supplementary charges. The pricing papers therefore do not enable us to assess whether each and every TRC and SFI charge was cost oriented during the relevant period in each dispute. Again, this on its own means that we would not consider that BT had demonstrated that the TRC and SFI charges were cost oriented over the whole period covered by the Disputes.

EBIT margins

- 4.93 BT argued that in addition to its own assessment of the TRC and SFI charges against DSAC, it had taken "legitimate comfort" from "guidance" that Ofcom had provided that suggested BT's DSAC figures were appropriate.¹⁵³
- 4.94 BT said it "*took comfort that TRC and SFI prices complied with the basis of charges obligation from Ofcom's consideration of TRC and SFI prices during the relevant period, (i.e. in the 2012 Charge Control where Ofcom observed, in relation to the prices that applied from October 2009, that Openreach's returns were 'in line with our normal expectation for Openreach services, suggesting that they are not overcharging for TRCs')*".¹⁵⁴
- 4.95 BT argued that it "*was entitled to rely on this [statement] and set prices consistently with the margins that Ofcom has endorsed*" and noted that the EBIT margin assessed in both the February 2012 and December 2012 pricing papers was "*in line with the EBIT margin Ofcom reviewed in the March 2012 statement (~20%)*".¹⁵⁵
- 4.96 In its response to the Sky Provisional Conclusions, BT clarified that it "*has not argued that compliance with the EBIT margin as per the 2012 Charge Control is sufficient, by itself, to demonstrate compliance*". Rather it claimed that it had regard to a number of "different data points" when assessing whether the charges it was setting were cost oriented and that "*Ofcom's guidance reassured BT that its DSAC figures were appropriate*".¹⁵⁶
- 4.97 BT's submissions referred to Ofcom's 2012 LLU/WLR Statement, in which Ofcom set new charge controls for LLU and WLR services to apply from 1 April 2012.¹⁵⁷ As part

¹⁵² The February 2012 pricing paper includes one charge of £[redacted] for stores, which could relate to the stores item 'broadband micro filter' since the price of this item was £[redacted] from June 2012. The February 2012 pricing paper also includes an 'incremental cost' against stores of £[redacted] but it is not clear what this cost relates to.

¹⁵³ BT's response to the Sky Provisional Conclusions, paragraphs 80 to 83.

¹⁵⁴ BT submission dated 29 July 2016, paragraph 4.

¹⁵⁵ BT submissions dated 16 June and 29 July 2016, paragraphs 48-50.

¹⁵⁶ BT's response to the Sky Provisional Conclusions, paragraph 82.

¹⁵⁷ Charge controls for these services were imposed as a consequence of Ofcom's 2010 reviews of the WLA and WFAEL markets.

of its review, Ofcom considered arguments from CPs, including TalkTalk and Sky, that BT's TRCs and SFIs should be included within the scope of the LLU charge control. Ofcom was therefore considering whether it was appropriate to impose additional regulation, not whether BT was complying with the existing regulation. In the 2012 LLU/WLR Statement, we set out our reasoning for deciding that regulation of LLU TRCs and SFIs through cost orientation rather than a charge control remained appropriate at that time.¹⁵⁸

4.98 In relation to LLU TRCs, we explained:

“4.334 We note that the cross-market nature of TRCs and the nature of the service itself means that a charge control (by way of a basket or other means) may not be a sufficiently targeted intervention. For example, TRCs can be provided in the Leased Lines and WFAEL markets (in addition to the WLA market), making it difficult to identify robustly all LLU TRC costs (which are reasonably necessary for the use of LLU services). As noted in the March 2011 Consultation, we do not consider that separate reporting arrangements in Openreach's regulatory accounts would be appropriate or proportionate. Further, the structure of the charges, given the nature of the service, also means that charges can be variable. For example, TRC charges can vary depending on when the work takes place (i.e., on a weekday or during business hours or outside normal business hours).

...

4.336 We recognise that LLU (and WLR) TRCs can represent a significant item of spend for CPs (although we note that 2009/10 industry spend on LLU and WLR TRCs is likely to be approximately at least 30% less than what TTG stated in its March 2011 Consultation response for 2009/2010).

4.337 However, we have reviewed Openreach's overall returns (which are commercially confidential) for TRCs. We consider that these are in line with our normal expectations for Openreach services, suggesting that they are not overcharging for TRCs by Openreach.”¹⁵⁹

4.99 During the relevant periods the applicable Cost Orientation Conditions imposed ongoing obligations on BT to secure and be able to demonstrate that each of its relevant charges for network access was reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed.

4.100 As we set out in the TalkTalk Provisional Conclusions and Sky Provisional Conclusions, we do not accept that BT can demonstrate compliance with this requirement by showing that its overall EBIT margins for TRCs and SFIs were at or around a particular level, on the basis of the above statements by Ofcom. The context in which these statements were made was Ofcom's consideration of whether

¹⁵⁸ 2012 LLU/WLR Statement, paragraphs 4.322-4.369.

¹⁵⁹ Ofcom did not consider BT's returns on SFI services in the 2012 LLU/WLR Statement.

to impose a charge control on BT's TRCs, rather than a review of whether BT's charges for those services were cost oriented. The statements therefore cannot be understood as a finding by Ofcom that BT's individual charges for TRCs at the time of the 2012 LLU/WLR Statement were consistent with BT's cost orientation obligation (and Ofcom did not even consider BT's returns on SFIs). Nor do we consider that it would have been reasonable for BT to have considered that this constituted "guidance" by Ofcom on the cost orientation of BT's charges.

4.101 Indeed, we note that elsewhere in its submission BT argued that:

"Ofcom's discussion in various consultations and market review statements since 2010 make it clear that, in relation to TRCs and SFI, the change to a charge control obligation [in the 2014 FAMR Statement] represented a deliberate change in how prices should be set and the level of those prices, with no judgment being made on whether previous prices complied with the basis of charges obligation."¹⁶⁰ (emphasis added)

4.102 BT therefore appeared to accept that statements by Ofcom regarding the need (or otherwise) for the imposition of a charge control condition did not imply any judgement by Ofcom on BT's compliance with its cost orientation obligations in relation to the charges in question.

4.103 Furthermore, Ofcom's statements related to the overall level of returns which Openreach was making for TRCs. We consider that it would have been clear to BT at the time that an assessment of these returns would not be sufficient to establish compliance with the applicable Cost Orientation Conditions. As noted above, we set out in the 2010 WLA Statement and the 2010 WFAEL Statement that we would assess BT's compliance with its cost orientation obligations by assessing whether, as a first order test, BT's charges were between DLRIC and DSAC. The 2012 LLU/WLR Statement was published following the PPC Judgment, in which the CAT confirmed that DSAC was an appropriate test for these purposes.¹⁶¹ It is clear from the 2012 LLU/WLR Statement that Ofcom did not consider whether or not BT's TRC charges were above or below DSAC.

4.104 Finally, it is unclear to what extent BT placed reliance on Ofcom's statements in the 2012 LLU/WLR Statement in making pricing decisions. BT stated that it 'reasonably relied' on Ofcom's statements in assessing compliance in June 2012 and March 2013.¹⁶² However it is not clear from the contemporaneous pricing papers whether, and if so how, the EBIT margins were used by BT in assessing compliance with the Cost Orientation Conditions. Having said that, even if BT considered that it provided them with some comfort in this regards, we do not consider that this would have been an appropriate cross-check for BT to make. As the EBIT margin itself is dependent on the accuracy of the underlying FAC estimates (as are the DSAC estimates), it does not provide a means of checking whether the DSAC estimates are reasonable.

¹⁶⁰ BT submission dated 29 July 2016, paragraph 3(d).

¹⁶¹ See paragraph 4.22 and footnote 86 above.

¹⁶² BT submission dated 29 July 2016, paragraph 51(b).

Conclusion

4.105 For the reasons above we conclude that BT has not demonstrated to our satisfaction that its TRC and SFI charges were compliant with the applicable Cost Orientation Conditions throughout the relevant periods.

Step 2. If BT has not satisfactorily demonstrated compliance, were BT's relevant charges nonetheless below DSAC?

4.106 As explained above, as BT failed to demonstrate to our satisfaction that its relevant charges were cost oriented, at Step 2 of our analysis we have assessed whether the charges were nonetheless below DSAC.

4.107 In this section we first consider the appropriate data to use to resolve the Disputes. We then set out our estimates of FAC for TRC and SFI services, before explaining how we have translated our FAC estimates into DSAC estimates against which we assess BT's charges.

4.108 As explained below, the data that we have used to resolve the Disputes relates to hourly FAC for TRCs and SFI services. This provides the basis for the FAC estimate for TRCs in normal hours¹⁶³, but further steps are needed to derive FAC estimates for SFI modular services and other TRC charges, such as visit charges and those outside of normal hours. Our analysis is therefore set out as follows:

- i. Data for resolving the dispute;
- ii. Estimate of FAC for TRCs in normal hours;
- iii. Estimate of FAC for SFIs and other TRC charges;
- iv. Translation of FAC to DSAC.

4.109 In each section we outline the approach we took in our provisional conclusions,¹⁶⁴ summarise relevant responses received from stakeholders and set out our final analysis. We then set out the results of the DSAC test before moving on to Step 3.¹⁶⁵

Data for resolving the dispute

Approach in the provisional conclusions

4.110 As explained above, we would normally consider the RFS as the starting point for assessing BT's compliance with the cost orientation obligation. However, in this case we had concerns that the RFS data underpinning the FAC information in BT's pricing

¹⁶³ The hourly FAC estimates apply to both TRCs and SFIs. However, we refer to it as a TRC hourly cost stack since SFI services are charged on a modular basis, where each module represents a multiple of the hourly rate.

¹⁶⁴ Set out in full in the TalkTalk Provisional Conclusions published 12 August 2016 and the Sky Provisional Conclusions published 26 September 2016.

¹⁶⁵ This approach differs slightly from other sections of this document in order to appropriately consider and give context to the comments received on the approach we have taken to estimating the costs of TRCs and SFIs.

papers, and on which its DSAC estimates in those pricing papers were based, were not reliable for the following reasons:¹⁶⁶

- 4.110.1 BT informed us that there were a number of factors that meant that the RFS unit cost data could not be reliably compared across years and urged caution in using the data.¹⁶⁷ In addition, the RFS data were aggregated which did not allow us to assess whether each separate charge was cost oriented.¹⁶⁸
- 4.110.2 Although BT provided data for TRC and SFI services reported in the RFS, BT was unable to provide us with unit FAC or DSAC costs for those services in 2008/09, 2009/10 or 2010/11 due to i) SFIs not being reported in 2008/09, and ii) its inability to identify volume data for TRCs in the period 2008/09 to 2010/11 and for SFIs in 2009/10 and 2010/11.¹⁶⁹ We were therefore unable to rely on the RFS costs in those years.
- 4.111 We therefore did not consider that it would be appropriate to use the FAC or DSAC data reported in the RFS (or set out in BT's pricing papers) to assess whether TRC and SFI charges were cost oriented.¹⁷⁰ While we have adjusted RFS data in previous disputes to address particular concerns, the concerns we identified in this case related to the overall robustness and reliability of the data for TRC and SFI services. In the absence of reliable RFS data, we considered alternative sources of financial information in order to inform our view on BT's compliance with cost orientation.
- 4.112 In relation to TRC and SFI charges, we proposed to use information from Openreach's management accounts.
- 4.113 In the 2014 FAMR Statement we set a charge control for TRC services based on our FAC estimate of the underlying hourly costs using information sourced from Openreach's management accounts uplifted to allow for an estimate of overhead costs.¹⁷¹ We also used management accounts data to set the charge control for TRCs in the 2016 BCMR Statement.¹⁷² Since we relied on Openreach's management accounts data in the last two charge control decisions relating to TRCs, we considered it would be reasonable to use management accounts data as the basis for resolving the Disputes, including an allowance for other overhead costs not reported in the management accounts.¹⁷³
- 4.114 Given our concerns regarding the reliability of BT's RFS data, we considered that the management accounts data represented the best information available to us to

¹⁶⁶ See also paragraphs 4.84 to 4.88 above.

¹⁶⁷ See paragraph 4.65.

¹⁶⁸ See paragraph 4.62.

¹⁶⁹ See paragraph 4.66 and Table 4.6.

¹⁷⁰ As noted above and explained further below, we consider that the DSAC/FAC ratios reported in the RFS for SFI services provide a reasonable basis on which to estimate DSACs once we have reliable FAC estimates.

¹⁷¹ 2014 FAMR Statement, paragraph 18.102.

¹⁷² 2016 BCMR Statement, Volume II, paragraph 8.86.

¹⁷³ As noted in paragraph 4.136 below, the hourly costs from management accounts are reasonably stable over time, unlike the cost trends derived from the RFS data. Given that TRCs and SFIs are largely delivered using labour, and that we would expect hourly labour costs to be relatively stable over time, we consider that the management accounts are a more reliable basis to estimate the FAC of these services for the purposes of resolving the Disputes. However, we explain further below the weight we have put on the management accounts data.

assess whether BT's charges for SFIs and the hourly and visit charges for TRCs were cost oriented in the relevant periods.¹⁷⁴

- 4.115 The management accounts data did not include cost information relating to TRC stores. However, BT was able to provide some limited information on the costs of TRC stores items from its systems.

Responses to the provisional conclusions

- 4.116 BT said that it accepted that *"Ofcom cannot directly use the FAC for TRC and SFI services from BT's RFS, as there were inconsistencies in the way that the costs of these services were calculated (especially affecting the early years of the dispute period). In the main, these problems arose from not correctly identifying the direct pay costs for the TRC and SFI services. As a result, the total FAC for TRC and SFI services in the RFS were not in line with volumes and revenues, causing anomalies in the trend of margins and unit costs."*¹⁷⁵
- 4.117 BT added that *"although the level of direct costs contained errors and inconsistencies, the ratio between indirect and direct costs for the TRC and SFI services in the RFS is more reliable, as it is based on consistent application of published and audited methodologies for overhead costs. These methodologies apply equally to TRC and SFI components/services and to other components/services."*¹⁷⁶ BT also noted that Ofcom's concerns over the reliability of the RFS data did not extend to the use of DSAC/FAC ratios based on information from the RFS.¹⁷⁷
- 4.118 BT agreed in principle that it was appropriate to use the management accounts data to determine the Disputes.¹⁷⁸ However, BT noted that this data was general in nature, being based on the service delivery unit of Openreach, and was not specific to any particular services such as TRCs or SFIs.¹⁷⁹ BT added that while it now has a process to report management accounting data for TRCs and SFIs (as part of the Additional Financial Information that BT provides to Ofcom each year), this has only been the case since 2014/15.¹⁸⁰ As a result, BT considered that there were deficiencies with the management accounting data prior to 2014/15, when it started to routinely source this data.¹⁸¹
- 4.119 BT did not comment on the source of the data we used to estimate costs of TRC stores charges, but considered that this should also include relevant overhead costs.¹⁸²
- 4.120 Although TalkTalk agreed that in the circumstances Ofcom was correct in using management accounts data, it considered it *"highly undesirable that Ofcom is unable*

¹⁷⁴ As per footnote 174, this was because the cost trends in the management accounts appeared more stable than those in the RFS.

¹⁷⁵ BT's response to the Sky Provisional Conclusions, paragraph 30

¹⁷⁶ BT's response to the Sky Provisional Conclusions, paragraph 31

¹⁷⁷ BT's response to the Sky Provisional Conclusions, paragraph 12

¹⁷⁸ BT's response to the Sky Provisional Conclusions, paragraph 13.

¹⁷⁹ BT's response to the Sky Provisional Conclusions, paragraph 26.

¹⁸⁰ BT's response to the Sky Provisional Conclusions, paragraph 27.

¹⁸¹ BT's response to the Sky Provisional Conclusions, paragraph 56.

¹⁸² BT's response to the TalkTalk Provisional Conclusions, paragraph 33.

to rely on the RFS" and went on to set out several reasons it considered this increased the chance of error and cost over-estimation.¹⁸³

- a) *"There is a risk that some costs (e.g. overhead costs) are attributed more than once and so are recovered twice. This cannot happen in the RFS since all costs are attributed only once";*
- b) *"The management accounts are not audited and thus are less reliable";*
and
- c) *"BT can selectively highlight mistakes in Ofcom's approach that inflate costs whilst not highlighting mistakes that reduce costs. It is not possible for other stakeholders to counter-balance this bias given the lack of transparency."*

4.121 TalkTalk considered that BT's failure to provide robust RFS data favoured BT and provided an incentive to BT not to provide robust RFS data. It argued that Ofcom should therefore *"[i]nvestigate whether BT has breached its obligation to provide RFS data and/or be able to demonstrate that charges are cost orientated"* and that Ofcom should not *"accept BT's claims regarding mistakes in Ofcom's approach that are in BT's favour unless they are fully balanced by mistakes that are not in BT's favour"*.¹⁸⁴

4.122 TalkTalk considered that, as well as breaching its cost orientation obligations, BT had breached its financial reporting obligations set out in SMP condition OA2 and that the *"state of BT's financial reporting does not allow Ofcom to monitor effectively BT's compliance with the cost orientation obligations"*.¹⁸⁵

Ofcom's view

4.123 For the reasons set out in paragraphs 4.84 to 4.88 we do not consider that it is appropriate to use the FAC or DSAC data reported in the RFS to assess whether TRC and SFI charges were cost oriented. However, we consider it may be appropriate to consider the relative relationships between FAC and DSAC, or between different cost elements making up FAC, from the RFS to help resolve the Disputes where those relationships appear reasonable and where alternative sources of information are not available.

4.124 In relation to TRC and SFI charges, we consider that it is reasonable to use information from Openreach's management accounts as the basis for resolving the Disputes. This is because costs in the management accounts that relate to TRCs and SFIs are generally more stable than those in the RFS, and given that TRCs and SFIs are largely delivered using labour (and we would expect hourly labour costs to be relatively stable over time) we consider the stability of the management accounts mean they are a more reliable basis to estimate the FAC of TRCs and SFIs for the purposes of resolving the Disputes. Stakeholders agreed with using management accounts data to resolve the Disputes. However, we recognise that some of this information may be more reliable in 2014/15 than in earlier years, reflecting BT's comment that it only started routinely sourcing management accounting information

¹⁸³ TalkTalk's response to the TalkTalk Provisional Conclusions, paragraph 3.5.

¹⁸⁴ TalkTalk's response to the TalkTalk Provisional Conclusions, paragraph 3.6.

¹⁸⁵ TalkTalk's response to the TalkTalk Provisional Conclusions, paragraphs 4.4 and 4.5.

on TRCs and SFIs in 2014/15.¹⁸⁶ We explain below the weight we have put on information from the management accounts compared to alternative sources of data.

- 4.125 We explain below how we have used the management accounts data alongside other sources of data to derive what we consider to be a reasonable estimate of FAC and DSAC for each TRC and SFI service during the period of the Disputes. This includes a consideration of whether some costs may be counted twice where we have used more than one source of data.
- 4.126 In relation to TRC stores charges, we consider that the limited cost information BT was able to provide, is, in the absence of other information, a reasonable basis on which to resolve the dispute. We consider BT's representations about overheads associated with TRC stores below.
- 4.127 In response to TalkTalk's points, while the management accounts are not audited (unlike the RFS), we consider they represent an appropriate source of information to resolve the Disputes given the deficiencies in the RFS data for TRC and SFI services identified above. Our objective is to resolve the Disputes using the best information available to us. Where we make adjustments to the data in response to submissions and further information provided to us we do so only to the extent we consider this to be appropriate, regardless of whether or not these are in BT's favour.
- 4.128 With regards to TalkTalk's suggestion for Ofcom to open an own initiative investigation into whether BT has breached its SMP conditions we note that the extent to which BT has complied with its financial reporting obligations is outside the scope of the Disputes. We therefore focus our analysis on whether BT's TRCs and SFIs meet the requirements of the relevant Cost Orientation Conditions. We will consider whether any investigation into BT's compliance with its SMP conditions is appropriate outside of the Disputes, in accordance with our normal procedures.¹⁸⁷

Estimate of FAC for TRCs in normal hours

- 4.129 In this section we explain our approach to estimating the FAC for TRCs in normal hours. These estimates are then used to derive estimates for SFI charges and other TRC charges.

Approach in the provisional conclusions

- 4.130 In the provisional conclusions we explained that we had asked BT to provide cost information from its management accounts for each TRC and SFI service during the Relevant Period. BT said it is not possible to provide disaggregated cost information for each TRC and SFI product.¹⁸⁸ BT said that "*the vast majority of copper TRCs and SFIs are undertaken by B grade engineers. There is no distinction between the particular products or services and therefore the costs cannot be split by reference to*

¹⁸⁶ In particular, as explained below, we consider that the direct pay costs from the management accounts are reliable in all years but the indirect costs from the management accounts are not reliable before 2014/15.

¹⁸⁷ See Ofcom's Enforcement Guidelines, available at:

https://www.ofcom.org.uk/data/assets/pdf_file/0034/79846/enforcement_guidelines.pdf.

¹⁸⁸ BT response dated 8 July 2016 to question 7d of the 1st section 191 notice dated 15 June 2016.

[each TRC and SFI service].¹⁸⁹ BT provided a breakdown of the hourly cost stack applicable to both TRC and SFI services.¹⁹⁰

4.131 This hourly cost stack consisted of two broad sets of costs relevant to the provision of TRC and SFI services; direct pay costs (i.e. labour costs of the engineers carrying out the work) and some indirect costs related to engineering variable costs (such as vehicles and travel) and support costs (such as management costs).

4.132 The direct pay costs from BT's management accounts are set out in Table 4.8.

Table 4.8: Hourly direct pay costs for TRC and SFI services from management accounts, £ nominal

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
Salary	[X]						
Allowances	[X]						
Overtime	[X]						
NI	[X]						
Pension	[X]						
Engineering Pay cost B2	[X]						
Engineering Pay cost C1	[X]						
Weighted engineering pay cost Pay Cost ¹	[X]						

Source: BT response dated 8 July 2016 to question 7a-c of the 1st section 191 notice and BT response dated 27 July 2016 to question 3 of the 2nd section 191 notice. The 2008/09, 2009/10 and 2010/11 data is from BT responses dated 1 September and 14 September 2016 to question 5 of the 3rd section 191 notice.

Note ¹: In its 27 July 2016 response, BT said that its analysis of the engineering split in June 2016 suggested that the majority ([X]%) of TRC and SFI work was carried out by B2 engineers with the rest carried out by C1 engineers.

4.133 BT said that it was unable to locate direct pay costs for the years 2008/09 to 2010/11 to the same level of granularity as the years 2011/12 to 2013/14. To estimate pay costs for 2008/09 to 2010/11 BT applied the average percentage pay awards in those years, adjusted for average efficiency improvements made in the period 2011/12 to 2013/14.¹⁹¹

4.134 The indirect costs from the management accounts are set out in Table 4.9. For 2008/09 to 2010/11 BT said that it estimated the engineering variable costs and support costs, extrapolating data in later years by a combination of i) the ratio of these costs to pay, ii) the average productivity change in the period 2011/12 to 2014/15, and iii) the average percentage pay awards.¹⁹²

¹⁸⁹ BT response dated 8 July 2016 to question 7 of the 1st section 191 notice dated 15 June 2016.

¹⁹⁰ We set this out in Table 4.8 of the Sky Provisional Conclusions.

¹⁹¹ BT's response dated 1 September 2016 to question 5 (Annex B) of the 3rd section 191 notice.

¹⁹² BT's further response dated 14 September 2016 to question 5 (Annex B) of the 3rd section 191 notice.

Table 4.9: Indirect cost for TRC and SFI services from management accounts, £ nominal

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
Vehicle hire cost	[X]						
Travel & subsistence	[X]						
Tools	[X]						
Mobile	[X]						
Training	[X]						
Engineering variable cost	[X]						
Band 1 manager	[X]						
Band 2 manager	[X]						
Controls & direct desk support	[X]						
Total Support costs	[X]						
Total indirect costs	[X]						

Source: BT response dated 8 July 2016 to question 7a-c of the 1st section 191 notice and BT response dated 27 July 2016 to question 3 of the 2nd section 191 notice. The 2008/09, 2009/10 and 2010/11 data is from BT responses dated 1 September and 14 September 2016 to question 5 of the 3rd section 191 notice.

4.135 By adding the direct pay costs and the indirect costs per hour we derived the total hourly costs in Table 4.10.

Table 4.10: Hourly cost stack for TRC and SFI services from management accounts, £ nominal

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
Direct pay costs	[X]						
Indirect costs	[X]						
Total hourly cost	[X]						

Source: Derived from Tables 4.8 and 4.9

4.136 In the provisional conclusions we said that one advantage of using the management accounts data was that the hourly cost was reasonably stable over time, unlike the cost trends derived from the RFS data. We noted that the total hourly cost in Table 4.10 increased by an average of 2% in each year 2008/09 to 2014/15. We said that we would expect the hourly cost of labour to be relatively stable over time, with annual changes largely reflecting wage inflation and efficiencies.¹⁹³

4.137 We identified the following issues relevant to obtaining an estimate of FAC for TRC charges in normal hours:

- The data did not include all relevant costs;
- The data may have included overtime costs associated with charges for work outside normal hours; and
- The data reflected billed hours rather than actual hours worked.

¹⁹³ Sky Provisional Conclusions, paragraph 4.87.

The data did not include all relevant costs

4.138 The management accounts data for the relevant period did not include the following costs:

- Certain engineering variable costs and support costs;
- General overheads; and
- Return on capital employed.

4.139 Below we set out our consideration of these points in deriving our FAC estimates used in the provisional conclusions.

Certain engineering variable costs and support costs

4.140 BT said that some variable engineering costs and support costs were either understated or missing in certain years in the management accounts data. Under variable engineering costs, BT said that mobile costs were not available for years before 2014/15.¹⁹⁴ However, the cost estimates it provided included a small allowance for mobile costs in years before 2014/15.¹⁹⁵ On this basis we did not make any adjustment for mobile costs.

4.141 BT also said that: (i) training costs could be understated since the costs in the management accounts only related to external training and did not include internal training costs, and (ii) no allowance had been included for Service Management Centre costs. BT said this was consistent with the data it submitted on TRCs for the 2016 BCMR Statement.¹⁹⁶ In the provisional conclusions we considered that whilst these costs may be relevant to the provision of TRC and SFI services during this period, we did not make specific adjustments for these costs since it is not clear how material these would be and we did not have any data with which to make a reasonable adjustment. We also noted that costs might be included in the allowance which we made for general overhead costs, described below.

General overheads

4.142 BT said that no allocation had been made in the management accounts for general overheads such as Group Finance and Group HR costs.¹⁹⁷ We considered that it would be reasonable to include an allowance for general overhead costs since these would be expected to be common across a number of services and the Cost Orientation Conditions allow for an appropriate mark up for the recovery of common costs. This was also consistent with the approach in both the 2014 FAMR Statement and the 2016 BCMR Statement.¹⁹⁸

4.143 In our assessment of the appropriate overhead uplift used in the Sky Provisional Conclusions we noted that the information available to estimate an appropriate

¹⁹⁴ BT response dated 8 July 2016 to question 7b of the 1st section 191 notice.

¹⁹⁵ BT response dated 27 July 2016 to question 3 of the 2nd section 191 notice.

¹⁹⁶ BT response dated 8 July 2016 to question 7b of the 1st section 191 notice. BT's cost estimates provided on 27 July 2016 to question 3 of the 2nd section 191 notice in the TalkTalk Dispute did however appear to include an allowance for internal 'coaching' costs.

¹⁹⁷ BT's response dated 8 July 2016 to question 7c of the 1st section 191 notice.

¹⁹⁸ 2016 BCMR Statement, Volume II, paragraph 8.96; 2014 FAMR Statement, paragraphs 18.102-18.112.

allowance for general overheads was limited and we considered three sources of evidence:

- overhead analysis from BT used in the 2016 BCMR Statement;
- analysis provided by BT in response to the TalkTalk Provisional Conclusions; and
- analysis of general management and general support costs in the RFS.

Overhead analysis from BT used in the 2016 BCMR Statement

- 4.144 BT provided a breakdown of overheads associated with TRC services.¹⁹⁹ In order to estimate an uplift for overheads for the purposes of resolving the Dispute, we adjusted BT's analysis to remove overheads that were considered inappropriate in the 2016 BCMR Statement.²⁰⁰ The overheads excluded were [x], on the basis that it was not clear how these related to the provision of TRCs. These two categories of excluded overheads represented [x]% of BT's estimate of TRC overheads associated with WLA/WFAEL TRCs in 2014/15.
- 4.145 BT told us that its analysis of WLA/WFAEL TRC overheads for the 2016 BCMR Statement was derived from 2014/15 RFS data for regulated TRC services but that an adjustment had been made to remove any overheads that had also been included as 'indirect costs' in the management accounts cost stack.²⁰¹ We estimated that [x]% of overheads associated with regulated TRC services in the RFS were excluded in BT's analysis.
- 4.146 As a proportion of 2014/15 SFI and TRC costs for normal working hours (as amended as described in this section), the estimated overheads uplift using this approach is around 30% ([x]%).²⁰²

BT analysis in response to TalkTalk provisional conclusions

- 4.147 In 2014/15 there were six TRC services; four regulated (WLR and WLA internal and external) and two unregulated. The majority of costs relating to these services were attributed from cost component CK981 (Openreach Time Related Charges) and in 2014/15 BT said that the costs from this component were attributed to the six TRC services on the basis of revenue.²⁰³
- 4.148 BT provided an alternative version of its analysis for the 2016 BCMR Statement which replaced the attribution of costs from TRC components to TRC services based

¹⁹⁹ 2016 BCMR Statement, Volume II, paragraph 8.95.

²⁰⁰ Footnote 498 of the 2016 BCMR Statement, Volume II, sets out the approach to estimating overheads for TRCs associated with Ethernet services in that charge control.

²⁰¹ BT response to question 4ii dated 15 September 2016 to Ofcom questions dated 6 September 2016. BT noted in its response that it is difficult to accurately match costs between the REFINE system used to prepare the RFS and the management accounts.

²⁰² This is calculated as follows. BT's response to the 2016 BCMR Statement estimated overheads at £[x] per hour. Of this, Ofcom excluded £[x], giving £[x]. This represents [x]% of 2014/15 direct and indirect labour costs of £[x] (see Table 4.10).

²⁰³ Paragraph 24, BT's response to the TalkTalk provisional conclusions.

on revenue by one that it considered more closely reflected the way that costs were attributed to TRC components.²⁰⁴

- 4.149 As a proportion of 2014/15 SFI and TRC costs for normal working hours (as amended as described in this section), the estimated overheads uplift using BT's revised approach was [x]% to [x]%. However, after removing the overheads excluded in the 2016 BCMR Statement the overhead uplift range reduced to around [x]% to [x]%.²⁰⁵

Analysis of general management and general support costs in the RFS

- 4.150 We also considered the operating costs reported as being 'General Support' and 'General Management' in the RFS in the Relevant Period. We considered that these categories could give a reasonable estimate of 'general overheads', though we noted that they may include some types of costs that may not be considered overheads and exclude others that could be considered as overheads.
- 4.151 We considered the implied uplift on operating costs for General Support and General Management for i) TRC and SFI-specific components,²⁰⁶ ii) the WLA and WFAEL markets, and iii) Openreach overall. Over the period 2008/09 to 2014/15 the overhead uplift implied by this analysis was [x]% to [x]%.²⁰⁷ We noted that this range was also broadly consistent with the uplift of [x]% we applied to TRCs in the 2014 FAMR Statement, which was also based on an analysis of RFS data in the period 2009/10 to 2011/12.²⁰⁸
- 4.152 However, these estimates did not take into account i) costs that may already be included in the 'indirect costs' from the management accounts data, or ii) overhead categories that were excluded for the purposes of the analysis in the 2016 BCMR Statement. Making these adjustments consistent with the 2014/15 analysis, we said that the implied overhead uplift range reduced from [x]% to [x]% to approximately [x]% to [x]%. We considered it was likely to be appropriate to make these two adjustments over the period of the Sky Dispute but it was not clear whether the magnitude of the adjustment in prior years would be similar to that made in 2014/15.

Provisional conclusion on overhead uplift

- 4.153 In the Sky Provisional Conclusions, we considered that a single annual percentage uplift for general overheads would be appropriate for the purposes of resolving the dispute. We said that:²⁰⁹
- The analysis BT provided for the 2016 BCMR Statement, as adjusted by Ofcom for the purposes of that statement, supported an overhead uplift of around 30%.²¹⁰

²⁰⁴ BT's approach is explained in paragraph 4.106 of the Sky provisional conclusions.

²⁰⁵ Estimated by reducing the percentages by [x]%, as per paragraph 4.144.

²⁰⁶ CK981 (Openreach time related charges) and CO989 (special fault investigations) respectively. However, we excluded data relating to the SFI component giving its volatility over the period. See paragraph 4.112 of the Sky provisional conclusions.

²⁰⁷ With more than 80% of observations lying in this range.

²⁰⁸ See paragraphs 18.102 to 18.110, 2014 FAMR Statement.

²⁰⁹ See paragraphs 4.115 to 4.120 of the Sky provisional conclusions.

²¹⁰ We also noted that, although the 2014/15 analysis of TRC overheads prepared by BT for the 2016 BCMR Statement was the most detailed analysis available to us (at the time of preparing the Sky

- BT's alternative analysis would support an overhead uplift in the region of [x] % (after removing overheads excluded in the 2016 BCMR Statement).
- Analysis of RFS data over the dispute period supported an uplift of broadly 25% to 35%.
- The fact that the 25% to 35% range derived by us from the RFS overlapped with the range informed by BT's analysis of 2014/15 overheads of [x] % to [x] % gave us comfort that the range overall was broadly reasonable.

4.154 Within this range, we considered that, on balance, an uplift of 30% was appropriate for the purposes of resolving the Disputes and we did not consider that there was compelling evidence to suggest it would be more appropriate to apply an uplift at the higher or lower end of the range set out above as:

- BT's alternative attribution rule resulted in a relatively small increase to the implied uplift to TRC costs in 2014/15 compared to its analysis for the 2016 BCMR Statement, from around [x] % to [x] %.
- The additional analysis provided by BT only reviewed part of an allocation rule that affects a number of stages in BT's cost attribution system and we were not in a position to assess fully the appropriateness of the analysis undertaken and the revised allocations made by BT in the time available to resolve the Disputes.
- The period covered by BT's analysis (2014/15) incorporated only three of the 66 months covered by the relevant periods and it may not follow that any revised overhead uplift calculated for 2014/15 should be applied to all periods of the Disputes, especially given that BT's approach to attributing overheads has changed over time.²¹¹
- In any event, BT's analysis for the purposes of the 2016 BCMR Statement was only one piece of the evidence we used to estimate an appropriate uplift. We also considered data derived from the RFS which had the advantage of being contemporaneous with the relevant period covered by the Disputes.

Return on capital employed

4.155 The management accounts cost stack did not include an allowance for return on capital employed. From the RFS information provided by BT it appeared that the capital employed by TRC and SFI services was minimal and in many cases negative.²¹² Given the negligible levels of capital employed for these services we did not make an adjustment to the management accounts data to include a return on

Provisional Conclusions; BT did not provide this information until after we had published the TalkTalk Provisional Conclusions), it was nevertheless only one piece of evidence available to estimate an uplift.

²¹¹ See for example paragraphs 2.8 to 2.20 of Annex 28 of the 2016 BCMR Statement which discuss historical changes to the way BT attributed certain types of general overheads.

²¹² BT's response dated 6 July 2016 to question 5b of the 1st section 191 notice. BT's response indicated that return on capital employed represented between [x] % and [x] % of FAC for SFI services and between [x] % and [x] % of FAC for TRC services. In the 2014 FAMR Statement we also noted that these services had low levels of capital employed (see for example paragraph 18.75). Capital employed can be negative where there is negative working capital (e.g. creditors exceed debtors).

capital employed in our FAC estimate. We did not consider this would materially affect our assessment.

The data may have included overtime costs associated with charges for work outside normal hours

- 4.156 BT told us that the management accounts data included overtime for normal working days as well as bank holidays and weekends.²¹³ This was relevant because, as shown in tables 3.1 and 3.2, there are different hourly TRC charges for (i) normal working days, (ii) all other times except Sundays and bank holidays and (iii) Sundays and bank holidays. We understood that the overtime costs included in the management accounts data represented all overtime divided by all hours.
- 4.157 Ideally we would have assessed each of these three TRC hourly charges against a separate cost stack. However, the management accounts data provided by BT did not identify overtime or other costs related to different days. We understood that overtime can relate to normal hours working where an engineer is required to work outside of their scheduled hours. We considered that it was reasonable to assume that most work relates to normal hours, though BT was not able to provide information on hours worked at different times.²¹⁴ BT explained [redacted].²¹⁵
- 4.158 Therefore, in order to estimate FAC for TRCs in normal working hours we assumed that the hourly overtime cost from the management accounts was a reasonable estimate of the overtime associated with normal working hours, so we made no adjustment to remove any overtime costs when estimating the FAC for TRCs in normal hours. However, as explained further below, when estimating the FAC for TRCs outside of normal working hours, we excluded the overtime costs from the management accounts.

The data reflected billed hours rather than actual hours worked

- 4.159 Our analysis in the 2014 FAMR Statement identified that, on average, BT appeared to be billing for more hours than the actual hours worked by engineers for TRCs.²¹⁶ We considered that this risked BT over recovering its costs and applied an 18% reduction to TRC visit and hourly charges.²¹⁷ We asked BT to provide us with the ratio of actual engineering time spent working on TRCs to billed time for each year in the relevant periods. BT was unable to provide this analysis. Consistent with our analysis in the 2014 FAMR Statement, we therefore applied an annual 18% reduction to TRC hourly costs ("billing adjustment").²¹⁸

Provisional estimate of FAC for TRCs in normal hours

- 4.160 Our estimate of FAC for TRCs in normal hours was set out in Table 4.10 of the Sky Provisional Conclusions. This was based on the hourly costs from the management

²¹³ Email from BT to Ofcom dated 14 July 2016.

²¹⁴ Page 135 of the 2014/15 RFS has an analysis of TRC hours between normal hours, other hours and Sundays and bank holidays. We note that in this analysis BT says that it is not possible to split TRC hours between these different categories.

²¹⁵ BT's response dated 1 September 2016 to question 1 (Annex C) to the 3rd section 191.

²¹⁶ 2014 FAMR Statement, paragraph 18.132. This analysis was based on a sample of data from January to March 2014.

²¹⁷ Paragraph 18.146, 2014 FAMR Statement.

²¹⁸ As explained below we did not apply this adjustment to the (i) visit element of the visit charge or (ii) the SFI costs.

accounts (as per Table 4.10), uplifted by 30% for overheads and reduced by 18% for the billing adjustment.

Responses to the provisional conclusions

- 4.161 As described in the previous section, our estimate of FAC for TRCs in normal hours was formed by making assumptions about i) direct pay costs, ii) other non-pay costs (e.g. indirect costs from the management plus an allowance for general overheads), iii) the exclusion of a return on capital employed and iv) making a billing adjustment.
- 4.162 No respondents commented on our use of direct pay costs provided by BT from its management accounts and set out in Table 4.8, or our proposal to exclude an estimate of return on capital employed from our FAC estimate. There were also no comments on our proposal to apply the billing adjustment to TRC hourly charges (one respondent commented on its application to the visit charge, which we consider in the next section) or our proposal not to make an adjustment for overtime costs.
- 4.163 Respondents did comment on our estimate of other non-pay costs in the FAC cost stack and the rest of this section summarises the responses received in relation to this area.
- 4.164 As described above, in the provisional conclusions we estimated other non-pay costs by including i) indirect costs from the management costs and ii) adding a 30% uplift on pay and indirect costs from the management accounts for general overheads. In the rest of this document we use the term 'other non-pay' costs to describe all other costs associated with TRCs and SFIs (i.e. the total of indirect costs and overheads).
- 4.165 Respondents provided specific comments on the following areas of our estimation of other costs:
- Use of indirect costs from the management accounts.
 - General overheads uplift of 30%.
 - Alternative approaches to estimating other costs.

Indirect costs from the management accounts

- 4.166 BT said that the management accounts data, set out in Table 4.10 above, shows that, while direct pay costs were relatively stable over the relevant period, indirect costs were much lower in earlier years than later years.²¹⁹ BT noted that the uplift for indirect costs from the management accounts over direct pay varies between [X]% and [Y]% over the relevant period,²²⁰ with the ratio of indirect costs to direct pay lower in earlier years. BT said that this was contrary to evidence from the RFS (summarised in paragraphs 4.189 to 4.192 below) which shows higher ratios of other non-pay costs to direct pay in the earlier years compared to later years.²²¹
- 4.167 BT said that the management accounts costs were not consistently calculated over the relevant period, noting that BT had to extrapolate some indirect costs such as 'controls and direct support' costs and 'training' costs for the years 2008/09 to

²¹⁹ BT response to the Sky Provisional Conclusions, paragraph 21a.

²²⁰ BT response to the Sky Provisional Conclusions, paragraph 28.

²²¹ BT response to the Sky Provisional Conclusions, paragraph 23c.

2012/13 as data did not exist for these years.²²² BT said the process of identifying and extracting data in years prior to 2014/15 (when it started to routinely prepare management accounts for TRCs) was not robust and that it was difficult to identify the correct indirect costs on a consistent basis over the relevant period.²²³

- 4.168 BT suggested that Ofcom should consider whether there was more stable information available that could be reliably used to estimate FAC for the purposes of resolving the Disputes.²²⁴ We summarise BT's suggested approach under the heading 'alternative approaches to estimating other costs' later in this section.

General overheads uplift of 30%

- 4.169 TalkTalk said that it considered the 30% overhead uplift to be too high.²²⁵ TalkTalk said that its spend on similar cost categories was significantly lower.²²⁶ TalkTalk argued that overhead costs "*may therefore be overstated since irrelevant costs are included and/or some costs are included in the SFI/TRC cost stacks and again in the general overhead category*".²²⁷
- 4.170 Although Vodafone accepted that general overhead charges should constitute a recoverable cost component, it considered that an uplift of 30% was too high. Vodafone considered that the vast majority of the TRC and SFI cost base is labour-related and cannot be compared to a physical product which attracts much higher overheads.²²⁸ Vodafone argued that over the relevant period, BT allocated general overhead costs across regulated services and that attributing a further allocation of overheads to TRC and SFI services would allow BT to over-recover. Vodafone was therefore of the view that the onus should be on BT to positively demonstrate that there was an overhead deficit during the period.²²⁹
- 4.171 BT considered that the general overheads uplift should be greater than 30%. BT argued that Ofcom had systematically rejected evidence which indicated that FACs were higher than those estimated by Ofcom.²³⁰ It noted that Ofcom applied an uplift of [X]% for general overheads in the 2014 FAMR Statement and that the analysis provided by BT in response to the TalkTalk Provisional Conclusions (which modified its analysis for the 2016 BCMR Statement) suggested a [X]% uplift for general overheads.²³¹ BT provided comments on each of the three sources of evidence we

²²² BT response to the Sky Provisional Conclusions, paragraph 23a.

²²³ BT response to the Sky Provisional Conclusions, paragraph 26.

²²⁴ BT response to the Sky Provisional Conclusions, paragraph 29.

²²⁵ TalkTalk response to the TalkTalk Provisional Conclusions, paragraph 3.7.

²²⁶ TalkTalk response (10 March 2008) to the Openreach Financial Framework review:

http://webarchive.nationalarchives.gov.uk/20160702162827/http://stakeholders.ofcom.org.uk/binaries/consultations/openreachframework/responses/Talk_Talk_Group.pdf (this is non-confidential version - the data is included in the confidential version supplied to Ofcom by TalkTalk).

²²⁷ TalkTalk response to the TalkTalk Provisional Conclusions, paragraph 3.7.

²²⁸ Vodafone response to the TalkTalk Provisional Conclusions, paragraph 5.1 and its response to the Sky Provisional Conclusions, paragraph 5.1.

²²⁹ Vodafone response to the Sky Provisional Conclusions, paragraph 5.1.2.

²³⁰ BT's response to the Sky Provisional Conclusions, paragraph 17.

²³¹ BT also referenced that the RFS data used by BT in pricing papers suggested that the prices considered in 2012 and 2013 were compliant and that proxy FACs indicated that the FAC and DSAC for similar activities were much higher than those calculated by Ofcom.

considered in the provisional conclusions (see paragraph 4.143 above). We summarise BT's response on each of these areas below.²³²

(i) Overhead analysis from BT used in the 2016 BCMR Statement

- 4.172 BT noted that its analysis of overheads for TRC services in 2014/15 that it provided to support the 2016 BCMR Statement was based on comparing information from the RFS with information from the management accounts. It said that this comparison is difficult since the nature of the two sets of data is different.²³³
- 4.173 BT added that it is not clear how the quantification of 2014/15 overheads using this approach would change for earlier years as a result of changes in the identification of management accounts indirect costs.²³⁴
- 4.174 BT noted that Ofcom adjusted BT's analysis in the 2016 BCMR Statement to exclude costs relating to the provision [X]. BT said it was not clear how Ofcom identified the costs relating to [X].²³⁵ BT also said it was not clear how Ofcom estimated that [X] % of overheads associated with regulated TRC services were excluded in BT's analysis (see paragraph 4.144).
- 4.175 BT subsequently set out the reasons why it considered that we should not exclude [X] costs from our estimate of overhead:²³⁶
- 4.175.1 [X];
- 4.175.2 [X];
- 4.175.3 [X]; and
- 4.175.4 [X].
- 4.176 BT argued [X].
- 4.177 BT said that its analysis for the 2016 BCMR Statement was based on overheads for TRCs but that this overhead structure was distorted because regulated TRCs were delivered using internal BT labour while unregulated TRCs were delivered using contractors. BT said that unregulated TRCs would attract less overheads as a result of being delivered using (non-pay) contractors.²³⁷

(ii) Analysis provided by BT in response to the TalkTalk Provisional Conclusions

- 4.178 BT said that the changes it proposed in its response to the TalkTalk Provisional Conclusions (as summarised in paragraphs 4.147 to 4.149) were consistent with published allocation methodologies for calculating the TRC component and were more appropriate to use than the analysis it provided for the 2016 BCMR

²³² As noted above, BT also proposed an alternative approach to estimating FAC which we consider under the heading 'alternative approaches to estimating other costs' later in this section.

²³³ BT response to the Sky provisional conclusions, paragraph 34.

²³⁴ BT response to the Sky provisional conclusions, paragraph 35.

²³⁵ BT response to the Sky provisional conclusions, paragraph 37.

²³⁶ BT's response dated 21 October to question 3 of the 4th section 191 notice.

²³⁷ BT response to the Sky Provisional Conclusions, paragraph 36.

Statement.²³⁸ BT claimed that Ofcom had not contested the validity or the logic of the corrections BT had made.²³⁹

- 4.179 BT argued that adjusting the attribution on this basis would have the effect of increasing the overheads attributed to regulated TRCs and make them more in line with the overhead percentage used by Ofcom in the 2014 FAMR Statement.²⁴⁰
- 4.180 BT disagreed with Ofcom that the corrected attribution resulted in a relatively small increase to the implied general overhead uplift, arguing that an increase from 30% to [x]% is not relatively small in the context of the Disputes.²⁴¹
- 4.181 In response to our comment in the provisional conclusions that "*the additional analysis provided by BT only reviewed part of an allocation rule that affects a number of stages in BT's cost attribution system and we were not in a position to assess fully the appropriateness of the analysis undertaken and the revised allocations made by BT in the time available to resolve the Disputes*" (see paragraph 4.120.1 in the Sky Provisional Conclusions) BT said that "*it reviewed the allocation from TRC component to TRC services (based on revenue in the 2014/15 RFS) and compared this to allocations elsewhere in the system (in particular, the allocations into the TRC plant group PG981R). We provided detailed evidence (cross referred to BT's Accounting Methodology Document) that showed that allocations into the TRC plant group were based primarily on pay. We therefore believe we have demonstrated that the allocation from TRC component to TRC services was not in line with the way costs were allocated to the TRC component in the first place*".²⁴²
- 4.182 In response to our comment that it may not follow that any revised overhead uplift calculated for 2014/15 should be applied to all periods of the Disputes, especially given that BT's approach to attributing overheads has changed over time (see paragraph 4.154), BT said that this was inconsistent with our own approach for two reasons. First, Ofcom's own assessment of the uplift is largely based on the analysis BT provided to support the 2016 BCMR Statement which also related to 2014/15.²⁴³ Second, Ofcom applies its estimated uplift of 30% to all years, despite the fact that allocations may have changed in earlier years.²⁴⁴

(iii) Analysis of general management and general support costs in the RFS

- 4.183 BT argued that Ofcom's analysis of general management and general support costs from the RFS was flawed and likely to underestimate the size of the uplift.
- 4.184 BT said the published data is too general to give any meaningful insight into the level of general overheads to apply to management accounts data since the RFS data contains no clear data that can be equated to management accounts costs (the denominator in the uplift).²⁴⁵
- 4.185 BT said that the use of general management and general support cost categories was selective and a case could be made for including other categories such as

²³⁸ BT response to the Sky Provisional Conclusions, paragraph 39.

²³⁹ BT response to the Sky Provisional Conclusions, paragraph 39.

²⁴⁰ BT response to the Sky Provisional Conclusions, paragraph 20.

²⁴¹ BT response to the Sky Provisional Conclusions, paragraph 42.

²⁴² BT response to the Sky Provisional Conclusions, paragraph 43.

²⁴³ BT response to the Sky Provisional Conclusions, paragraph 45.

²⁴⁴ BT response to the Sky Provisional Conclusions, paragraph 46.

²⁴⁵ BT response to the Sky Provisional Conclusions, paragraphs 48 and 49.

accommodation and finance costs as these were not included in the management accounts data.²⁴⁶

- 4.186 BT also said that the WFAEL and WLA markets that Ofcom used in its analysis contain a wider set of activities than SFIs and TRCs, and are dominated by activities that are capital intensive while SFIs and TRCs make little use of the network. BT said that the TRC component shows a systematically higher implied uplift than the Openreach, WFAEL and WLA measures because these other measures include significant levels of depreciation.²⁴⁷ BT said that the uplift after adjusting for depreciation was far higher for these other measures.²⁴⁸ BT said that after making the same adjustments as Ofcom, the uplift implied by the Openreach, WFAEL and WLA measures is [x] % to [y] %.²⁴⁹

Other comments

- 4.187 BT also made a number of comments on how Ofcom had used the evidence to estimate an overhead uplift of 30%.
- 4.188 BT said that Ofcom appeared to consider the 30% figure was appropriate because it lay in the middle of the broadly reasonable range of overhead uplift of 25% to 35% that Ofcom had identified. BT said it had concerns about using the mid-point of the range as a starting point and then placing “*very high evidential burdens, unsupported by legal precedent, on BT in order to justify any movement from that mid-point*”.²⁵⁰ BT said that this represented a mechanistic approach to assessing compliance and that the CAT has stated that the cost orientation obligation must not be applied mechanistically.²⁵¹ BT said that the purpose of the cost orientation obligation was to give BT ‘bounded’ pricing flexibility and that the flexible nature of the obligation is undermined if Ofcom caps DSAC at an artificially low level.²⁵²

Alternative approaches to estimating other non-pay costs

- 4.189 Given its concerns regarding the reliability of the indirect costs data in the managements account data, BT proposed that we should calculate FAC for TRC services in normal hours by applying a single uplift to direct pay to take account of all other non-pay costs.²⁵³ BT said that the uplift could be estimated by reference to contemporaneous RFS data on TRC and SFI cost components and services. BT also said that the size of the uplift could be cross-checked by reference to other components and services that are similar to TRCs and SFIs.²⁵⁴ Specifically, BT said that i) component CL161 (MDF hardware jumpering) had a similar profile of costs to the TRC component in the 2014/15 RFS and ii) components CL172 (E-side copper current), CL174 (D-side Copper Current), CL176 (Local Exchanges General Frames

²⁴⁶ BT response to the Sky Provisional Conclusions, paragraph 50.

²⁴⁷ BT said that the Openreach, WFAEL, and WLA measures had significant levels of depreciation (generally between [x] % and [y] % of total operating costs), whereas SFIs and TRCs did not (c. [z] % to [w] % of operating costs).

²⁴⁸ BT response to the Sky Provisional Conclusions, paragraph 53 and Table 1. Table 1 shows that the uplifts for Openreach, WFAEL and WLA ranged from [x] % to [y] %.

²⁴⁹ BT response to the Sky Provisional Conclusions, paragraph 54.

²⁵⁰ BT response to the Sky Provisional Conclusions, paragraph 40.

²⁵¹ BT response to the Sky Provisional Conclusions, paragraph 41.

²⁵² BT response to the Sky Provisional Conclusions, paragraph 40.

²⁵³ BT response to the Sky Provisional Conclusions, paragraph 56.

²⁵⁴ BT response to the Sky Provisional Conclusions, paragraph 57.

Current) and CL180 (Residential PSTN Drop Maintenance) had a similar profile of costs as the SFI component in the 2014/15 RFS.²⁵⁵

4.190 BT argued that although the level of direct pay costs in the RFS contained errors and inconsistencies, the ratio between indirect costs and direct pay costs for TRC and SFI services in the RFS was more reliable, as it was “*based on consistent application of published and audited allocation methodologies for overhead costs*”.²⁵⁶

4.191 Tables 4.11 and 4.12 show the component and service data on the uplift provided by BT. In each case the uplift represents other non-pay costs included in each component or service as a proportion of direct pay costs, as reported in the RFS each year.²⁵⁷ The tables show that the uplift percentage is higher in earlier years than in 2014/15. BT argued that this reflected the way that costs were incurred and allocated in those years (and that this was the case across a wide range of components, not just TRCs and SFIs).²⁵⁸ BT said that “*during this period there have been major changes within the business, such as organisational restructuring, and cost transformation initiatives, and also changes in the way costs are allocated in the regulatory financial systems*”. However, BT was only able to provide a high level explanation of specific factors that might explain the trend, saying that over the period:

- “*Openreach...has invested more heavily in direct pay (engineers) to support regulated and unregulated services than in indirect pay (support and overhead functions). As a result of this, the percentage of indirect pay to direct pay has reduced proportionately.*”
- “*Costs in SO/Operate/Design appear to have reduced significantly in the period, and this appears also to be reflected in costs allocated to activities such as repair and provide (including TRCs and SFIs). The reductions appear to be on both pay and non-pay costs.*”
- “*Costs in Supplies Management unit appear to have reduced significantly over the period, and this is also apparent for provision and repair activities.*”²⁵⁹

²⁵⁵ BT response to the Sky Provisional Conclusions, paragraph 58.

²⁵⁶ BT response to the Sky Provisional Conclusions, paragraph 31.

²⁵⁷ BT calculated the uplift as a proportion of direct pay costs only; contractor costs appear to have been excluded. This information is from BT's calculations provided on 26 October 2016 in response to our clarification question of 24 October 2016. In the spreadsheet provided by BT we assume that the 'non-pay direct costs', which are omitted from the overhead uplift calculation, relate to contractors.

²⁵⁸ BT response to the Sky Provisional Conclusions, paragraph 60.

²⁵⁹ BT response dated 21 October 2016 to question 4 of the 4th section 191 notice.

Table 4.11: BT estimate of uplift for other non-pay costs by service - as a percentage of direct pay

Service Name	2008/09	2009/10	2010/11	2011/12	2012/13 original	2012/13 corrected	2013/14	2014/15
SFI External		[X]	[X]	[X]	[X]	[X]	[X]	[X]
SFI Internal		[X]	[X]	[X]	[X]	[X]	[X]	[X]
TRCs	[X]	[X]	[X]	[X]	[X]	[X]	[X]	
Residual TRCs Internal								[X]
WLA TRCs Internal								[X]
WLA TRCs External								[X]
WLR TRCs Internal								[X]
WLR TRCs External								[X]
Residual TRCs External								[X]

Source: BT response dated 26 October 2016 to clarification question on BT's response to Sky Provisional Conclusions.

Table 4.12: BT estimate of uplift for other non-pay costs by component - as a percentage of direct pay

Code	Component name	2008/09	2009/10	2010/11	2011/12	2012/13 original	2012/13 corr.	2013/14	2014/15
CK981	TRCs	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
CL161	MDF Hardware jumpering	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Sub-Total MDF and TRCs		[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
CO989	SFI		[X]	[X]	[X]	[X]	[X]	[X]	[X]
CL172	E side copper current	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
CL174	D side copper current	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
CL176	Local exchanges general frames current	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]

CL180	Residential PSTN drop maintenance	[X]							
Sub-Total Other Components		[X]							
Total		[X]							

Source: BT response dated 26 October 2016 to clarification question related to BT's response to the Sky Provisional Conclusions.

4.192 BT said that the “*use of TRC services for this analysis will cause distortions because TRCs make significant use of external contractors (mainly to deliver the non-regulated TRC activities). By contrast the SFI service is delivered using a lower proportion of external contract labour, which is more representative of the cost structure of regulated TRC and SFI activities. Therefore, we consider Ofcom should apply an uplift based on the data related to SFI component and services rather than TRC components and services as this will avoid the distortion. For 2008/09, where SFI data does not exist, we consider it would be appropriate to use 2009/10 data for SFIs as a proxy.*”²⁶⁰

Ofcom's view

4.193 As explained in paragraph 4.161, our estimate of FAC for TRCs in normal hours presented in the provisional conclusions consisted of i) direct pay costs, ii) other non-pay costs and iii) the billing adjustment. We did not include a return on capital employed in our estimate of FAC.

4.194 In relation to the direct pay costs included in our FAC estimate, no respondents disagreed with our proposal to use hourly pay costs from BT's management accounts set out in Table 4.8. These hourly pay costs are relatively stable over time, increasing by an average of 0.4% per annum over the period. For the period 2008/09 to 2010/11 we consider that BT's approach to extrapolating hourly pay by reference to average pay awards adjusted for average efficiency improvements is likely to give a reasonable estimate of hourly pay for TRCs in this period. We have therefore estimated hourly direct pay costs by reference to the estimates in Table 4.8.

4.195 We also continue to include a billing adjustment in our FAC estimate for TRCs in normal hours, as set out in paragraph 4.159 and exclude return on capital employed, for the reasons set out in paragraph 4.155. No stakeholders disagreed with these approaches. In the rest of this section we consider how to estimate other non-pay costs associated with TRCs in normal hours which, as set out above, was an area of focus for stakeholders' responses to the provisional conclusions. While stakeholders were in agreement that other non-pay costs in addition to direct pay should be included within the FAC of TRCs in normal hours, there was disagreement about the methodology to use and the magnitude of any allowance for these costs. In light of the comments and information provided by stakeholders, we have reconsidered our approach to estimating these costs.

4.196 In assessing this issue we have been faced with a lack of reliable information on the amount of other non-pay costs that may reasonably be associated with TRCs and

²⁶⁰ BT response to the Sky Provisional Conclusions, paragraph 62.

SFIs. In particular, there is limited information available from BT on the amount of other non-pay costs that were associated with TRCs and SFIs in the relevant periods of the Disputes, and the information that is available is often not robust and the extent to which it could be applied to the entire relevant period is unclear.

4.197 Given the limitations in the data available to us, we have exercised our regulatory judgment in order to determine the most appropriate information to use to estimate these costs for the purposes of resolving the Disputes. Our assessment is structured as follows:

- Indirect costs from the management accounts;
- BT's analysis of TRC overheads in 2014/15; and
- Estimating other non-pay costs in 2008/09 to 2013/14.

Indirect costs from the management accounts

4.198 BT said that it only started to routinely prepare management accounts for TRCs in 2014/15. It said that extracting data in previous years was less robust and estimating indirect costs for these years was difficult. For example, some categories of indirect costs, such as mobile and training, may not have been accurately recorded prior to 2014/15 since as a proportion of total indirect costs they increase from around [x] % in 2013/14 to around [x] % in 2014/15.²⁶¹

4.199 Although BT attempted to estimate indirect costs for earlier years by extrapolating data from later years, we recognise that the level of indirect costs estimated using this method may not be robust. In particular, we recognise that, as a proportion of direct pay from the management accounts, the amount of indirect costs increases over the period, ranging between [x] % and [x] %. As BT set out in its response, this is in contrast to the broader relationship between direct pay costs and other non-pay costs shown in the RFS for TRCs, SFIs and other components that BT argued were similar in nature, which shows a decreasing trend in the ratio over the period. As summarised in paragraph 4.191, BT said this was the result of changes to the organisation, such as Openreach investing more in pay costs than in other non-pay costs. To the extent that BT was becoming more efficient in relation to other non-pay costs compared to direct pay costs, or direct pay rates were rising faster than other non-pay costs, we might expect to see a gradual decline in the ratio of indirect costs to direct pay from the management accounts.

4.200 On the basis that the trend in the management accounts appears to run counter to that shown in the RFS, alongside BT telling us that it only started routinely preparing management accounts for TRCs in 2014/15, we consider that while the indirect costs from the 2014/15 management accounts are reliable, the indirect costs in previous years are not sufficiently robust to rely on for the purposes of resolving the Disputes.

4.201 We have therefore used the indirect costs from the management accounts to estimate FAC for TRCs in normal hours in 2014/15, but not for previous years. In

²⁶¹ In paragraph 4.140 we recognised BT's comment that mobile costs were not available prior to 2014/15 but we did not make an adjustment for this in the provisional conclusions since there appeared to be some small mobile costs in previous years. We note that mobile costs in prior years were a lot smaller than reported in the 2014/15 management accounts, as set out in this paragraph.

2014/15 these costs represent an hourly cost of £[<], equivalent to a [<]% uplift on 2014/15 direct pay.

- 4.202 As identified in the provisional conclusions, there are other costs (for example 'general overheads' such as corporate costs) that are not included in the management accounts but are nonetheless associated with the provision of TRCs (and SFIs). We consider these in the next section in order to conclude on our estimate of other non-pay costs for 2014/15, before considering the most appropriate approach to estimating other non-pay costs in earlier years.

BT's analysis of TRC overheads in 2014/15

- 4.203 As described above, BT provided an analysis of TRC overheads in 2014/15 for the 2016 BCMR Statement. This analysis was derived from the 2014/15 RFS data for regulated TRC services, and this data was adjusted by BT to remove any costs that were included in the 2014/15 management accounts costs stack.
- 4.204 We estimated that [<]% of overheads associated with regulated TRC services in the RFS were excluded in BT's analysis on the basis that they were already included in the management accounts.²⁶² This analysis gives us comfort that costs from the management accounts were not double counted in BT's 2014/15 analysis, which was one of TalkTalk's concerns.²⁶³
- 4.205 We said that as part of the 2016 BCMR Statement we adjusted BT's analysis to remove costs associated with [<] on the basis that it was not clear how these related to the provision of TRCs. These two categories of excluded overheads represented [<]% of BT's estimate of TRC overheads associated with WLA/WFAEL TRCs in 2014/15.²⁶⁴
- 4.206 Given BT's explanation of [<] costs summarised in paragraphs 4.175, we consider that these costs are associated with the provision of TRCs and we no longer consider that it is appropriate to exclude them from BT's analysis of 2014/15 TRC overheads.²⁶⁵ We have therefore amended the analysis of 2014/15 overheads to only exclude costs associated with the [<], which represents a reduction of [<]% in BT's estimate of TRC overheads associated with WLA/WFAEL TRCs in 2014/15.
- 4.207 Following this adjustment, the estimate of hourly overheads relating to TRCs in 2014/15 is £[<], equivalent to a [<]% uplift on 2014/15 direct pay from the management accounts. Added to the estimate of indirect costs from the management accounts (see paragraph 4.201), the hourly estimate of all other non-pay costs associated with TRCs in 2014/15 is £[<], equivalent to an uplift of [<]% on the 2014/15 direct pay costs from the management accounts.

²⁶² BT said it was not clear how we estimated this percentage. We estimated this percentage by reviewing the spreadsheet BT provided on 15 September 2016 called "supplementary submission TTG Provisional Conclusion 15092016.xlsx". The tab called "BCMR s135 calc" shows BT's estimate of which costs from the RFS map onto costs from the management accounts. The spreadsheet shows that total non-pay other hourly costs from the RFS were [<]. Of this amount, BT excluded [<] of hourly costs that were already included in the management accounts (rows 10 to 26), which represents [<]% of the other costs from the RFS [<].

²⁶³ We do not consider that the analysis TalkTalk refers to from 2008 (which was across several services) is relevant to the question of the appropriate uplift for other non-pay costs to apply to BT's TRC hourly costs during the relevant period.

²⁶⁴ [<]

²⁶⁵ BT's explanation of these costs was not available at the time of the 2016 BCMR Statement.

- 4.208 In response to the provisional conclusions BT provided an alternative version of the analysis it provided for the 2016 BCMR Statement. This is summarised in paragraphs 4.189 to 4.192. BT's alternative version increases the overheads associated with regulated TRCs. We estimate that, taking into account the exclusion of the [x] made in the 2016 BCMR Statement, BT's alternative version increases the estimate of regulated TRC overheads in 2014/15 to £[x] to £[x], equivalent to an uplift of [x]% to [x]% on the 2014/15 direct pay costs from the management accounts.
- 4.209 BT's alternative version adjusted the way that costs were attributed from TRC components to regulated TRC services (which in 2014/15 was done on the basis of revenue) to more closely reflect the way that costs were attributed to TRC components (which in 2014/15 used a number of methodologies but many of them involved an attribution based on pay). Since regulated TRC services make more use of internal engineering labour compared to non-regulated TRC services (which make more use of contractors), adjusting the attribution of costs from TRC components to TRC services using a pay driver increases the amount of overheads attributed to regulated TRC services.
- 4.210 We agree that attributing TRC component costs to TRC services on the basis of revenue, which BT decided to do in its 2014/15 RFS, does not reflect the methodologies used by BT to attribute costs to TRC components. However, we disagree with BT's characterisation of this change as a correction. Attributing costs from TRC components to TRC services on the basis of revenue reflects BT's attribution choice at the time of the 2014/15 RFS. In our provisional conclusions we said that BT had only reviewed part of an allocation rule that affects a number of stages in BT's cost attribution system and we were not in a position to assess fully the appropriateness of the analysis undertaken and the revised allocations made by BT in the time available to resolve the Disputes.
- 4.211 In response, BT said that it believed it had demonstrated that the allocation from TRC component to TRC services was not in line with the way costs were allocated to the TRC component in the first place (see paragraph 4.181). We broadly agree with this statement, but we consider that a review of the attribution of overheads to TRC services should consider each stage of the attribution process and whether it is appropriate, as BT argues, that overheads should largely be attributed to regulated TRC services rather than unregulated TRC services on the basis that they make use of more internal labour.
- 4.212 It may be the case, for example, that some overheads would be associated with unregulated TRC services even though they make more use of contractors than regulated TRCs. Indeed, in the 2016 BCMR Statement we reviewed some of BT's overheads in 2014/15 that were attributed using a pay-based attribution rule and concluded that it was appropriate, for the purposes of that charge control, to instead attribute many of these overheads using an attribution rule that also included non-pay (e.g. contractor costs).²⁶⁶ While we do not apply these findings in these Disputes,²⁶⁷ we consider that it indicates that a full review of the attribution of overheads to regulated and unregulated TRC services in 2014/15 may not conclude that BT's proposal is appropriate. On this basis, we maintain our view that BT has only

²⁶⁶ See chapter 2 of Annex 28 of the 2016 BCMR Statement where we reviewed the attribution of overheads using a "pay and return on assets" methodology and decided to replace many of these attributions using a rule based on all previously attributed costs (e.g. pay, non-pay, depreciation and a return on capital).

²⁶⁷ As explained in footnote 116 of the Sky Provisional Conclusions.

reviewed part of an allocation rule that affects a number of stages in BT's cost attribution system and we are not in a position to assess fully the appropriateness of the analysis undertaken and the revised allocations made by BT in the time available to resolve the Disputes.

- 4.213 We therefore continue to use the analysis of 2014/15 TRC overheads that BT originally provided for the 2016 BCMR Statement which reflects the attribution used in the 2014/15 RFS. Using this analysis is also consistent with the evidence considered in the 2016 BCMR Statement.
- 4.214 We have also cross-checked the 2014/15 other non-pay costs uplift implied by this analysis ([<]%) against the RFS in this year, given that BT suggested this as an alternative approach to estimating these costs in its response. BT said that while regulated and unregulated TRC services are delivered using different methods (i.e. internal labour and external contractors), SFI services are largely delivered using internal labour. Therefore, the other non-pay costs associated with SFI services may be more representative of the cost structure of regulated TRC and SFI activities (see paragraph 4.192). Considering the other non-pay costs associated with SFI services in 2014/15 therefore avoids some of the possible issues with TRC services that BT identified in its alternative analysis described above.
- 4.215 As described in paragraphs 4.189 to 4.192, BT analysed the ratio between direct pay costs and other non-pay costs in the RFS in the period 2008/09 to 2014/15. For 2014/15, Table 4.11 shows that the ratio for SFI services was [<]%.²⁶⁸ This is slightly below the ratio of [<]% (derived from 2014/15 management accounts and the analysis undertaken for the 2016 BCMR Statement), and gives us comfort that the ratio of [<]% reasonably reflects the proportion of other costs associated with TRCs.
- 4.216 In the provisional conclusions we also considered the cost categories of general management and general support from the RFS. However, in light of BT's response, we no longer consider it is appropriate to use this analysis to inform our assessment of other costs associated with TRCs. This is because these categories are unlikely to represent all relevant costs (such as accommodation and finance identified by BT) and the RFS does not contain data that equates to the direct and indirect costs from the management accounts for TRCs, making estimating an appropriate uplift using this information difficult.

Conclusion on other costs in 2014/15

- 4.217 We estimate that other costs associated with TRCs in normal hours in 2014/15 amount to £[<], equivalent to an uplift of [<]% on the 2014/15 direct pay costs from the management accounts.

Estimating other non-pay costs in 2008/09 to 2013/14

- 4.218 In the previous section we considered that the management accounts information on indirect costs in the years prior to 2014/15 was not sufficiently reliable. To resolve the Disputes, we therefore need an alternative method to estimate the other non-pay costs associated with TRCs in the period 2008/09 to 2013/14. In this section we consider the following two approaches:
- i) BT's approach of using RFS data; and

²⁶⁸ The ratio for TRC services was [<]%.

- ii) Adjusting 2014/15 other costs by inflation and efficiency.

(i) BT's approach of using RFS data

- 4.219 BT said that, as a proportion of direct pay, indirect costs from the management accounts were unstable and suggested we consider whether there was more stable information available. BT proposed that we use information derived from the RFS on the uplift for other costs as a percentage of direct pay. BT's approach was explained in paragraphs 4.189 to 4.192 and Tables 4.11 and 4.12 show the uplifts estimated by BT for TRC and SFI services and components, alongside other components that BT considered have similar cost profiles to TRCs and SFIs.
- 4.220 As noted in the previous section, in 2014/15 the uplift from the RFS data provided by BT is similar to that obtained from the management accounts combined with BT's analysis for the 2016 BCMR Statement. However, in years prior to 2014/15, the RFS data provided by BT shows significant movements over time. Table 4.11 shows that between 2009/10 and 2014/15 the other non-pay costs uplift for SFIs halved from [x]% to [y]%, an annual average decrease of [z] percentage points. A similar pattern is seen for TRC services, where the other costs uplift falls from [x]% in 2008/09 to [y]% in 2013/14, an annual average decrease of [z] percentage points.
- 4.221 BT was only able to provide us with some high level comments on why this downward trend occurred (see paragraph 4.191). Whilst we considered above that the general trend shown in the RFS data suggested that the management accounts information on indirect costs was not reliable prior to 2014/15 (alongside the fact that BT only started routinely preparing the management accounts data in 2014/15), we do not consider that the explanation provided by BT is sufficient to give confidence that the RFS data can be relied on for the purposes of resolving the Disputes.
- 4.222 In particular, BT was unable to explain the significant variance in the other non-pay costs uplift derived from the RFS over the relevant period (which, indeed, is similar in magnitude to the variance in the indirect costs data in the management accounts data which BT suggested meant that data was unreliable²⁶⁹). We were therefore concerned that using the RFS data would result in a material overstatement of the costs of providing TRCs and SFIs, in particular in the earlier years of the relevant periods of the Disputes. We also took into account the fact that that BT had told us that, prior to 2014/15, costs for TRC and SFI services were not subject to the same level of audit review and audit opinion as other regulated markets²⁷⁰ and that there were anomalies in the trend in unit costs from the RFS.²⁷¹ As a result, we have not used the RFS data to estimate the other non-pay costs for TRCs in normal hours for the period 2008/09 to 2013/14.

(ii) Adjusting 2014/15 other costs by inflation and efficiency

- 4.223 When estimating pay costs from the management accounts information BT said it considered wage inflation and efficiency improvements (see paragraph 4.133).

²⁶⁹ The ratio of indirect costs to direct pay in the management account increases by around [x]% over the relevant period while the ratio of other non-pay costs to direct pay in the RFS falls by around [y]% over the same period.

²⁷⁰ See paragraph 4.62 above.

²⁷¹ See paragraph 4.116. This was a view we also expressed in the 2014 FAMR Statement (see paragraph 4.85 above).

- 4.224 We consider that a similar methodology could be applied to our 2014/15 analysis of other non-pay costs to estimate these costs for TRCs in earlier years. Typically, these two effects will move in opposite directions, with inflation increasing the hourly costs of TRCs and efficiency improvements reducing them.
- 4.225 In terms of the inflation estimate, we have used CPI inflation as at March each year. This is consistent with the 2014 FAMR Statement where we applied CPI to non-pay costs.²⁷²
- 4.226 In previous decisions we have not identified an efficiency rate specific for TRC/SFI services and the efficiency rates we have identified applied across both pay and non-pay costs. Given the lack of TRC/SFI specific evidence, we have considered historical Openreach efficiency rates since TRCs/SFIs are provided by Openreach.²⁷³ Based on this evidence, we consider that an efficiency rate of 5% is a reasonable estimate for the annual efficiency rate in the period 2008/09 to 2014/15.²⁷⁴
- 4.227 Table 4.13 summarises the inflation and efficiency assumptions and the resulting estimates of other costs in the period 2008/09 to 2013/14, based on extrapolating our estimate of other costs in 2014/15. This gives an annual average reduction in other costs of 2.6%.

Table 4.13: Estimate of other non-pay costs for TRC in normal hours, £ nominal

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
CPI		3.4%	4.0%	3.5%	2.8%	1.6%	0.0%
Efficiency		5%	5%	5%	5%	5%	5%
Other non-pay costs	[X]						

Source: Ofcom. Note: in each year prior to 2014/15 other non-pay costs are estimated by reversing the CPI and efficiency gains from the subsequent year.

- 4.228 We consider that this approach gives a reasonable estimate of other non-pay costs for TRCs in normal hours because i) it reflects how we would expect these costs to broadly change year on year; ii) it is consistent with BT's approach to estimating direct pay costs and iii) it is anchored to our estimates of other non-pay costs in 2014/15 that appear reasonable, as explained above.

Conclusion on FAC for TRCs in normal hours

- 4.229 Table 4.14 summarises the FAC estimate for TRCs in normal hours that we have used to resolve the Disputes. To summarise, this has been estimated as follows:

- Direct pay costs are derived from BT's management account data;

²⁷² See paragraph A13.195 of the 2014 FAMR Statement. Separate inflation assumptions were applied to accommodation and cumulo costs in that statement which are not relevant to TRCs.

²⁷³ We considered the following evidence. In the 2012 LLU Statement we said "Prior to 2010/11, we estimate that Openreach's efficiency outturned at around 4% (for the period 2007/8 to 2009/10)" (paragraph A3.21). In the 2014 FAMR Statement we said that "We estimated that, at the Openreach level, operating cost efficiency for 2010/11 and 2011/12 averaged between 5% and 6.5%" (paragraph A16.41). In the 2016 BCMR Statement we said that the average efficiency for Openreach in the period 2010/11 to 2014/15 was [X]% (see Table A29.7).

²⁷⁴ We have not explicitly taken account of volume changes since we do not have robust information on historical volumes for TRCs and SFIs, but given that the cost/volume relationship for these services is likely to be close to 1 (consistent with FAC and DSAC being similar, as explained below) we are estimating changes in unit costs in a way that is consistent with the way efficiency has been calculated (which is net of effect of changes in volume and inflation).

- Other non-pay costs in 2014/15 have been estimated based on the sum of i) indirect costs from BT's 2014/15 management accounts and ii) BT's analysis of TRC overheads in 2014/15 provided to support the 2016 BCMR Statement.
- Other non-pay costs in 2008/09 to 2013/14 have been extrapolated based on the total other non-pay costs estimated for 2014/15, adjusted for CPI inflation and an estimated efficiency of 5% in each year.
- A billing adjustment reduction of 18% has been made in each year.

Table 4.14: Estimate of TRC FAC in normal hours, £ nominal

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
Direct pay costs per BT	[X]						
Add: other non-pay costs	[X]						
Hourly FAC before billing adj. ¹	[X]						
Less: Billing adjustment	[X]						
Hourly FAC	[X]						

Source: Ofcom. Note ¹ This hourly FAC is also used for the visit element of the visit charge.

Estimate of FAC for SFIs and other TRC charges

Approach in the provisional conclusions

4.230 Having estimated FAC for TRCs and SFIs in normal hours, in the provisional conclusions we considered how to use this information to derive FAC for SFIs and other TRC charges.

SFI charges

4.231 SFI2 services are charged on a modular basis but, as module costs are a function of hourly charge multiples, we considered that hourly costs could be adjusted using these multiples in order to estimate FAC for SFIs.

4.232 BT provided us with information on the hourly multiples for the years 2011/12 to 2014/15, shown in Table 4.15. BT was unable to identify the multiples for earlier years. In the absence of other information, we assumed that the multiples for the years 2009/10 and 2010/11 were the same as the multiples in the nearest year for which data is available, i.e. 2011/12.

Table 4.15: SFI2 labour hours per module

Module	2011/12	2012/13	2013/14	2014/15
Base	[X]	[X]	[X]	[X]
Network	[X]	[X]	[X]	[X]
Frame	[X]	[X]	[X]	[X]
Internal Wiring	[X]	[X]	[X]	[X]
Internal Equipment	[X]	[X]	[X]	[X]
Coop	[X]	[X]	[X]	[X]
Frame Direct	[X]	[X]	[X]	[X]

Source: BT response dated 27 July 2016 to question 3 of the 2nd section 191 notice.

- 4.233 BT did not provide an hourly multiple for the SFI1 product for 2008/09 to 2010/11. We therefore relied on information contained in BT's internal pricing papers to estimate an appropriate multiple. A pricing paper from October 2007 refers to an average duration of an LLU SFI of [x].²⁷⁵ Another paper from 2009 says that SFI is a 'circa [x] job'.²⁷⁶ Two other papers from 2009 and 2010 indicate that an SFI job is composed of a [x].²⁷⁷ The pricing papers referred to above cover the period up to February 2010. The SFI1 product was withdrawn in March 2011. We considered it reasonable to assume that the nature of the job was the same until the product was withdrawn and provisionally concluded that the relevant multiple for SFI1 is [x] in each year of the relevant periods until the product was withdrawn.
- 4.234 We applied the relevant multiples to the standard hourly FAC in each year of the relevant periods in order to estimate the FAC per SFI module. Consistent with our analysis in the 2014 FAMR Statement, we did not apply the 18% billing adjustment to SFI costs.²⁷⁸

TRC hourly charges outside of normal hours

- 4.235 As explained above, in order to estimate the cost stack for normal working days we assumed that the hourly overtime cost from the management accounts was a reasonable estimate of the overtime associated with normal working hours, so we made no adjustment to remove any overtime costs when estimating the FAC for TRCs in normal hours.
- 4.236 In relation to (i) all other times except Sundays and bank holidays and (ii) Sundays and bank holidays, we assumed that the difference in charges for these days reflected differences in labour rates for working outside of normal hours. In order to estimate the cost stack for these charges, we therefore uplifted our estimate of FAC for TRCs in normal hours by the ratio of the relevant charge to the normal hours charge.²⁷⁹ However, for this purpose we excluded the hourly overtime cost from the management accounts because we considered it related to overtime associated with normal working hours only. We considered that including an explicit allowance for overtime for TRCs outside of normal hours, as well as multiplying FAC by the ratio of charges, risked double-counting the additional labour rates associated with work outside of normal hours.

TRC visit charges

- 4.237 Since 17 October 2009, the TRC visit charge has included an hour of engineering time as well as the cost of the engineer getting to the end customer's premises. In the 2014 FAMR Statement the visit element of the charge was treated as equivalent to an hour of engineering time.²⁸⁰ As BT did not provide any separate cost information on the visit element of the charge, we used a consistent approach with that adopted in the 2014 FAMR Statement and assumed that the cost of the visit

²⁷⁵ Pricing paper, 24 October 2007, page 3.

²⁷⁶ Pricing paper 6 July 2009, page 5.

²⁷⁷ Pricing paper 28 July 2009, page 6 and pricing paper February 2010, page 5.

²⁷⁸ In paragraph 18.168, footnote 1381 of the 2014 FAMR Statement we said that we did not consider that SFIs suffered from the same billing issue as TRCs.

²⁷⁹ For example, in 2011/12 the hourly charge for Sunday hours was £100 compared to £50 for normal working hours; a ratio of 2. To estimate the 2011/12 FAC associated with Sunday charges we have therefore uplifted our 2011/12 FAC estimate for normal working hours by a multiple of 2.

²⁸⁰ 2014 FAMR Statement, paragraph 18.121.

element of the charge is equivalent to the hourly cost, i.e. that the visit charge since 17 October 2009 effectively represented two hours of engineering time.²⁸¹

- 4.238 Prior to 17 October 2009 the visit charge only reflected the costs of the engineer getting to the end customer's premises and did not include an additional hour of engineering time.²⁸² Consistent with the approach adopted in the 2014 FAMR Statement, we assumed that the visit charge prior to 17 October 2009 represented one hour of engineering time.
- 4.239 For the visit charge in normal hours we therefore estimated the FAC by adding together the FAC for TRCs in normal hours with and without the billing adjustment. For the other times and Sunday/BH visit charges, we adopted the same approach but excluded overtime (consistent with our approach for the TRC hourly charge outside of normal hours) and multiplied the result by the ratio of other times and Sunday/BH visit charges to the normal hours visit charge.²⁸³
- 4.240 We applied the 18% billing adjustment (see paragraph 4.229 above) to the element of the visit charge relating to the first hour of an engineer's time, but not to the visit element.²⁸⁴ This means that we did not apply the billing adjustment to the visit charge prior to 17 October 2009.

TRC supplementary charges

- 4.241 For supplementary charges, BT explained that the pricing principle has been to set prices equal to the [~~3~~]²⁸⁵ We therefore estimated the cost of supplementary charges to [~~3~~], which was consistent with BT's explanation of how these charges are set.

Internal and external NTE shift

- 4.242 The charges for internal and external NTE shift during the Relevant Period were the same as for the visit charge in normal hours and in the 2014 FAMR Statement we noted that BT had told us that these charges were directly linked to TRC rates, although the prices were fixed.²⁸⁶ On the basis that the charges for these services were the same as for the visit charge in normal hours throughout the Relevant Period, we assumed that the cost stack for internal and external NTE shifts is the same as for the visit charge in normal hours

²⁸¹ However, as explained above, the adjustment we made for billed hours only applied to the hourly element of the visit charge, consistent with the approach used in the 2014 FAMR Statement.

²⁸² BT response dated 1 September 2016 to question 1 (Annex B) of the 3rd section 191 notice.

²⁸³ For example, in 2011/12 the visit charge in normal hours was £105 and the visit charge for other times was £130, giving a ratio of 1.24.

²⁸⁴ This was consistent with the approach adopted in the 2014 FAMR Statement, which states at paragraph 18.144 that the billing adjustment was made to the hourly charge in the visit charge and to the additional hour charge. Footnote 1362 explains that the visit element of the visit charge was only subject to the cost adjustment and not the billing adjustment.

²⁸⁵ BT response dated 1 September 2016 to question 1b (Annex C) of the 3rd section 191.

²⁸⁶ 2014 FAMR Statement paragraph 18.159.

TRC stores charges

4.243 The management accounts data shown in Table 4.10 did not include any costs for TRC stores items. BT provided the cost data set out in Table 4.16, which it stated was the “best information it has available at this time”, noting that:²⁸⁷

- [redacted]
- [redacted]²⁸⁸
- [redacted]

Table 4.16: TRC stores costs, £ nominal

	Cost
Internal pack	[redacted]
External pack	[redacted]
Data ext kit	[redacted]
Broadband front plate	[redacted]

Source: BT emails to Ofcom dated 5 August 2016 and 9 August 2016.

4.244 We noted that this cost data is not contemporaneous with the Relevant Period in the TalkTalk Dispute as it did not appear from the material available to us that BT undertook an analysis of the costs involved in providing these services during that period.²⁸⁹ However, in the absence of any other cost information associated with TRC stores items, we proposed to use this data to resolve the TalkTalk Dispute.

4.245 To obtain FAC estimates for TRC stores using this data we also assumed that:

- The unit cost information provided by BT applies to the whole Relevant Period in the TalkTalk Dispute. [redacted]
- [redacted]

Responses to the provisional conclusions

4.246 In relation to our FAC estimate for TRC stores, BT argued that Ofcom should apply an overhead uplift to TRC stores costs. The overheads identified by BT which it said were relevant to the provision of stores items included storage costs, field order pick charges (costs to fulfil an order placed by an engineer), transportation from store to site, management fee for running Stores Hub and cost of supply chain testing and repair.²⁹⁰

4.247 By analysing RFS costs for the service delivery unit of Openreach, BT estimated the material handling costs as a percentage of the stores cost for this unit in the RFS²⁹¹

²⁸⁷ Email from BT to Ofcom dated 5 August 2016.

²⁸⁸ [redacted].

²⁸⁹ We note, for example, that [redacted].

²⁹⁰ BT response to TalkTalk Provisional Conclusions, paragraph 33.

²⁹¹ BT told us that it estimated the stores overhead uplift by considering costs in Openreach's service delivery unit (OUC BV). Stores overhead costs were estimated largely by reference to the F8 code 24049 (“MHC Titan fixed charges in”), which is a transfer charge relating to [redacted]. The uplift was

and argued that Ofcom should use these percentages to uplift the stores costs to avoid understating the total cost of TRCs and SFI “ultimately leading to *inappropriately high alleged over-charge*”.²⁹² BT explained that the TRCs and SFIs in scope of the Disputes were carried out by engineers within the service delivery unit.²⁹³

4.248 Table 4.17 sets out the percentage uplift for stores overheads estimated by BT.

Table 4.17 TRC stores overhead uplift, %

	2011/12	2012/13	2013/14	2014/15
Overheads	[x]%	[x]%	[x]%	[x]%

Source: BT's supplementary response to the TalkTalk Provisional Conclusions.

4.249 Vodafone was the only stakeholder which commented on our approach to deriving FAC for SFIs and other TRC charges summarised in paragraphs 4.230 to 4.245 above. Vodafone said that Ofcom should apply the 18% 'billing adjustment' made to TRC hourly charges to the visit charge for both TRC and SFI services as well. Vodafone argued that “*the resetting of the additional hour charge to FAC remedies the problem of over-charging going forward. However, using the more generous DSAC methodology on a historic basis falls short of ensuring all charges are cost oriented.*”²⁹⁴

Ofcom's view

4.250 For SFI charges and other TRC hourly charges we have decided to estimate FAC on the same basis as that set out in the provisional conclusions, as summarised in paragraphs 4.230 to 4.245.

4.251 In relation to Vodafone's argument that the billing adjustment should be applied to SFIs and the visit element of the visit charge, as we explained above the conclusion in the 2014 FAMR Statement was that the billing adjustment should only apply to the hourly element of the visit charge and the charges for additional hours. We do not have a basis for considering that the billing adjustment should be applied to the visit element of the visit charge, and making this adjustment would therefore risk understating the FAC of the TRC visit charge. We do not consider that a billing adjustment is required for SFIs, since FAC has been estimated using information on the actual number of hours worked for each SFI module (see Table 4.18). We have therefore made the billing adjustment, reducing our estimate of hourly FAC by 18% as explained above. In estimating the FAC for TRC stores, we consider that it is appropriate to include an allowance for stores overheads [x].

4.252 We note that the size of the stores overheads uplift provided by BT doubles between 2011/12 and 2014/15 from [x]% to [x]% and BT was unable to explain the reasons

derived by dividing the stores overhead costs by the operating costs of stores from the same division. See BT submission dated 15 September, response to question 6(ii).

²⁹² BT response to the TalkTalk Provisional Conclusions, paragraph 33. BT subsequently adjusted the estimated percentages downwards (having made some adjustments to its approach) and provided us with a revised set of percentages in its supplementary response to the TalkTalk Provisional Conclusions.

²⁹³ BT supplementary response to TalkTalk Provisional Conclusions, page 11.

²⁹⁴ Vodafone response to the TalkTalk Provisional Conclusions, paragraph 5.2 and its response to the Sky Provisional Conclusions, paragraph 5.2.

for this variance.²⁹⁵ However, on average over the period 2011/12 to 2014/15 the size of the uplift was [redacted]%, which is broadly consistent with the magnitude of our estimate of the uplift for general overheads applied to TRC charges in normal hours for 2014/15 set out in paragraph 4.149. On this basis, we consider that BT's estimates of the uplift for stores overheads appear broadly reasonable, given its explanation of how it had derived these estimates.²⁹⁶

4.253 The following tables summarise the FAC for SFIs, other TRC charges and TRC stores items following the methodology set out in this section.

SFI charges

Table 4.18: SFI FAC per module, £ nominal

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
SFI1	[redacted]	[redacted]	[redacted]	N/A	N/A	N/A	N/A
SFI2 modules							
Base		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Network		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Frame		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Internal Wiring		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Internal Equipment		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Coop		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Frame Direct		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Source: Ofcom

TRC hourly charges outside of normal hours

Table 4.19: Estimate of TRC hourly FAC for other times and Sunday/BH, £ nominal

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
Hourly pay costs	[redacted]						
Subtract: overtime	[redacted]						
Add: other non-pay costs	[redacted]						
Estimated hourly FAC before billing adjustment	[redacted]						
Subtract: Overbilling adjustment	[redacted]						
TRC hourly FAC	[redacted]						
Multiplier - other times	[redacted]						
TRC hourly FAC - other times	[redacted]						

²⁹⁵ BT submission dated 15 September, response to question 6(iv).

²⁹⁶ We also considered whether the analysis provided by BT for the 2016 BCMR Statement, which we use to inform our uplift of general overheads for TRC charges, included stores overheads. We note that BT's analysis for the 2016 BCMR Statement included 'materials handling costs' which, given this description, could include some costs associated with stores overheads. However, the 'materials handling costs' are a relatively small cost in the context of our overheads analysis which we do not consider has materially affected our estimate of the general overheads uplift.

Multiplier - Sunday/BH	[X]						
TRC hourly FAC - Sunday/BH	[X]						

Source: Ofcom

TRC visit charges

Table 4.20: Estimate of FAC for TRC visit charge, £ nominal

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
Pre 17 October 2009							
Normal hours	[X]	[X]					
Other times	[X]	[X]					
Sunday/BH	[X]	[X]					
Post 17 October 2009							
Normal hours		[X]	[X]	[X]	[X]	[X]	[X]
Other times		[X]	[X]	[X]	[X]	[X]	[X]
Sunday/BH		[X]	[X]	[X]	[X]	[X]	[X]

Source: Ofcom

TRC supplementary charges

Table 4.21: Estimate of supplementary charges hourly FAC, £ nominal

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
Other times	[X]						
Sunday/BH	[X]						

Source: Ofcom

Table 4.22: Estimate of FAC for supplementary visit charge, £ nominal

	2008/09	2009/10		2010/11	2011/12	2012/13	2013/14	2014/15
		1/04/09-16/10/09	17/10/09-31/03/09					
Other times	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Sunday/BH	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]

Source: Ofcom

Internal and external NTE shifts

4.254 We have applied our estimated FAC for the normal hours visit charge to the internal and external NTE shift charge.

Table 4.23: Estimate of FAC for external NTE shifts, £ nominal

	2012/13	2013/14	2014/15
NTE shift	[X]	[X]	[X]

Source: Ofcom

TRC stores

4.255 Table 4.24 shows the estimated FAC for TRC stores, taking account of the stores overhead uplift.

Table 4.24 Unit FAC for TRC stores, £ nominal

	2011/12	2012/13	2013/14	2014/15
Internal pack	[X]	[X]	[X]	[X]
External pack	[X]	[X]	[X]	[X]
Data ext kit	[X]	[X]	[X]	[X]
Broadband front plate	[X]	[X]	[X]	[X]

Source: Ofcom

Translation of FAC to DSAC

Approach in the provisional conclusions

4.256 In the provisional conclusions we set out proposals for translating FAC estimates into DSAC for i) SFI and TRC hourly and visit charges and ii) TRC stores charges. We considered estimating DSAC by either (i) requiring BT to re-run its LRIC model, or (ii) applying DSAC/FAC ratios to our FAC estimates.²⁹⁷ Consistent with previous disputes, we did not consider it was practicable or proportionate to require BT to re-run its LRIC model in order to resolve the Dispute.²⁹⁸ We therefore proposed to estimate DSAC by applying an appropriate DSAC/FAC ratio to the FAC estimates.

SFIs and TRC hourly and visit charges

4.257 In order to estimate an appropriate DSAC/FAC ratio we considered the following:

- Similarity of DSAC to FAC;
- BT's pricing papers;
- RFS data; and
- Other sources of information.

Similarity of DSAC to FAC

4.258 As set out above, both TalkTalk and Sky argued that DSAC for TRCs and SFIs should be very similar to FAC. This was on the basis of their view that SFIs and TRCs are essentially engineering labour and therefore should cause little or no fixed

²⁹⁷ This is consistent with the approach taken in previous disputes. See, for example, paragraph 4.64 of the Level 3 Determination.

²⁹⁸ Issues with re-running the LRIC model include (i) mapping our estimates of FAC onto appropriate cost components during the Relevant Period of the dispute and adjusting the costs of other components accordingly; (ii) re-running the LRIC model for all of BT and not just the services in dispute; (iii) re-running the LRIC model for seven separate years; (iv) a timing issue where BT would not be able to re-run the model until we had concluded on the appropriate level of FAC, delaying the final determination and; (v) BT may not have the data or parameter information needed to re-run the model in all years.

and common costs to be incurred. On the other hand, BT argued that DSAC was always clearly higher than FAC.

- 4.259 In the 2013 FAMR Consultation we recognised that few common costs were likely to be associated with TRC and SFI services. We said that *“the costs of TRCs and SFIs are largely incremental in nature. So, unlike some other access products (for example, those which use duct and copper), we would expect that the allocation of common costs would only have a small impact on TRCs and SFIs.”*²⁹⁹ We did however recognise that the costs of TRCs and SFIs would include a number of indirect costs such as *“vehicles, service centre costs, training, and general overheads”*³⁰⁰ and we considered that some of these, in particular general overheads, would be common across a number of services.
- 4.260 On the basis that there are some common costs associated with TRC and SFI services in the provisional conclusions we said that we would expect DSAC to exceed FAC, but only by a relatively small margin given that there are relatively few common costs compared to other types of access services.³⁰¹

Pricing papers

- 4.261 BT told us that the DSAC/FAC ratio used for TRCs and SFIs in the February 2012 pricing paper was [× 1.2-1.4] and in the December 2012 pricing paper it was [× 1.2-1.4].³⁰² BT said that the DSAC/FAC ratios of [× 1.2-1.4] and [× 1.2-1.4] were consistent with the DSAC/FAC ratio of the Special Fault Investigation component (CO989) reported in the 2010/11 and 2011/12 RFS respectively.

RFS data

- 4.262 As set out in Table 4.7 the DSAC/FAC ratio for TRCs was over 3 in most years of the Relevant Period and the ratio for external SFIs was significantly lower at between [× 1.1-1.4] between 2009/10 and 2013/14, before increasing markedly in 2014/15 to [× 1.6-1.8].
- 4.263 As noted above, one reason for the difference in the DSAC/FAC ratios is that SFI services are included within the ‘access’ increment in BT’s LRIC model while TRC services are included in the ‘other’ increment. Given that both TRCs and SFIs are network access services, we did not consider that it would be appropriate to rely on the DSAC/FAC ratios for TRCs reported in the RFS since these were not estimated

²⁹⁹ 2013 FAMR Consultation, paragraph 12.75.

³⁰⁰ 2013 FAMR Consultation, paragraph 12.74.

³⁰¹ DSACs are calculated using BT’s LRIC model. At a high level, DSACs are calculated on the basis of distributing the standalone cost of a broad increment (for example the access increment) across the services within that increment. As such, certain common costs that would be allocated to all the services provided by the firm under a FAC methodology are allocated to a smaller set of services under a DSAC methodology. On that basis, we would typically expect the DSAC for an individual service to be greater than the FAC for that service. Where the amount of common cost to be allocated is relatively small, we would expect the difference between DSAC and FAC to be correspondingly smaller than for other services which incur a larger number of common costs. See further Annex 11 of the PPC Determinations and Section 12 of the Ethernet Determinations. Section 3.4 of BT’s 2015 LRIC Relationships and Parameters document explains the calculation of DSAC in the LRIC model (available at:

<https://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2015/LRICModelRelationshipsandParameters201415.pdf>).

³⁰² BT response dated 22 July 2016 to question 1 of the 2nd section 191 notice in the TalkTalk Dispute.

by reference to the access increment and are not consistent with our view that DSAC would only exceed FAC by a relatively small margin.

- 4.264 On the other hand, we considered that the DSAC/FAC ratios for external SFIs of between [§< 1.1-1.4] reported in the RFS between 2009/10 and 2013/14 aligned with our expectation that DSAC would exceed FAC but only by a relatively small margin.³⁰³ We also considered it relevant that BT used the DSAC/FAC ratios associated with SFIs in its pricing papers for both TRC and SFI services. Therefore, for 2009/10 to 2013/14 we proposed to use the DSAC/FAC ratios for SFI services reported in the RFS to derive our DSAC estimates for both TRCs and SFIs. As there was no SFI data available for 2008/09 and we had no evidence that TRC and SFI costs were likely to have changed significantly between 2008/09 and 2009/10, we considered that it was reasonable to apply the same DSAC/FAC ratio in 2008/09 as in 2009/10.
- 4.265 For 2014/15, we considered that the DSAC/FAC ratio of [§< 1.6-1.8] for SFIs was somewhat of an outlier compared to the DSAC/FAC ratio in earlier years and it does not align with our expectation that DSAC would exceed FAC by a relatively small margin.³⁰⁴ For these reasons we did not consider that it would be appropriate to use the SFI DSAC/FAC ratio of [§< 1.6-1.8] for 2014/15, and we instead used the average DSAC/FAC ratio during the period 2011/12 to 2013/14 of [§< 1.2-1.4], consistent with our approach in the TalkTalk Dispute.³⁰⁵ Again we applied this ratio to derive our DSAC estimates for both TRCs and SFIs.

Other sources

- 4.266 BT said that TRC services are similar in nature to the maintenance and provision of copper lines and SFI services are related to the maintenance of copper lines. Therefore, it said it would expect the fixed and common costs, and the DSAC/FAC ratios, of TRC and SFI services to be similar to those of copper provision and maintenance services.³⁰⁶
- 4.267 BT provided DSAC/FAC ratios for the years 2011/12, 2012/13 and 2013/14 for MPF new provides, MPF rental, WLR basic rental and WLR basic connection services. The DSAC/FAC ratios for these services in this period ranged from 1.37 to 2.16 and averaged 1.67. We did not place any weight on these ratios because (i) they did not directly relate to TRCs and SFIs (and we have estimates of the TRC and SFI DSAC/FAC ratios from the RFS), and (ii) while these services may be broadly similar to TRCs and SFIs in that they largely represent engineering labour activities, it is

³⁰³ We recognise that it is difficult to assess what a 'relatively small margin' may be since DSAC/FAC ratios can vary significantly by service in the reported RFS. However, we would expect the DSAC/FAC ratio to be small relative to margins on other access services, especially those for which duct and other network common costs are relevant. We note that between 2009/10 and 2013/14 the average DSAC/FAC ratio for WLA and WFAEL services (which use duct and other network common costs) reported in the RFS was between 1.45 and 1.80 and the reported DSAC/FAC ratios for external SFIs of between [§< 1.1-1.4] are below these averages

³⁰⁴ We note that between 2013/14 and 2014/15 the average DSAC/FAC ratio for WLA and WFAEL services (which reported DSAC in the RFS in 2013/14) increased by around [§<]%, significantly less than the [§<]% increase reported for SFI services.

³⁰⁵ This is the average of the DSAC/FAC ratios in 2011/12, 2012/13 and 2013/14 of [§< 1.2-1.4], [§< 1.2-1.4] and [§< 1.2-1.4] respectively. We consider that the average DSAC/FAC ratio over the previous three years gives a reasonable estimate of the DSAC/FAC ratio in 2014/15.

³⁰⁶ BT submission dated 29 July 2016, paragraph 45.

possible that the non-labour activities are dissimilar to TRC and SFIs, affecting the DSAC/FAC ratios.³⁰⁷

Provisional DSAC/FAC ratios

4.268 Based on the analysis set out above we used (i) the DSAC/FAC ratios for SFI services from the RFS in 2009/10 to 2013/14, (ii) the same ratio in 2008/09 as derived from the 2009/10 RFS, and (iii) for 2014/15, the average DSAC/FAC ratio for these services over the period 2011/12 to 2013/14, to derive DSAC estimates for each SFI and TRC service. The relevant ratios are summarised in Table 4.25.

Table 4.25: Proposed DSAC/FAC ratios

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
DSAC/FAC ratio	[§< 1.2-1.4]	[§< 1.2-1.4]	[§< 1.2-1.4]	[§< 1.2-1.4]	[§< 1.2-1.4]	[§< 1.2-1.4]	[§< 1.2-1.4]

Source: Ofcom, based on information from the RFS for SFI services

TRC stores charge

4.269 In the provisional conclusions we obtained DSAC estimates for TRC stores by assuming that, [§<]³⁰⁸

Responses to the provisional conclusions

4.270 TalkTalk considered that the DSAC/FAC ratios that we applied to TRC and SFI charges are likely to be “*unreliable since [they are] derived from the RFS that Ofcom have also deemed to be unreliable*”. No respondent commented on our approach to estimating DSAC for TRC stores.

4.271 In its response to the Sky Provisional Conclusions Vodafone said that DSAC values appeared to have risen dramatically during the Relevant Period in the Sky Dispute. Vodafone included a graph showing the increases in DSAC values from 2010 to 2014/15 compared to a 2% increase line (which Vodafone said represented expected inflationary increases to salary over the same period). Vodafone argued that as DSAC values for TRCs and SFIs wholly or almost wholly reflect the cost of its engineers “*one would expect DSAC increases over time either to be steady or to be flat (particularly in 2009, when BT implemented a pay freeze)*”.³⁰⁹

Ofcom's view

DSAC for SFIs and hourly and visit TRCs

4.272 In paragraph 4.123 we said that although we do not consider that it is appropriate to use the FAC or DSAC data reported in the RFS to assess whether TRC and SFI charges were cost oriented, it may be appropriate to consider the relative relationships between FAC and DSAC from the RFS to help resolve the Disputes

³⁰⁷ In addition, the MPF and WLR rental services include costs associated with access duct which, being a common cost shared across many different services, is likely to mean the DSAC/FAC ratios for such services would be relatively higher than those services which did not use access duct, such as TRCs and SFIs.

³⁰⁸ TalkTalk provisional conclusions, paragraph 4.132.

³⁰⁹ Vodafone response to the Sky Provisional Conclusions, paragraph 5.3.

where those relationships appear reasonable and where alternative sources of information are not available.

4.273 Without re-running the LRIC model, which, for the reasons set out above, we do not consider is practicable or proportionate, the RFS is the best source of information available on the appropriate DSAC/FAC ratios to apply to our FAC estimates for TRC and SFI services. We disagree with TalkTalk that the DSAC/FAC ratios we proposed are unreliable simply because they are derived from the RFS. In the provisional conclusions we carefully considered whether the DSAC/FAC ratios derived from the RFS were appropriate for the purpose of resolving the Disputes. We explained that we would expect DSAC to exceed FAC by a relatively small amount for TRC and SFI services, and we consider that the DSAC/FAC ratios for SFI services from the RFS are largely consistent with this expectation. Where the DSAC/FAC ratio for SFI services was not consistent with our expectation, such as in 2014/15, we have adjusted the DSAC/FAC ratio.³¹⁰

4.274 We therefore consider that it is appropriate to apply the DSAC/FAC ratios from Table 4.24 to SFI and hourly and visit TRC charges for the purposes of resolving the Disputes. The resulting DSAC estimates are set out in Table 4.26. The 2009/10 column has been split to show the DSACs for visit charges before and after 17 October 2009, when BT amended its charging structure, as explained in paragraph 4.237.

Table 4.26: Unit DSACs for TRCs and SFIs, £ nominal

	2008/09	2009/10		2010/11	2011/12	2012/13	2013/14	2014/15
		1/04/09-16/10/09	17/10/09-31/03/09					
Hourly TRC – normal hours	48.97	48.29	48.29	51.82	56.50	52.35	52.00	51.06
Hourly TRC - other times	67.48	66.54	66.54	71.38	85.63	71.23	70.04	69.28
Hourly TRC - Sunday/BH	79.38	78.29	78.29	83.97	100.74	92.69	93.38	92.37
Visit TRC – normal hours	59.72	58.89	107.19	115.00	125.40	116.19	115.41	113.33
Visit TRC - other times	68.90	67.95	118.32	126.92	138.41	128.17	129.54	128.14
Visit TRC - Sunday/BH	81.43	80.31	136.52	146.44	159.71	152.57	155.44	153.76
Supplementary hourly charge – other times	18.51	18.25	18.25	19.56	29.13	18.87	18.04	18.22
Supplementary hourly charge –Sunday/BH	30.42	29.99	29.99	32.16	44.24	40.34	41.38	41.31
Supplementary visit charge – other times	9.19	9.06	11.13	11.91	13.01	11.97	14.12	14.81
Supplementary visit charge –Sunday/BH	21.72	21.41	29.34	31.44	34.31	36.38	40.03	40.44
Internal and external NTE shift						116.19	115.41	113.33
SFI1	119.43	117.79	117.79	126.38	N/A	N/A	N/A	N/A
SFI2 modules								
Base		131.92	131.92	141.54	154.34	144.15	150.59	147.87
Network		69.57	69.57	74.64	81.39	61.03	54.22	53.24
Frame		33.31	33.31	35.73	38.96	32.62	21.61	21.22
Internal Wiring		11.61	11.61	12.46	13.59	13.24	15.85	15.57
Internal Equipment		31.91	31.91	34.24	37.33	34.59	34.36	33.74
Coop		15.43	15.43	16.55	18.05	15.87	16.70	16.40

³¹⁰ We note that the DSAC/FAC ratio increases between 2010/11 and 2011/12 before falling to around the same level in 2012/13. This pattern, and the percentage change in each of these years, is broadly consistent with the DSAC/FAC ratios published in the RFS for WLA and WFAEL services.

Frame Direct		93.01	93.01	99.79	108.81	104.13	107.80	105.86
--------------	--	-------	-------	-------	--------	--------	--------	--------

TRC stores DSAC

- 4.275 For TRC stores, we have amended our FAC estimate to include [§]. In light of this, we have considered whether our approach to estimating DSAC from the provisional conclusions remains appropriate.
- 4.276 For the unit cost element of the TRC stores FAC, [§]. For the stores overhead we considered applying the same DSAC/FAC ratios that we have applied to SFI and other TRC charges. However, BT's explanation of how it estimated the FAC for stores overheads allows us to use outputs from its LRIC model and explanations provided in its document "LRIC Model Relationships and Parameters"³¹¹ to derive an appropriate DSAC/FAC ratio for stores overheads. Based on this information, we consider that it is appropriate to apply a DSAC/FAC ratio of 1 to the stores overhead element of TRC stores FAC.³¹²

4.277 The resulting DSAC estimates are set out in Table 4.27.

Table 4.27 Unit DSACs for TRC stores, £ nominal

	2011/12	2012/13	2013/14	2014/15
Internal pack	4.48	4.88	4.99	5.23
External pack	9.41	10.25	10.47	10.97
Data ext kit	4.60	5.01	5.12	5.36
Broadband front plate	6.81	7.41	7.57	7.94

Source: Ofcom

- 4.278 In response to Vodafone's comment about the upward trend in unit DSACs, we note that the DSAC values are a function of i) our approach to estimating FAC and ii) the translation to DSAC using DSAC/FAC ratios. In the Sky Provisional Conclusions, the annual average growth in the DSAC for TRCs in normal hours (from which our other FAC and DSAC estimates are derived) was 3.8% over the period 2008/09 to 2014/15. The trend Vodafone observed in the Sky Provisional Conclusions was largely the result of using historical management account information to estimate other costs within the FAC estimate. The changes we have made to estimating FAC, as explained in the previous sections, have made the FAC estimates more stable for TRCs in normal hours, and combined with the same DSAC/FAC ratios as used in the Sky Provisional Conclusions (which themselves are relatively stable over time) the annual average change in DSAC has reduced to 0.7% between 2008/09 and 2014/15. We consider this trend is more in line with Vodafone's expectation of "steady or flat" DSACs.

³¹¹ The 2014/15 version of this document is available on BT's website here:

<http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2015/index.htm>.

³¹² The reason for this is as follows. BT has estimated the stores overheads using F8 code 240490 (MHC Titan Fixed Charges In). In BT's LRIC model this F8 code is included in the cost category "PLOPNPRTTIB6ZZZZ" (Opex, Non Pay, Transfer charges In, Supplies). This can be seen in its LRIC Relationships and Parameters document published on its website. The cost volume relationship (CVR) associated with this cost category in the LRIC model is CVR216. CVR 216 has a straight line through the origin which means it is fully variable and no common costs are associated with it. This means that LRIC = FAC = DSAC and the appropriate DSAC/FAC ratio for stores overheads is 1.

Application of the DSAC test

4.279 Table 4.28 shows the results of the DSAC test for the TRC visit, hourly, supplementary and stores charges and each SFI charge. The DSAC test shows the ratio of price to DSAC so a percentage above 100% indicates that price exceeded DSAC while a percentage below 100% indicates that price was below DSAC. We have assessed each charge against our estimate of DSAC in the corresponding financial year.

Table 4.28: Revised results of the DSAC test for TRC and SFI charges, £ nominal

Financial year	2008/09	2009/10			2010/11		2011/12	2012/13		2013/14	2014/15
Price periods	1 Jan 2009-31 Mar 2009	1 Apr 2009-16 Oct 2009	17 Oct 2009-12 Mar 2010	13 Mar 2010 -31 Mar 2010	1 Apr 2010 –31 Jul 2010	1 Aug 2010-31 Mar 11	1 Apr 2011 –31 Mar 2012	1 Apr 2012 –7 Jun 2012	8 Jun 2012 –31 Mar 2013	1 Apr 2013 –31 Mar 2014	1 Apr 2014 –26 Jun 2014
Hourly TRC – normal hours											
Price	55	55	55	55	55	55	50	50	57	60	60
DSAC	48.97	48.29	48.29	48.29	51.82	51.82	56.50	52.35	52.35	52.00	51.06
Price / DSAC	112.3 %	113.9 %	113.9 %	113.9 %	106.1 %	106.1 %	88.5%	95.5%	108.9 %	115.4 %	117.5 %
Hourly TRC – other times											
Price	85	85	85	85	85	85	85	85	85.50	90	90
DSAC	67.48	66.54	66.54	66.54	71.38	71.38	85.63	71.23	71.23	70.04	69.28
Price / DSAC	126.0 %	127.7 %	127.7 %	127.7 %	119.1 %	119.1 %	99.3%	119.3 %	120.0 %	128.5 %	129.9 %
Hourly TRC - Sunday/BH											
Price	100	100	100	100	100	100	100	100	114	120	120
DSAC	79.38	78.29	78.29	78.29	83.97	83.97	100.74	92.69	92.69	93.38	92.37
Price / DSAC	126.0 %	127.7 %	127.7 %	127.7 %	119.1 %	119.1 %	99.3%	107.9 %	123.0 %	128.5 %	129.9 %
Visit TRC – normal hours											
Price	85	85	105	105	105	105	105	105	115	120	120
DSAC	59.72	58.89	107.19	107.19	115.00	115.00	125.40	116.19	116.19	115.41	113.33
Price / DSAC	142.3 %	144.3 %	98.0%	98.0%	91.3%	91.3%	83.7%	90.4%	99.0%	104.0 %	105.9 %
Visit TRC - Other times											
Price	110	110	130	130	130	130	130	130	143.50	150	150
DSAC	68.90	67.95	118.32	118.32	126.92	126.92	138.41	128.17	128.17	129.54	128.14
Price / DSAC	159.6 %	161.9 %	109.9 %	109.9 %	102.4 %	102.4 %	93.9%	101.4 %	112.0 %	115.8 %	117.1 %
Visit TRC – Sunday/BH											
Price	130	130	150	150	150	150	150	150	172	180	180
DSAC	81.43	80.31	136.52	136.52	146.44	146.44	159.71	152.57	152.57	155.44	153.76
Price / DSAC	159.6 %	161.9 %	109.9 %	109.9 %	102.4 %	102.4 %	93.9%	98.3%	112.7 %	115.8 %	117.1 %
Supplementary hourly charge – other times											

Final determinations to resolve disputes regarding BT's historical charges for SFIs and TRCs

Price	30	30	30	30	30	30	35	35	28.50	30	30
DSAC	18.51	18.25	18.25	18.25	19.56	19.56	29.13	18.87	18.87	18.04	18.22
Price / DSAC	162.1 %	164.4 %	164.4 %	164.4 %	153.3 %	153.3 %	120.2 %	185.4 %	151.0 %	166.3 %	164.7 %
Supplementary hourly charge – Sunday/BH											
Price	45	45	45	45	45	45	50	50	57	60	60
DSAC	30.42	29.99	29.99	29.99	32.16	32.16	44.24	40.34	40.34	41.38	41.31
Price / DSAC	147.9 %	150.0 %	150.0 %	150.0 %	139.9 %	139.9 %	113.0 %	124.0 %	141.3 %	145.0 %	145.2 %
Supplementary visit charge – other times											
Price	25	25	25	25	25	25	25	25	28.50	30	30
DSAC	9.19	9.06	11.13	11.13	11.91	11.91	13.01	13.01	11.97	14.12	14.81
Price / DSAC	272.1 %	276.0 %	224.6 %	224.6 %	209.8 %	209.8 %	192.1 %	192.1 %	238.0 %	212.4 %	202.6 %
Supplementary visit charge – Sunday/BH											
Price	45	45	45	45	45	45	45	45	57	60	60
DSAC	21.72	21.41	29.34	29.34	31.44	31.44	34.31	34.31	36.38	40.03	40.44
Price / DSAC	207.2 %	210.1 %	153.4 %	153.4 %	143.1 %	143.1 %	131.2 %	131.2 %	156.7 %	149.9 %	148.4 %
Internal and external NTE shift											
Price									115	120	120
DSAC									116.19	115.41	113.33
Price/DSAC									99.0%	104.0 %	105.9 %
TRC Stores internal pack											
Price							5.88	5.88	6.40	6.70	6.70
DSAC							4.48	4.88	4.88	4.99	5.23
Price/DSAC							131.1 %	120.4 %	131.1 %	134.3 %	128.1 %
TRC stores – external pack											
Price							13.70	13.70	14.90	15.60	15.60
DSAC							9.41	10.25	10.25	10.47	10.97
Price/DSAC							145.5 %	133.7 %	145.4 %	149.0 %	142.1 %
TRC stores – data ext kit											
Price							6.61	6.61	7.20	7.60	7.60
DSAC							4.60	5.01	5.01	5.12	5.36
Price/DSAC							143.6 %	132.0 %	143.7 %	148.5 %	141.7 %
TRC stores – broadband frontplate											
Price							5.83	5.83	6.40	6.70	6.70
DSAC							6.81	7.41	7.41	7.57	7.94

Final determinations to resolve disputes regarding BT's historical charges for SFIs and TRCs

Price/DSAC							85.6%	78.7%	86.3%	88.5%	84.4%
SFI1											
Price	144	144	144	144	144	160	N/A	N/A	N/A	N/A	N/A
DSAC	119.43	117.79	117.79	117.79	126.38	126.38	N/A	N/A	N/A	N/A	N/A
Price / DSAC	120.6 %	122.3 %	122.3 %	122.3 %	113.9 %	126.6 %	0.0%	0.0%	0.0%	0.0%	0.0%
SFI2 modules											
Base											
Price	N/A	N/A	N/A	95	95	95	105	105	125	130	134.25
DSAC	N/A	N/A	N/A	131.92	141.54	141.54	154.34	144.15	144.15	150.59	147.87
Price / DSAC	N/A	N/A	N/A	72.0%	67.1%	67.1%	68.0%	72.8%	86.7%	86.3%	90.8%
Network											
Price	N/A	N/A	N/A	95	95	95	75	75	75	80	80
DSAC	N/A	N/A	N/A	69.57	74.64	74.64	81.39	61.03	61.03	54.22	53.24
Price / DSAC	N/A	N/A	N/A	136.5 %	127.3 %	127.3 %	92.1%	122.9 %	122.9 %	147.5 %	150.3 %
Frame											
Price	N/A	N/A	N/A	65	65	65	75	75	70	70	70
DSAC	N/A	N/A	N/A	33.31	35.73	35.73	38.96	32.62	32.62	21.61	21.22
Price / DSAC	N/A	N/A	N/A	195.2 %	181.9 %	181.9 %	192.5 %	229.9 %	214.6 %	324.0 %	329.9 %
Internal Wiring											
Price	N/A	N/A	N/A	50	50	50	50	50	40	40	40
DSAC	N/A	N/A	N/A	11.61	12.46	12.46	13.59	13.24	13.24	15.85	15.57
Price / DSAC	N/A	N/A	N/A	430.6 %	401.3 %	401.3 %	368.0 %	377.7 %	302.2 %	252.3 %	257.0 %
Internal Equipment											
Price	N/A	N/A	N/A	50	50	50	25	25	20	20	20
DSAC	N/A	N/A	N/A	31.91	34.24	34.24	37.33	34.59	34.59	34.36	33.74
Price / DSAC	N/A	N/A	N/A	156.7 %	146.0 %	146.0 %	67.0%	72.3%	57.8%	58.2%	59.3%
Coop											
Price	N/A	N/A	N/A	35	35	35	25	25	20	15	0
DSAC	N/A	N/A	N/A	15.43	16.55	16.55	18.05	15.87	15.87	16.70	16.40
Price / DSAC	N/A	N/A	N/A	226.9 %	211.5 %	211.5 %	138.5 %	157.5 %	126.0 %	89.8%	0.0%
Frame Direct											
Price	N/A	N/A	N/A	95	95	95	105	105	115	120	120
DSAC	N/A	N/A	N/A	93.01	99.79	99.79	108.81	104.13	104.13	107.80	105.86
Price / DSAC	N/A	N/A	N/A	102.1 %	95.2%	95.2%	96.5%	100.8 %	110.4 %	111.3 %	113.4 %

Source: Ofcom.

4.280 The results of the DSAC test show that:

- For TRC charges:
 - TRC hourly charges and Sunday visit charges were below DSAC from 1 April 2011 to 7 June 2012 and above DSAC for the rest of the relevant periods;

- TRC other times and Sunday/BH hourly charges and other times visit charges were below DSAC in 2011/12 and above DSAC for the rest of the relevant periods;
 - Visit TRC charges were above DSAC from 1 January to 16 October 2009 and from 1 April 2013 to 26 June 2014 but below DSAC from 17 October 2009 to 31 March 2013;
 - Supplementary charges were above DSAC throughout the relevant periods;
 - The charges for internal and external NTE shift were below DSAC from 8 June 2012 to 31 March 2013 and above DSAC from 1 April 2013 to 26 June 2014;
 - TRC stores charges for internal pack, external pack and data ext kit were above DSAC during the whole of the Relevant Period in the TalkTalk Dispute; and
 - TRC stores charges for broadband front plate were below DSAC during the whole of the Relevant Period in the TalkTalk Dispute.
- For SFI charges:
 - SFI1 charges were above DSAC from 1 January 2009 until withdrawn in March 2011;
 - SFI2 Frame and Internal Wiring module charges were above DSAC from their introduction on 13 March 2010 until 26 June 2014;
 - SFI2 Network module charges were above DSAC in 2009/10, 2010/11, 2012/13, 2013/14 and 2014/15 but below DSAC in 2011/12;
 - SFI2 Coop module charges were above DSAC in 2009/10, 2010/11, 2011/12 and 2012/13 but below DSAC in 2013/14 and 2014/15;
 - SFI2 Base module charges were below DSAC throughout the period;
 - SFI2 Internal Equipment module charges were above DSAC in 2009/10 and 2010/11 but below DSAC in 2011/12, 2012/13, 2013/14 and 2014/15; and
 - SFI2 Frame Direct module charges were above DSAC in 2009/10, 2012/13, 2013/14 and 2014/15 but below DSAC in 2010/11 and 2011/12.

4.281 On the basis of the analysis that we have carried out above, we conclude that certain of BT's TRC and SFI charges exceeded DSAC during the relevant periods of the Disputes.³¹³

³¹³ While we find that BT's charges for certain services exceeded DSAC throughout the relevant periods of the Disputes, as explained in Section 2 BT's TRC and SFI services ceased to be subject to cost orientation obligations from 26 June 2014, shortly before the end of the relevant periods. We take

4.282 In Step 3 we consider whether there are any other relevant factors that we need to take into consideration in assessing whether BT's charges were compliant with the applicable Cost Orientation Conditions.

Step 3. Are there any other relevant factors that we need to consider in order to determine whether BT's charges were compliant with the Cost Orientation Conditions?

4.283 For the services and years in which we found BT's charges to have exceeded DSAC, we consider under Step 3 other factors that might indicate these charges were nonetheless cost oriented. We then conclude whether overcharging has occurred.

4.284 The additional factors which we consider to be relevant in this case are:

- The magnitude and duration by which charges exceeded DSAC; and
- Whether, and the extent to which, charges exceeded FAC.

4.285 We consider these factors for each of the services we have found to be in excess of DSAC for at least part of the period under Step 2, namely the TRC hourly, and visit charges, TRC supplementary charges, TRC stores (internal pack, external pack and data ext. kit) and internal and external NTE shift charge, SF11 charges and the following SF12 modular charges: Frame Direct, Network, Frame, Internal Wiring, Internal Equipment and Coop.

4.286 We could not assess the return on capital employed (ROCE) as we often do in such assessments because, as set out above, these services are associated with negligible levels of capital employed and we have not included an estimate of ROCE in our FAC estimates. Given this, reliable ROCE estimates are not available for the TRC and SFI services in question.

4.287 As noted above, BT argued that its charges were compliant with the applicable cost orientation obligations on the basis that its EBIT margins for TRCs and SFIs were consistent with the level which Ofcom considered as part of the 2012 LLU/WLR Statement. However, the context in which Ofcom reviewed EBIT margins in that Statement was Ofcom's consideration of whether to impose a charge control on BT's TRCs, rather than a review of whether BT's charges for those services were cost oriented. For the reasons set out in paragraphs 4.97 to 4.104 we do not consider that BT can place reliance on the statements made by Ofcom in the 2012 LLU/WLR Statement in relation to Openreach's returns on TRCs and SFIs. We therefore do not consider BT's EBIT margins further at Step 3 of our analysis.

Magnitude and duration by which charges exceeded DSAC

TRC hourly charges

4.288 TRC hourly charges for normal working hours exceeded DSAC by between 6% and 14% from 1 January 2009 to 31 March 2011. The charges also exceeded DSAC by 9% to 18% from 8 June 2012 to 26 June 2014. The charges were below DSAC from

this into account when we reach our conclusions on whether and for what period BT has overcharged for these services below.

1 April 2011 to 7 June 2012. BT reduced prices once (1 April 2011) before increasing charges twice; by 14% on 8 June 2012 and by 5% on 1 April 2013.

- 4.289 BT has not provided evidence that it reviewed prices against DSAC during this period except for the February 2012 pricing paper, which it used to support a subsequent increase in prices on 8 June 2012 (leading to prices exceeding DSAC), and the December 2012 pricing paper, which supported a further price increase, expanding the difference between price and DSAC to 15%. On this basis we consider that BT's hourly TRC charges for normal hours were not cost oriented in the periods 1 January 2009 to 31 March 2011 and 8 June 2012 to 26 June 2014.
- 4.290 TRC hourly charges for other times exceeded DSAC by between 19% and 30% during the period, apart from 2011/12 when the charges were slightly below DSAC. BT reviewed these charges twice during the period, increasing the charges by 0.6% on 8 June 2012 and by 5% on 1 April 2013. On the basis that charges were persistently and significantly above DSAC we consider that BT's hourly TRC charges for other times were not cost oriented for the period 1 January 2009 to 31 March 2011 and 1 April 2012 to 26 June 2014.
- 4.291 TRC hourly charges for Sunday/BH exceeded DSAC by between 8% and 30% during the period, apart from 2011/12 when the charges were slightly below DSAC. BT reviewed these charges twice during the period, increasing the charges by 14% on 8 June 2012 and by 5% on 1 April 2013. On the basis that charges were persistently and significantly above DSAC we consider that BT's hourly TRC charges for Sunday/BH were not cost oriented for the periods 1 January 2009 to 31 March 2011 and 1 April 2012 to 26 June 2014.

TRC visit charges

- 4.292 TRC visit charges for normal working hours were below DSAC from 17 October 2009 to 31 March 2013. The charges were above DSAC by 42% to 44% from 1 January 2009 to 16 October 2009 and by 4% to 6% between 1 April 2013 and 26 June 2014. BT increased its visit charges in normal hours three times; by 24% on 17 October 2009 (when it changed its charging policy to include an hour of engineering time in the visit charge), by 10% on 8 June 2012 and by 4% on 1 April 2013.
- 4.293 The excess of price over DSAC in 2013/14 and 2014/15 is relatively small, however, it occurred due to BT increasing its price in April 2013 while the DSAC stayed relatively stable.
- 4.294 Therefore, we consider that BT's TRC visit charges for normal hours were not cost oriented for the periods 1 January 2009 to 16 October 2009 and 1 April 2013 to 26 June 2014.
- 4.295 TRC visit charges for other times exceeded DSAC by between 1% and 62% during the period 1 January 2009 to 26 June 2014 with the exception of 2011/12, when the charges were below DSAC. BT increased the other times visit charges by 18% on 17 October 2009, by 10% on 8 June 2012 and by 5% on 1 April 2013. BT did not provide evidence that it reviewed prices against DSAC during this period except for the February 2012 and December 2012 pricing papers, which it used to support subsequent increases in prices for these charges. On this basis we consider that BT's TRC visit charges for other times were not cost oriented for the periods from 1 January 2009 to 31 March 2011 and from 1 April 2012 to 26 June 2014.

- 4.296 TRC visit charges for Sunday/BH were below DSAC from 1 April 2011 to 7 June 2012. The charges exceeded DSAC by between 2% and 62% over the period 1 January 2009 to 31 March 2011 and by 13% to 18% from 8 June 2012 to 26 June 2014. BT increased the Sunday/BH charges by 15% on 17 October 2009, by 15% on 8 June 2012 and by 5% on 1 April 2013.
- 4.297 BT did not provide evidence that it reviewed prices against DSAC during this period except for the February 2012 and December 2012 pricing papers, which it used to support subsequent increases in prices for these charges on 8 June 2012 and 1 April 2013. The price increased on 8 June 2012 leading to charges exceeding DSAC. On this basis we consider that BT's TRC visit charges for Sunday/BH were not cost oriented during the periods 1 January 2009 to 31 March 2011 and 8 June 2012 to 26 June 2014.

TRC supplementary charges

- 4.298 TRC supplementary hourly charges for other times exceeded DSAC by between 20% and 66% during the Relevant Period. BT increased the charge by 17% on 1 April 2011 and reduced it by 19% on 8 June 2012 before increasing it by 5% on 1 April 2013. TRC supplementary hourly charges for Sundays and bank holidays exceeded DSAC by between 13% and 50% during the Relevant Period and BT increased charges three times during the period; by 11% on 1 April 2011, by 14% on 8 June 2012 and by 5% on 1 April 2013. During the period supplementary hourly charges were persistently and significantly above DSAC. On this basis we considered that TRC supplementary charges were not cost oriented throughout the period 1 January 2009 to 26 June 2014.
- 4.299 TRC supplementary visit charges for other times exceeded DSAC by between 92% and 176% during the Relevant Period. BT increased charges twice during the period; by 14% on 8 June 2012 and by 5% on 1 April 2013. TRC supplementary visit charges for Sundays and bank holidays exceeded DSAC by between 31% and 110% and BT increased prices twice during the period; by 27% on 8 June 2012 and by 5% on 1 April 2013. During the period supplementary visit charges were persistently and significantly above DSAC. On this basis we consider that these charges were not cost oriented throughout the period 1 January 2009 to 26 June 2014.

Internal and external NTE shift

- 4.300 Internal and external NTE shift charges were below DSAC in 2012/13 and exceeded DSAC by 4% to 6% from 1 April 2013 to 26 June 2014. BT increased the charge by 4% on 1 April 2013 and the excess of charges over DSAC is due to this charge increase. On this basis we consider that BT's internal and external NTE shift charges were not cost oriented in the period from 1 April 2013 to 26 June 2014.

TRC stores charges

- 4.301 BT's charges for internal pack, external pack and data ext kit were all persistently and significantly (20% to 49%) above DSAC throughout the period 1 April 2011 to 26 June 2014. On this basis we consider that these charges were not cost oriented throughout the period 1 April 2011 to 26 June 2014.

SFI charges

- 4.302 SFI1 charges were above DSAC from 1 January 2009 to March 2011 by between 14% and 27%. BT reviewed the charges once during this period when it increased

the price by 14% on 1 August 2010 before the service was withdrawn in March 2011. On the basis that charges were persistently and significantly above DSAC we consider that BT's SFI1 charges were not cost oriented during the period before the service was withdrawn.

- 4.303 SFI2 modular charges for Frame and Internal Wiring exceeded DSAC from their introduction in March 2010 throughout the remainder of the period up to 26 June 2014, by 82% to 331%. BT reviewed these charges twice during this period, although BT only changed prices for Frame once. On the basis that charges were persistently and significantly above DSAC we consider that BT's SFI2 module charges for Frame and Internal Wiring were not cost oriented during the period 13 March 2010 to 26 June 2014.
- 4.304 With regards to the SFI2 Internal Equipment module, the price was significantly above DSAC from 13 March 2010 to 31 March 2011, by between 46% and 57%. From 1 April 2011, when the price was reduced, the internal wiring module was priced below DSAC. We therefore find that BT's charges for the SFI2 Internal Equipment module were not cost oriented from 13 March 2010 to 31 March 2011 but were cost oriented from 1 April 2011 to 26 June 2014.
- 4.305 The Coop module charge was significantly above DSAC from 13 March 2010 to 31 March 2013, by between 26% and 127%. It was below DSAC in 2013/14 and in 2014/15 (although the price appears to have been set at zero from 1 April 2014). BT reduced the price of the Coop module four times during the period. The price change on 1 April 2013 reduced the charge from £20 to £15, putting it below our estimate of DSAC in 2013/14 (£16.70). On this basis, we consider that BT's SFI Coop module charges were not cost oriented for the period 13 March 2010 to 31 March 2013.
- 4.306 The Network module charges were above DSAC from 13 March 2010 to 31 March 2011 by between 27% and 37%. The charges were below DSAC in 2011/12 and then above DSAC in 2012/13 to 2014/15 by between 23% and 50%. BT changed these prices twice during the period. We consider that the Network module charges were not cost oriented for the periods 13 March 2010 to 31 March 2011 and from 1 April 2012 to 26 June 2014.
- 4.307 The Frame Direct module charges were 2% above DSAC from 13 March 2010 to 31 March 2010. The charges were below DSAC in 2010/11 and 2011/12. The charges were again above DSAC by between 1% and 13% from 8 June 2012 to 26 June 2014. BT increased the prices three times during the period, by 11% in April 2012, 10% in June 2012 and 4% in April 2013. While we note that Frame Direct charges were 2% above DSAC for the period 13 March to 31 March 2010 when the product was introduced and then below DSAC for the next two years, we consider that when a new product is introduced, BT is expected to make sure that the charges are below DSAC. We therefore find that BT's charges were not cost oriented from 13 March 2010 to 31 March 2010. Although the charges were marginally above DSAC in the period 1 April 2012 to 7 June 2012 this was due to a reduction in DSAC in 2012/13 rather than a price increase. We note that when the prices that applied in this period were set, they were below DSAC. We therefore consider that BT's charges in this two-month period were cost oriented.
- 4.308 However, BT increased its prices on 8 June 2012 resulting in prices significantly above DSAC throughout the remainder of the period. We therefore find that BT's charges were not cost oriented from 8 June 2012 to 26 June 2014.

The extent to which charges exceed FAC

- 4.309 As a cross check, we have also considered the extent to which charges exceeded FAC for those services where prices were above DSAC. In each case, TRC and SFI charges that were above DSAC were also significantly above FAC in the relevant periods.
- 4.310 However, we have not placed any weight on this assessment in this case, given that our estimates of DSAC were based on DSAC/FAC ratios which are greater than 1 and therefore charges which we find to be above DSAC would automatically also exceed FAC.

Ofcom's conclusion on whether BT's historical TRCs and charges for SFIs were cost oriented in line with the requirements of the Cost Orientation Conditions

4.311 Based on the evidence available to us we conclude that:

- For SFI services:
 - SFI1: BT's charges were not cost oriented for the period 1 January 2009 to March 2011, when the product was withdrawn.
 - SFI2 Frame Direct module: BT's charges were not cost oriented for the periods 13 March 2010 to 31 March 2010 and 8 June 2012 to 26 June 2014.³¹⁴
 - SFI2 Base module: BT's charges were cost oriented for the period 13 March 2010 to 26 June 2014.
 - SFI2 Internal Equipment module: BT's charges were not cost oriented in the period 13 March 2010 to 31 March 2011 but were cost oriented from 1 April 2011 to 26 June 2014.
 - SFI2 Network: BT's charges were not cost oriented in the periods 13 March 2010 to 31 March 2011 and 1 April 2012 to 26 June 2014.
 - SFI 2 Frame and Internal Wiring modules: BT's charges were not cost oriented for the period 13 March 2010 to 26 June 2014.
 - SFI2 Coop module: BT's charges were not cost oriented for the period 13 March 2010 to 31 March 2013 but were cost oriented from 1 April 2013 to 26 June 2014.
- For TRC services:
 - BT's visit charges for normal hours were not cost oriented for the periods 1 January 2009 to 16 October 2009 and 1 April 2013 to 26 June 2014, but were cost oriented from 17 October 2009 to 31 March 2013.

³¹⁴ As explained above we conclude that the overcharge for each relevant service ended on 26 June 2014 as the relevant cost orientation obligations on BT ceased to apply with effect from that date (see Section 2).

- BT's visit charges for other times were not cost oriented for the periods 1 January 2009 to 31 March 2011 and 1 April 2012 to 26 June 2014 but were cost oriented from 1 April 2011 to 31 March 2012.
- BT's visit charges for Sunday/BH were not cost oriented for the periods 1 January 2009 to 31 March 2011 and 8 June 2012 to 26 June but were cost oriented from 1 April 2011 to 7 June 2012.
- BT's hourly charges for normal working hours were not cost oriented for the period 1 January 2009 to 31 March 2011 and 8 June 2012 to 26 June 2014 but were cost oriented from 1 April 2011 to 7 June 2012.
- BT's hourly charges for other times excluding Sunday/bank holidays and Sundays/bank holidays were not cost oriented for the periods 1 January 2009 to 31 March 2011 and 1 April 2012 to 26 June 2014 but were cost oriented in the period 1 April 2011 to 31 March 2012.
- BT's supplementary charges (both hourly and visit charges) for other times excluding Sunday/bank holidays and Sundays/bank holidays were not cost oriented for the period 1 January 2009 to 26 June 2014.
- BT's charges for internal and external NTE shift were not cost oriented for the period 1 April 2013 to 26 June 2014 but were cost oriented for the period 8 June 2012 to 31 March 2013.
- BT's charges for TRC stores item internal pack, external pack and data ext kit were not cost oriented for the period 1 April 2011 to 26 June 2014.
- BT's charges for TRC store item broadband front plate were cost oriented for the period 1 April 2011 to 26 June 2014.

4.312 We therefore conclude that TalkTalk and Sky were both overcharged for TRC and SFI services for those periods (between 1 April 2011 and 26 June 2014 in the TalkTalk Dispute and between 1 January 2009 and 26 June in the Sky Dispute) over which we find the above charges were not cost oriented, to the extent that those services were reasonably necessary for the use of BT's network access services including LLU and/or WLR services.³¹⁵

Step 4: Should we require BT to make repayments and if so what level should the repayments be?

4.313 In Step 3, we have concluded that BT has overcharged for certain of its TRCs and SFI services.

4.314 Where Ofcom has made a determination of the proper amount of a charge in respect of which amounts have been paid by one of the Parties to the other, section 190(2)(d) of the 2003 Act gives us the power to give a direction, enforceable by the party to whom the sums are to be paid, requiring the payment of sums by way of an adjustment of an underpayment or an overpayment.

³¹⁵ We consider that any charges between DLRIC and DSAC would be compliant with the applicable cost orientation obligations and on this basis, any charges that exceed DSAC will have resulted in an overcharge.

- 4.315 In the remainder of this section we consider whether we should exercise our discretion to require BT to make a repayment to TalkTalk and Sky, and if so, what the level of any such repayment should be.
- 4.316 In reaching our conclusion, we have been guided by our duties and Community obligations under sections 3, 4 and 4A of the 2003 Act (as amended). We have also taken account of submissions from the Parties and the findings of the CAT and the Court of Appeal in relation to Ofcom's power under section 190(2)(d) to require repayments in previous judgments.

Parties' views

- 4.317 TalkTalk is seeking a repayment of £[<] for overpayment for TRCs and SFIs purchased from BT between 1 April 2011 and 30 June 2014.
- 4.318 Sky is seeking a repayment of around £[<] for overpayment for TRCs and SFIs purchased from BT between 1 January 2009 and 30 June 2014.
- 4.319 TalkTalk calculated its estimated overpayment by calculating for each of the years from April 2011 to June 2014, the total amount of TRCs and SFIs paid by TalkTalk (excluding VAT) less an estimated FAC/DSAC. TalkTalk noted that it had assumed that the FAC and DSAC levels are similar and that the FAC level can be derived from the size of the step reduction in TRC and SFI charges at the beginning of the charge controls imposed by Ofcom from 1 July 2014 under the 2014 FAMR Statement.³¹⁶
- 4.320 Sky estimated the overcharge on the basis of the one-off adjustments ordered by Ofcom in the 2014 FAMR Statement. However, Sky noted that:

*"For the avoidance of doubt, while they are informative Sky does not assert that the levels to which charges were reduced in 2014 necessarily reflect the appropriate cost oriented level for the purposes for assessing this dispute or in considering whether BT complied with its regulatory obligations with respect to the TRCs and SFI charges from 1 July 2014. Given the difficulties in assessing reliable cost data from BT and significant concerns with respect to the 'overbilling' of worked hours that led Ofcom to rely on its own cost estimates, Sky considers it possible that the actual cost oriented level could be lower."*³¹⁷

- 4.321 BT argued that Ofcom "does not have...the power to order retroactive payments in dispute resolution proceedings, because the CRF does not permit the NRAs to order administrative payments as a remedy for past breaches".³¹⁸ BT referred to the pending Ethernet appeals before the Court of Appeal (see Section 2 above).
- 4.322 BT argued that TalkTalk's proposed methodology for calculating the amount of the repayment was fundamentally flawed. BT argued that it was inappropriate to use FAC as one of the cost standards, alongside DSAC and further, that TalkTalk's assumption that FAC and DSAC are similar is incorrect.

³¹⁶ TalkTalk submission, paragraph 3.14.

³¹⁷ Sky submission, paragraph 1.18.

³¹⁸ BT submissions dated 16 June and 29 July 2016, paragraph 7.

- 4.323 In relation to both TalkTalk and Sky's estimates of the amount of the overpayment, BT argued that it effectively amounted to asking Ofcom to retroactively apply the charge control condition applied by Ofcom under the 2014 FAMR Statement. BT considered that this was wholly inappropriate and gave rise to serious legal and policy issues.³¹⁹
- 4.324 In its response to the TalkTalk Provisional Conclusions, BT argued that, without prejudice to its arguments that Ofcom does not have the power to order a repayment (see paragraph 4.321 above), "...to the extent that such a power might generally exist, section 190(2) of the Act confers a discretion on Ofcom, i.e. Ofcom is not required to direct the repayment an overcharge".³²⁰
- 4.325 It went on to argue that a partial repayment or no repayment would better achieve the objectives of the 2003 Act and the EU Telecommunications Regulatory Framework and set out the following factors to demonstrate why this would be more appropriate in these circumstances:
- 4.325.1 BT's efforts to comply should be reflected in any repayment direction (BT made reference to the February 2012 and December 2012 pricing papers which compared prices with DSAC).
- 4.325.2 BT reasonably relied on guidance from Ofcom as set out in the 2012 Charge Control Statement and Ofcom's previous guidance should be reflected in any repayment direction.
- 4.325.3 To the extent Ofcom does not make the adjustments to overhead uplift proposed in BT's response to the TalkTalk Provisional Conclusions it would result in the DSAC ceiling being unjustifiably low and any repayment should "be reduced to correct the adoption of assumptions which have the effect of depressing the appropriate prices".³²¹
- 4.326 As discussed above, BT also argued that Ofcom should determine the amount of any repayments for SFIs on the basis of the combination of modules actually purchased by CPs by combining the bolt-on modules with the Base module. BT argued that: "it should not simply be inferred that economic harm would arise where pricing for any one module was above the estimated DSAC nor that the value of economic harm is equal to the specific level of excess above that estimated DSAC such that repayments equal to that amount is justified. Rather...repayments should be assessed by reference to the combination of modules for which the CP is actually billed in relation to any investigation. This would give full weight to the fact that the SFI base module purchased for all investigations was priced beneath its estimated DSAC ceiling."³²²
- 4.327 BT considered that its proposed approach would better meet Ofcom's duties under section 3 of the 2003 Act and argued that Ofcom "should not take a mechanistic approach to assessing the level of any overcharge that should be repaid".³²³
- 4.328 None of the other parties commented on whether a lesser repayment or no repayment would better achieve the objectives of the 2003 Act.

³¹⁹ BT submission dated 29 July 2016, paragraph 20.

³²⁰ BT response to the TalkTalk Provisional Conclusions, paragraph 44.

³²¹ BT response to the TalkTalk Provisional Conclusions, paragraph 48.

³²² BT response to the Sky Provisional Conclusions, paragraph 74.

³²³ BT response to the Sky Provisional Conclusions, paragraphs 64 and 65.

Ofcom's view

4.329 Ofcom has the power pursuant to section 190(2)(d) of the 2003 Act to direct that one party to a dispute should pay a sum to another party by way of an adjustment of an overpayment. In assessing whether it is appropriate for us to order BT to make repayments to TalkTalk and Sky in this case we have given consideration to the impact of BT's overcharging for TRC and SFI services on competition and the impact that allowing BT to retain profits realised from overcharging might have on incentives for future compliance with SMP obligations.

4.330 We disagree with BT's argument that Ofcom does not have the power to order repayments in these Disputes. In fact, Ofcom's powers to order repayment in circumstances where overcharging in breach of an SMP condition has occurred have been explicitly addressed in previous cases. For example, in the PPC Court of Appeal Judgment, the Court of Appeal considered Ofcom's power under section 190(2) to require repayments and stated that:

*"The starting point must be, in a case of overcharging in breach of an SMP condition, to order repayment of the amount of the excess charge. If, however, the payee can show some good reason why a lesser repayment or no repayment at all would better achieve the objectives of the Act and the CRF then that would provide a principled basis for Ofcom to give a direction for only a partial repayment or to make no direction for repayment at all."*³²⁴

4.331 The Court of Appeal Judgment concluded that Ofcom's discretion under section 190 of the 2003 Act was:

*"a discretion to make such order for repayment as will best achieve the objectives of the [2003] Act and the CRF on the particular facts of the case."*³²⁵

4.332 The Court held that the discretion under section 190 "must be exercised in a principled way with a view to achieving those objectives".³²⁶

4.333 Overcharging for WLA/WFAEL services, including TRCs and SFIs, distorts competition between BT and its competitors, which is ultimately detrimental to consumers. We consider that requiring BT to repay TalkTalk and Sky promotes the interests of consumers and competition, by ensuring that the SMP obligations imposed on BT are enforced. The enforcement of BT's SMP obligations protects consumers, enables other providers to compete with BT and helps to level the playing field for BT's competitors, leading to downward pressure on prices, availability of a wider range of services and improved quality of service.

4.334 We therefore believe it would be appropriate, in light of our duties to further the interests of consumers, where appropriate by promoting competition, for Ofcom to exercise its powers under section 190(2)(d) of the 2003 Act to direct BT to make repayments in the Disputes.

³²⁴ PPC Court of Appeal Judgment, paragraph 85.

³²⁵ PPC Court of Appeal Judgment, paragraph 83.

³²⁶ PPC Court of Appeal Judgment, paragraph 84.

- 4.335 In determining the appropriate amount of the repayments our starting point is that, as set out above, we should order repayment of the amount of the excess charge unless BT can show a good reason why a lesser repayment or no repayment would better achieve the objectives of the 2003 Act. As explained below we have considered BT's arguments in this regard and concluded that they do not justify Ofcom directing a lesser amount of repayment.
- 4.336 We consider that any charges between DLRIC and DSAC would have been compliant with the applicable Cost Orientation Conditions. We have therefore applied the same approach to the level of repayments in the Disputes as we have applied in previous disputes relating to BT's cost orientation obligations, which is to base the level of repayments on the difference between the level of each charge and the relevant DSAC. We set out our assessment of the amount of repayment in relation to each relevant TRC and SFI service below.
- 4.337 With regards to BT's arguments that our power to order repayments is discretionary and that we therefore should consider only a partial or no repayment we note that:
- 4.337.1 On the basis of the evidence provided to us by BT (in particular the contemporaneous pricing papers referred to above), we do not consider that the efforts made by BT to comply with the Cost Orientation Conditions are sufficient to warrant partial or no repayments. It is important to stakeholders that BT complies with its cost orientation obligations and that it makes robust estimates of DSAC when setting prices for services subject to such obligations. The evidence submitted by BT does show that, for part of the relevant periods of the Disputes, BT did seek to ensure that certain of its charges were below DSAC. However, the mere fact that BT attempted to estimate DSAC for some of the services in dispute is not sufficient to lead to a lower repayment and the analysis carried out in the pricing papers had significant weaknesses as set out in paragraphs 4.82 to 4.92. In particular, our analysis shows that many of BT's estimates were too high and the RFS cost data used were not robust. Furthermore, the relevant pricing papers did not cover the whole of the relevant periods and did not include costs for each and every TRC and SFI charge in the Disputes. In these circumstances reducing the payments would provide the wrong signals for BT in relation to its approach to ensuring compliance with its SMP obligations in future.
- 4.337.2 As set out in paragraphs 4.97 to 4.104 above we do not consider that our statements set out in the 2012 LLU/WLR Statement could be considered "guidance" on which BT was entitled to rely in the way suggested by BT.
- 4.337.3 Where we have not accepted BT's proposed adjustments to the overheads uplift it does not follow that we should nevertheless take this into account in determining the repayments.³²⁷ To the extent that we do not agree with the overhead uplifts proposed by BT then to reduce the repayments to "*correct the adoption of assumptions which have the effect of depressing the appropriate prices*" as proposed by BT would be inappropriate, as this in essence asks us to adjust the repayments to correct for assumptions we believe are appropriate for the purpose of resolving the Disputes.

³²⁷ In any event, as set out above we have adjusted our approach to estimating the uplift for indirect costs and overheads in light of the evidence submitted by BT.

- 4.338 We have also considered BT's arguments that we should determine the repayments for SFI services by reference to combinations of SFI2 modules actually purchased by CPs. For the reasons set out at paragraphs 4.44 to 4.55 above, we do not consider that it is appropriate to aggregate the bolt-on SFI modules with the Base module when assessing whether BT's charges were cost oriented. Having reached this view, in calculating the level of repayment, we therefore consider it appropriate to carry out that calculation for each TRC and SFI service individually. We do not think that it would be appropriate to calculate repayments against a different benchmark in this case and consider this approach is consistent with the Court of Appeal's finding in the PPC Court of Appeal Judgment that a counter-restitution analysis would undermine the objects of the 2003 Act and the CRF.³²⁸
- 4.339 If we were not to require repayments or only require partial repayments, BT would be able to unfairly retain the gains from overcharging, and this could provide a disincentive for it to comply with its regulatory obligations. The incentives and regulatory signals that determinations in disputes send to CPs as to how we interpret regulatory obligations, and are likely to assess future conduct, are important.
- 4.340 Finally, we do not agree with BT that our approach in assessing the level of overcharge is 'mechanistic'. Having considered all our relevant regulatory duties in exercising our discretion to order repayments, we consider that repayment is likely to best promote our regulatory objectives unless we have conflicting evidence that such an outcome would be inconsistent with our duties or the objectives of the legislative framework. We do not consider in this case that BT has shown any good reason why a lesser repayment or no repayment at all would better achieve the objectives of the 2003 Act.

Assessment of the amount of repayments

- 4.341 In order to estimate the amount of the required repayments we have calculated the difference between price and DSAC for each of the TRC and SFI services for which we have concluded BT has overcharged in paragraph 4.280. Table 4.29 sets out the overcharge we have arrived at for each relevant TRC and SFI charge in each year.

Table 4.29: Overcharge for each TRC and SFI, £ nominal

Financial year	2008/09	2009/10			2010/11		2011/12	2012/13		2013/14	2014/15
Price periods	1 Jan 2009-31 Mar 2009	1 Apr 2009-16 Oct 2009	17 Oct 2009-12 Mar 2010	13 Mar 2010 - 31 Mar 2010	1 Apr 2010 – 31 Jul 2010	1 Aug 2010 – 31 Mar 2011	1 Apr 2011 – 31 Mar 2012	1 Apr 2012 – 7 Jun 2012	8 Jun 2012 – 31 Mar 2013	1 Apr 2013 – 31 Mar 2014	1 Apr 2014 – 26 Jun 2014
TRC charges											
Hourly charge – normal working days	6.03	6.71	6.71	6.71	3.18	3.18			4.65	8.00	8.94
Hourly charge – other times ex Sunday/BH	17.52	18.46	18.46	18.46	13.62	13.62		13.77	14.27	19.96	20.72
Hourly charge – Sundays and BH	20.62	21.71	21.71	21.71	16.03	16.03		7.31	21.31	26.62	27.63
Visit charge – normal working days	25.28	26.11								4.59	6.67
Visit charge - other times ex Sunday/BH	41.10	42.05	11.68	11.68	3.08	3.08		1.83	15.33	20.46	21.86

³²⁸ PPC Court of Appeal Judgment, paragraphs 82 to 86.

Final determinations to resolve disputes regarding BT's historical charges for SFIs and TRCs

Visit charge - Sundays and BH	48.57	49.69	13.48	13.48	3.56	3.56			19.43	24.56	26.24
Supplementary hourly charge – other times ex Sunday/BH	11.49	11.75	11.75	11.75	10.44	10.44	5.87	16.13	9.63	11.96	11.78
Supplementary hourly charge – Sundays and BH	14.58	15.01	15.01	15.01	12.84	12.84	5.76	9.66	16.66	18.62	18.69
Supplementary visit charge – other times ex Sunday/BH	15.81	15.94	13.87	13.87	13.09	13.09	11.99	11.99	16.53	15.88	15.19
Supplementary visit charge – Sundays and BH	23.28	23.59	15.66	15.66	13.56	13.56	10.69	10.69	20.62	19.97	19.56
Internal and external NTE shift										4.59	6.67
TRC stores - internal pack							1.40	1.00	1.52	1.71	1.47
TRC stores - external pack							4.29	3.45	4.65	5.13	4.63
TRC stores - data ext kit							2.01	1.60	2.19	2.48	2.24
SFI1 and 2 charges											
SFI1	24.57	26.21	26.21	26.21	17.62	33.62					
Network				25.43	20.36	20.36		13.97	13.97	25.78	26.76
Frame				31.69	29.27	29.27	36.04	42.38	37.38	48.39	48.78
Internal Wiring				38.39	37.54	37.54	36.41	36.76	26.76	24.15	24.43
Coop				19.57	18.45	18.45	6.95	9.13	4.13		
Frame Direct				1.99					10.87	12.20	14.14

Source: Ofcom.

4.342 Tables 4.30 and 4.31 set out the overcharge we have arrived at for each relevant TRC and SFI charge within the scope of the TalkTalk Dispute and the Sky Dispute respectively.

Table 4.30: Overcharge for each TRC and SFI within the scope of the TalkTalk Dispute, £ nominal

Financial year	2011/12	2012/13		2013/14	2014/15
Price periods	1 Apr 2011 – 31 Mar 2012	1 Apr 2012 – 7 Jun 2012	8 Jun 2012 – 31 Mar 2013	1 Apr 2013 – 31 Mar 2014	1 Apr 2014 – 26 Jun 2014
TRC charges					
Hourly charge-normal working days			4.65	8.00	8.94
Hourly charge – other times ex Sunday/BH		13.77	14.27	19.96	20.72
Hourly charge – Sundays and BH		7.31	21.31	26.62	27.63
Visit charge – normal working days				4.59	6.67
Visit charge - other times ex Sunday/BH		1.83	15.33	20.46	21.86
Visit charge - Sundays and BH			19.43	24.56	26.24
Internal and external NTE shift				5.26	7.32
TRC stores - internal pack	1.40	1.00	1.52	1.71	1.47

Final determinations to resolve disputes regarding BT's historical charges for SFIs and TRCs

TRC stores - external pack	4.29	3.45	4.65	5.13	4.63
TRC stores - data ext kit	2.01	1.60	2.19	2.48	2.24
SFI2 charges					
Network		13.97	13.97	25.78	26.76
Frame	36.04	42.38	37.38	48.39	48.78
Internal Wiring	36.41	36.76	26.76	24.15	24.43
Coop	6.95	9.13	4.13		
Frame Direct			10.87	12.20	14.14

Source: Ofcom.

Table 4.31: Overcharge for each TRC and SFI within the scope of the Sky Dispute, £ nominal

Financial year	2008/09	2009/10			2010/11		2011/12	2012/13		2013/14	2014/15
	1 Jan 2009-31 Mar 2009	1 Apr 2009-16 Oct 2009	17 Oct 2009-12 Mar 2010	13 Mar 2010 - 31 Mar 2010	1 Apr 2010 - 31 Jul 2010	1 Aug 2010 - 31 Mar 2011	1 Apr 2011 - 31 Mar 2012	1 Apr 2012 - 7 Jun 2012	8 Jun 2012 - 31 Mar 2013	1 Apr 2013 - 31 Mar 2014	1 Apr 2014 - 26 Jun 2014
TRC charges											
Hourly charge - normal working days	6.03	6.71	6.71	6.71	3.18	3.18			4.65	8.00	8.94
Hourly charge - other times ex Sunday/BH	17.52	18.46	18.46	18.46	13.62	13.62		13.77	14.27	19.96	20.72
Hourly charge - Sundays and BH	20.62	21.71	21.71	21.71	16.03	16.03		7.31	21.31	26.62	27.63
Visit charge - normal working days	25.28	26.11								4.59	6.67
Visit charge - other times ex Sunday/BH	41.10	42.05	11.68	11.68	3.08	3.08		1.83	15.33	20.46	21.86
Visit charge - Sundays and BH	48.57	49.69	13.48	13.48	3.56	3.56			19.43	24.56	26.24
Supplementary hourly charge - other times ex Sunday/BH	11.49	11.75	11.75	11.75	10.44	10.44	5.87	16.13	9.63	11.96	11.78
Supplementary hourly charge - Sundays and BH	14.58	15.01	15.01	15.01	12.84	12.84	5.76	9.66	16.66	18.62	18.69
Supplementary visit charge - other times ex Sunday/BH	15.81	15.94	13.87	13.87	13.09	13.09	11.99	11.99	16.53	15.88	15.19
Supplementary visit charge - Sundays and BH	23.28	23.59	15.66	15.66	13.56	13.56	10.69	10.69	20.62	19.97	19.56
SFI1 and 2 charges											
SFI1	24.57	26.21	26.21	26.21	17.62	33.62					
Network				25.43	20.36	20.36		13.97	13.97	25.78	26.76
Frame				31.69	29.27	29.27	36.04	42.38	37.38	48.39	48.78
Internal Wiring				38.39	37.54	37.54	36.41	36.76	26.76	24.15	24.43
Coop				19.57	18.45	18.45	6.95	9.13	4.13		
Frame Direct				1.99					10.87	12.20	14.14

Source: Ofcom.

- 4.343 We have identified the amount by which BT has overcharged for each service in each year and consider it appropriate to direct BT to repay TalkTalk and Sky a level of repayment reflecting the full amount of the overcharge for each of these services.
- 4.344 However, we do not have the necessary information to calculate the total amount of the overcharge by BT. In particular:
- 4.344.1 We do not have sufficient information on the volumes of each service purchased by TalkTalk and Sky in the period.
- 4.344.2 TalkTalk's dispute submission indicates that the BT and TalkTalk have "*previously reached agreement on a partially overlapping claim for TRCs and SFIs*",³²⁹ which may affect the amount which BT is required to repay TalkTalk.
- 4.344.3 As set out in Section 2, BT's charges for TRCs and SFIs were subject to the applicable Cost Orientation Conditions where they were purchased in relation to BT's network access services in the WLA/WFAEL markets and were reasonably necessary for the use of those services. The obligation on BT to repay TalkTalk and Sky therefore only applies to TRCs and SFIs purchased by TalkTalk and Sky during the relevant periods of overcharge set out above to the extent that these services were reasonably necessary for the use of BT's WLA/WFAEL network access services, including its LLU services and/or WLR services.
- 4.345 TalkTalk commented that "*we do not believe there can be any doubt in practice that the TRC and SFI that TalkTalk purchases from BT are indeed "reasonably necessary" in order to offer a commercially viable LLU-based product to its end-customers. We would not expect BT to raise any arguments in this regards when it comes to calculating the amount of the overcharge to be refunded to TalkTalk.*"³³⁰
- 4.346 Whether or not TRCs and SFIs were reasonably necessary for the use of BT's WLA/WFAEL services is a question of fact. We note that we concluded in the 2014 FAMR Statement that "*we would expect a large majority of TRC and SFI services to be reasonably necessary in order for CPs to provide downstream services based on LLU and WLR and, therefore, any such services would fall within the network access requirement we are imposing on BT*".³³¹ We would therefore expect BT to have clear evidence before rejecting a claim that a TRC or SFI service was covered by the applicable Cost Orientation Conditions.
- 4.347 We have therefore left it to the Parties to agree the exact level of repayment due, based on our calculations of the difference between price and DSAC set out in Table 4.30 (TalkTalk) and Table 4.31(Sky).

Interest

- 4.348 In considering whether it would be appropriate for us to award interest on the repayment amount, and if so at what level, we have had regard to the Interest

³²⁹ TalkTalk submission, footnote 32.

³³⁰ TalkTalk response to the TalkTalk Provisional Conclusions, paragraph 5.1.

³³¹ 2014 FAMR Statement, paragraph 18.46.

Guidance set out in the Gamma Determination³³² as well as the Parties' views and the responses to the provisional conclusions.

Submissions from the Parties and interested parties

- 4.349 In their dispute submissions TalkTalk and Sky requested repayment with interest without any further submissions as to how interest should be calculated. BT argued that Ofcom does not have the power to order retrospective payments and reiterated this view in its response to the TalkTalk Provisional Conclusions, however it made no specific submissions on interest.
- 4.350 A number of stakeholders commented on the appropriate interest rate to be applied to the overcharged amount, which Ofcom proposed to be set at BoE+1% in the TalkTalk and Sky Provisional Conclusions.
- 4.351 TalkTalk considered that as Ofcom appeared to suggest that it does not have sufficient information to determine whether a higher rate might be required, it was not appropriate for Ofcom to conclude on the interest rate level. TalkTalk went on to recommend that Ofcom leave the interest rate level issue open and subject to further negotiations between parties as part of the overall settlement of the repayment.³³³
- 4.352 Vodafone queried whether the interest rate level proposed in the TalkTalk Provisional Conclusions and in the Sky Provisional Conclusions was adequate, given the length of time for which BT's TRC and SFI charges were not cost oriented. Vodafone noted that in the Interest Guidance Ofcom considered that the interest rate should generally reflect the benefit that the overcharging firm enjoys by virtue of the delay in payment, and that Ofcom had indicated that it would be willing to depart from the default rate of BoE+1% in certain circumstances.³³⁴
- 4.353 Vodafone considered that Ofcom had not given sufficient consideration to applying an alternative interest rate level, and suggested that Ofcom should give this issue further attention.³³⁵
- 4.354 Vodafone argued that it would be inappropriate to leave it to the Parties to agree the appropriate level of interest as it would lead to further dispute referrals (as BT was unlikely to agree to anything other than is the default rate identified in the Interest Guidelines).³³⁶ Vodafone submitted that we should instead apply [x] as identical considerations apply in this case as those that Ofcom took into account as part of that assessment.³³⁷
- 4.355 Sky disagreed with Ofcom's intention to use BofE+1% and submitted that the appropriate interest rate, which best puts BT back in the position it would have been

³³² On 25 October 2013, Ofcom issued a determination to resolve a dispute between Gamma and BT relating to the 'OfTel Interest Rate' contained within BT's Standard Interconnect Agreement (SIA). See http://stakeholders.ofcom.org.uk/binaries/enforcement/competition-bulletins/closed-cases/all-closed-cases/cw_01108/CW_011080613.pdf.

³³³ TalkTalk response to the TalkTalk Provisional Conclusions, paragraph 5.2.

³³⁴ Vodafone response to the TalkTalk Provisional Conclusions, paragraphs 4.1–4.3 and its response to the Sky Provisional Conclusions, paragraphs 4.1-4.3.

³³⁵ Vodafone response to the TalkTalk Provisional Conclusions, paragraph 4.4 and its response to the Sky Provisional Conclusions, paragraph 4.4.

³³⁶ Vodafone response to the Sky Provisional Conclusions, paragraphs 4.5 and 4.6.

³³⁷ Vodafone response to the Sky Provisional Conclusions, paragraph 4.7.

but for the overcharging is the post-tax nominal weighted average cost of capital (WACC) for BT Group.³³⁸

- 4.356 Sky concluded that given the facts of the Sky Dispute it "*is appropriate to consider the overcharges as leading to an increase in BT's revenue and cash, and a reduced net financing requirement given the level of capital expenditure planned by BT... Accordingly, the appropriate rate of interest is the post-tax nominal WACC for the BT Group.*"³³⁹

Ofcom's view

- 4.357 The Interest Guidance contained guidance about our approach to interest in the context of resolving a dispute involving charges payable under BT's Standard Interconnection Agreement (SIA). Although we noted that the scope of the dispute in the Gamma Determination related specifically to repayments directed by Ofcom in relation to charges payable under BT's SIA, we considered that, in principle, the Interest Guidance may also be relevant more generally to repayments directed by Ofcom relating to other products and services.³⁴⁰
- 4.358 The Interest Guidance explains that in deciding whether interest should be payable and, if so, at what rate, Ofcom will take account of all relevant considerations, with a view to setting an amount of principal plus interest which would best meet our statutory duties and regulatory objectives, in particular, with a main objective of avoiding CPs having incentives to set unduly high charges.³⁴¹
- 4.359 However, the Interest Guidance also explains that although we could seek to assess on a case-by-case basis the actual benefit to the overcharging firm as a result of the overcharge in that case, such an in-depth assessment would be complex and is unlikely to be practical. In the Interest Guidance we noted that it is important to adopt an approach which would foster commercial and regulatory certainty and that an appropriate interest rate should be readily calculable using available data.³⁴²
- 4.360 As set out in the Interest Guidance, we considered that the Bank of England base rate plus 1% (BoE+1%)³⁴³ was likely to be an appropriate rate to reflect the benefit derived by the overcharging firm from the overcharge in most cases.³⁴⁴ However, we recognised that, depending on the facts of the case and taking into account any evidence provided by the Parties, it may be appropriate to adopt a different rate in order to ensure that our objectives are met.³⁴⁵
- 4.361 None of the Parties made submissions to us as to the appropriate rate of interest ahead of us issuing our provisional conclusions, but in their responses to the provisional conclusions Sky and Vodafone have each argued that a different interest rate should apply to the default BoE+1% that we proposed, whilst TalkTalk requested that Ofcom leave the interest rate subject to further negotiation by the Parties. Both Sky and Vodafone made reference to the interest element of the Ethernet

³³⁸ Sky response to the Sky Provisional Conclusions, paragraph 3.

³³⁹ Sky response to the Sky Provisional Conclusions, paragraph 6.

³⁴⁰ Gamma Determination, paragraph 4.14.

³⁴¹ Gamma Determination, paragraph A2.1.

³⁴² Gamma Determination, paragraphs A2.9 and A2.10.

³⁴³ We noted that this is the rate which has conventionally been adopted by the High Court in commercial cases and by the CAT when awarding interest on penalties on appeal.

³⁴⁴ Gamma Determination, paragraph A2.12.

³⁴⁵ Gamma Determination, paragraph A2.13.

Determinations that was remitted back to Ofcom by the CAT. Sky referred to its arguments that interest should be set at the level of BT's WACC and Vodafone referred to Ofcom's conclusions on the remitted issues.³⁴⁶

4.362 In the circumstances, we have concluded that the most appropriate course of action would be to direct BT to pay interest on the amount of the overpayment but to leave it to the Parties to agree the appropriate level of interest. We note, in particular, that on the basis of the evidence available to us it does not appear that the level of interest that should apply on any repayments was a topic discussed by the Parties during their negotiations ahead of the Disputes being submitted. In the event that the Parties are unable to reach agreement it would remain open to any of them to submit a further dispute to Ofcom on the appropriate level of interest that should apply.

Timing of payments

4.363 As set out above, BT is currently appealing the CAT's Ethernet Judgment. One of BT's grounds of appeal relates to whether Ofcom has the power to order retrospective payments in dispute resolution proceedings under section 190 of the 2003 Act. A separate ground of appeal relates to whether Ofcom has the power to award interest when resolving disputes.

4.364 We do not agree with BT's view of Ofcom's dispute resolution powers for the reasons set out above. However, in light of the Ethernet appeals, in resolving recent disputes in relation to BT's average porting conveyance charges we determined that BT's repayment of overpayments made by Gamma and Vodafone before the dates on which the disputes were brought to Ofcom, as well as the interest on these repayments, would only have to be paid after the Court of Appeal hands down a judgment in the Ethernet appeals which is unfavourable to BT in relation to these issues.

4.365 For consistency with the way we have approached repayment in recent disputes we provisionally concluded that repayment of the overpayments made by TalkTalk and Sky for TRCs and SFIs, and the interest on those repayments, should only be payable if the Court of Appeal hands down a judgment in the Ethernet appeals which confirms Ofcom's powers to direct such repayments.

Submissions from the Parties and interested parties

4.366 In its response to both provisional conclusions BT agreed with Ofcom that it is appropriate and consistent with other recent disputes, for Ofcom to also stay any repayments (principal and interest) in these cases pending the Court of Appeal judgment in the Ethernet appeals.³⁴⁷

4.367 Sky did not agree that the repayment of overcharge and interest should only become payable if the Court of Appeal hands down a judgment in the Ethernet appeals which

³⁴⁶ Our final determinations on the remitted interest element has not yet been published as Ofcom's power to award interest in resolving disputes is the subject of BT's appeal to the Court of Appeal against the Ethernet Judgment. A document setting out our conclusions was, however, provided to the parties (which include BT, TalkTalk and Sky) on 24 August 2015. At the time we said that, in the event that BT is unsuccessful in its appeal on this issue, we would publish final determinations consistent with those conclusions following the Court of Appeal's decision. For further details see https://www.ofcom.org.uk/about-ofcom/latest/bulletins/competition-bulletins/open-cases/cw_01149.

³⁴⁷ BT response to the TalkTalk Provisional Conclusions, paragraph 15 and its response to the Sky Provisional Conclusions, paragraph 15.

confirms Ofcom's powers to direct such repayments. Sky argued that Ofcom should require BT to repay it the overpayment and interest immediately upon the issue of the final determination, rather than allow BT to continue to benefit from its breach of SMP conditions.

- 4.368 Sky stated that final judgment in the Ethernet appeals, which is due to be heard by the Court of Appeal in March 2017, may be delayed if BT decides to appeal. This would in Sky's view allow BT to continue to benefit from its breach, act as a strong disincentive on BT to resolve similar disputes in the future, risk continued distortion of competition and consumer harm in downstream retail markets, and be inconsistent with Ofcom's statutory duties to promote competition and maximise consumer benefit.
- 4.369 Gamma supported our proposal that BT's repayment, and the interest on that repayment, should only be payable if the Court of Appeal hands down a judgment in the Ethernet appeals which confirms Ofcom's powers to direct such repayments.³⁴⁸ However, Gamma argued that Ofcom had not "*prima facie made any allowance for the Ethernet Appeals to find that it erred in the use of DSAC*" and argued that Ofcom could either restructure its direction to award payments based on DSAC, with the ability to recalculate should the Court of Appeal find that it had erred, or in the alternative consider that exceptional circumstances apply in this case.³⁴⁹

Ofcom's view

- 4.370 Having reviewed the responses, we remain of the view that it is appropriate for repayments to be made following the Court of Appeal judgment in the Ethernet appeal. This approach is consistent with the way we have approached repayment in recent disputes.
- 4.371 However, we acknowledge that it is important to ensure that BT does not obtain any benefit from retaining the overcharge for a further period and have included in our directions, set out in Annex 1 and 2, that BT should pay interest on the amount of the overcharge. The interest should be calculated on the basis that it applies from the beginning of the relevant overcharge until the date of repayment by BT.
- 4.372 We do not consider it is appropriate to make allowance for the "*Ethernet Appeals to find that [Ofcom] erred in the use of DSAC*", as suggested by Gamma. Even if the CAT were to make such a finding in the Ethernet case it is not clear that this finding would apply in the circumstances of these Disputes, and we do not consider that this constitutes exceptional circumstances which would warrant Ofcom delaying issuing its Final Determinations to resolve the Disputes. We also note that none of the parties to the Disputes have suggested that Ofcom take this approach.

Wider implications of Ofcom's Final Determination

- 4.373 Vodafone submitted that Ofcom's resolution of the Disputes would have implications for all SFIs and TRCs that BT provides as ancillary services in regulated markets. Vodafone noted that, whilst SFIs are provided in relation to regulated broadband services only, TRCs are provided in relation to a variety of regulated products including WLR services, LLU services, Ethernet services and partial private circuits,

³⁴⁸ Gamma response to the TalkTalk Provisional Conclusions, pages 1 and 2.

³⁴⁹ Gamma response to the TalkTalk Provisional Conclusions, page 2.

and that similar cost orientation obligations applied to these services during the period covered by the TalkTalk Dispute³⁵⁰ and the Sky Dispute³⁵¹.

- 4.374 Vodafone stated that the cross-market nature of TRCs has been recognised by Ofcom for example in the 2013 BCMR statement where Ofcom acknowledged that Openreach charges the same [TRC] price regardless of whether the work is carried out for WLR, LLU or Ethernet services.³⁵²
- 4.375 Whilst Vodafone acknowledged that Ofcom is confined to resolving the disputes as referred to it by TalkTalk and by Sky, it suggested that Ofcom should consider confirming that Ofcom's final determination will necessarily have wider implications across a broader range of products than those which TalkTalk and Sky procures from BT, in order to avoid further dispute referrals.
- 4.376 As acknowledged by Vodafone we are confined to resolve the Disputes as referred to us. Therefore, our Final Determinations set out in Annex 1 and Annex 2 reflect the facts of, and are confined to, the Disputes as referred to us. However, if other CPs approach BT seeking repayments in respect of TRCs or SFIs on which we have found there to be an overcharge in the context of these Disputes (i.e. TRCs and SFIs provided in relation to LLU and WLR services), we would expect BT to take account of our Final Conclusions in any negotiations with those CPs.
- 4.377 Although BT may have charged the same prices for TRCs relating to Ethernet services as for those relating to LLU/WLR services during the period covered by the Disputes, we note that this does not necessarily mean that the cost of provision is the same. As such the conclusions set out in this document cannot be read directly across to other services that have not been assessed by Ofcom in the context of these Disputes.

Final Conclusions

- 4.378 Having assessed BT's costs and charges for TRC and SFI services and taken into account the submissions made by the Parties and interested parties in relation to both the TalkTalk Dispute and the Sky Dispute we conclude, for the reasons set out above, that BT has overcharged for certain TRCs and SFIs during the periods identified in paragraph 4.280 above.
- 4.379 We therefore conclude that BT should, in accordance with the findings in this document, repay TalkTalk and Sky the amounts overcharged with interest. We consider an appropriate repayment level to be the difference between the level of the charge and DSAC for each service within the scope of the Disputes.
- 4.380 We have identified the amount by which BT has overcharged for each service in each year, as set out in Tables 4.30 and 4.31. We do not have accurate information as to the volumes of each service purchased by TalkTalk and Sky and therefore have left it to the Parties to agree the exact levels of repayment that are due, based on our calculated unit charges. We have also left it to the Parties to agree an appropriate level of interest to be paid by BT on the repayments. Repayment in each case will be dependent on the outcome of the Ethernet appeals.

³⁵⁰ Vodafone response to the TalkTalk Provisional Conclusions, paragraphs 3.1 to 3.3.

³⁵¹ Vodafone response to the Sky Provisional Conclusions, paragraphs 3.1 to 3.3.

³⁵² Vodafone response to the Sky Provisional Conclusions, paragraph 3.4.

Assessment of consistency of Ofcom's conclusions with our statutory duties and Community obligations

- 4.381 In conducting our assessment of these Disputes, we have considered our general duties in section 3 of the 2003 Act and also the six 'Community requirements' set out in section 4 of the 2003 Act, which give effect, among other things, to the requirements of Article 8 of the Framework Directive.
- 4.382 In particular, we have had regard to:
- 4.382.1 our duty to further the interests of citizens in relation to communications matters and to further the interests of consumers in relevant markets, where appropriate by promoting competition (section 3(1)); and
 - 4.382.2 our duty to promote competition (section 4(3)) and to encourage, to the extent Ofcom considers it appropriate, the provision of network access and service interoperability for the purposes of securing efficiency and sustainable competition in communications markets, efficient investment and innovation and the maximum benefit for the customers of communications network and services providers (sections 4(7) and 4(8)).
- 4.383 We consider that our conclusions are consistent with these duties. Ensuring that charges are capped at a cost oriented level and that BT's SMP obligations are enforced serves to promote effective competition, and through this furthers the interests of consumers.
- 4.384 In setting out our assessment, we have also kept in mind our duty under subsection 3(3)(a) of the 2003 Act to ensure our regulatory activities are, among other things transparent, accountable, proportionate and targeted only at cases where action is needed. This document sets out the parties' arguments and reasoning that we have considered as part of arriving at our determination. Through publishing our provisional conclusions, we enabled the parties, and interested third parties, to comment on our conclusions in advance of our final determination.

Annex 1

Determination to resolve a dispute between BT and TalkTalk

Determination under sections 188 and 190 of the Communications Act 2003 ("2003 Act") for resolving a dispute between TalkTalk Telecom Group Plc ("TalkTalk") and British Telecommunications Plc ("BT") concerning BT's charges for special fault investigation services and time related charges.

WHEREAS—

(A) Section 188(2) of the 2003 Act provides that, where Ofcom has decided pursuant to section 186(2) of the 2003 Act that it is appropriate for it to handle a dispute, Ofcom must consider the dispute and make a determination for resolving it. The determination that Ofcom makes for resolving the dispute must be notified to the Parties in accordance with section 188(7) of the 2003 Act, together with a full statement of the reasons on which the determination is based. Ofcom must publish so much of its determination as (having regard, in particular, to the need to preserve commercial confidentiality) it considers appropriate to publish for bringing it to the attention of the members of the public, including to the extent that Ofcom considers pursuant to section 393(2)(a) of the 2003 Act that any such disclosure is made for the purpose of facilitating the carrying out by Ofcom of any of its functions;

(B) Section 190 of the 2003 Act sets out the scope of Ofcom's powers on resolving a dispute which may include, in accordance with section 190(2) of the 2003 Act:

- a) making a declaration setting out the rights and obligations of the parties to the dispute;
- b) giving a direction fixing the terms or conditions of transactions between the parties to the dispute;
- c) giving a direction imposing an obligation, enforceable by the parties to the dispute, to enter into a transaction between themselves on the terms and conditions fixed by Ofcom; and
- d) for the purpose of giving effect to a determination by Ofcom of the proper amount of a charge in respect of which amounts have been paid by one of the parties to the dispute to the other, giving a direction, enforceable by the party to whom sums are to be paid, requiring the payment of sums by way of adjustment of an underpayment or overpayment;

(C) On 7 October 2010, Ofcom published a statement called "*Review of the wholesale local access market*"³⁵³ (the "2010 WLA Statement") which found that BT held significant market power ("SMP") in the market for wholesale local access services within the United Kingdom but not including the Hull Area ("WLA market");

(D) In the 2010 WLA Statement, Ofcom imposed a series of SMP conditions on BT in the WLA market under section 45 of the Act, including a basis of charges obligation which

³⁵³ http://stakeholders.ofcom.org.uk/binaries/consultations/wla/statement/WLA_statement.pdf.

required: *“Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by Condition FAA1 and/or Conditions FAA9, FAA10 and FAA12 is reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed. FAA1 requires BT to provide network access on reasonable request from a third party, and also to provide such network access as Ofcom may from time to time direct.”;*

(E) On 10 May 2016, TalkTalk referred a dispute with BT to Ofcom for dispute resolution requesting a determination that BT has overcharged them for certain services, known as special fault investigation services (“SFIs”) and time related charges (“TRCs”), provided to them between 1 April 2011 and 30 June 2014 (which depends on whether or not BT’s charges for those services were cost oriented during that time) and, if so, by how much they have been overcharged and should therefore be reimbursed;

(F) Having considered the submissions TalkTalk and BT, Ofcom set the scope of the issues in dispute to be resolved as follows-

“1) Whether the amount that BT charged TalkTalk for TRCs and SFIs in the relevant period was compliant with SMP Condition FAA4.1; and

2) If not, in order to resolve the dispute between the parties, what amount BT should have charged TalkTalk for TRCs and SFIs in the relevant period and whether any repayments should be made.”.

The relevant period was defined as being between 1 April 2011 and 30 June 2014;

(G) In order to resolve this dispute, Ofcom has considered (among other things) the information provided by the parties and Ofcom has further acted in accordance with its general duties set out in section 3 and the Community requirements set out in sections 4 and 4A of the 2003 Act;

(H) A fuller explanation of the background to the dispute and Ofcom’s reasons for making this Determination is set out in the explanatory statement accompanying this Determination; and

NOW, THEREFORE, OFCOM MAKES, FOR THE REASONS SET OUT IN THE ACCOMPANYING EXPLANATORY STATEMENT, THE FOLLOWING DETERMINATION FOR RESOLVING THE DISPUTE:

I Declaration of rights and obligations, etc.

1. BT has overcharged TalkTalk for the following services (which shall each be construed as having the same meaning as provided by BT on its website for definitions and explanations of its products):

- (a) Standard Chargeable Visit (Visit plus up to 1 hour’s work)
- (b) Additional Hours (or Part thereof)
- (c) MPF Special Fault Investigation 2 (SFI2) - Network module
- (d) MPF Special Fault Investigation 2 (SFI2) - Frame module
- (e) MPF Special Fault Investigation 2 (SFI2) - Internal Wiring module
- (f) MPF Special Fault Investigation 2 (SFI2) - Coop module
- (g) MPF Special Fault Investigation 2 (SFI2) - Frame direct module

- (h) SMPF Special Fault Investigation 2 (SFI2) - Network module
- (i) SMPF Special Fault Investigation 2 (SFI2) - Frame module
- (j) SMPF Special Fault Investigation 2 (SFI2) - Internal Wiring module
- (k) SMPF Special Fault Investigation 2 (SFI2) - Coop module
- (l) SMPF Special Fault Investigation 2 (SFI2) - Frame direct module
- (m) Internal and External Shifts
- (n) Internal pack (For internal work at a normal premises)
- (o) External pack (For external work at a normal premises)
- (p) Data ext kit (Associated with Broadband Health check)

in the Relevant Period for the periods specified in the explanatory statement, where those services were reasonably necessary for the use of BT's network access services which BT was required to provide under the 2010 WLA Statement, including its local-loop and/or sub-loop unbundling services.

2. Ofcom gives a direction to BT to pay to TalkTalk, by way of adjustment of an overpayment for those services, a sum to be calculated by BT and TalkTalk in accordance with the methodology set out in the explanatory statement. Unless otherwise already paid by BT to TalkTalk, this sum shall be payable within five working days after the Court of Appeal hands down its judgment in the Ethernet Determination provided that judgment does not find that Ofcom has no jurisdiction under section 190(2) of the 2003 Act to make a direction as set out above.

3. Finally, interest shall be payable by BT to TalkTalk on the amount to be calculated by the parties in paragraph 2 above, at a rate to be agreed between BT and TalkTalk. This sum shall be payable within one month after the Court of Appeal hands down its judgment in the Ethernet Determination provided that judgment does not find that Ofcom has no jurisdiction under section 190(2) of the 2003 Act to direct BT to pay interest as set out above, unless either:

- (a) the appropriate rate of interest to be applied has been referred to Ofcom by either BT or TalkTalk for determination under section 190 of the 2003 Act, or
- (b) it has otherwise already paid by BT to TalkTalk.

In the event that the appropriate rate of interest to be applied is referred to Ofcom by either BT or TalkTalk for determination under section 190 of the 2003 Act, interest shall be payable within one month of any such determination.

II Binding nature and effective date

4. This Determination is binding on BT and TalkTalk in accordance with section 190(8) of the 2003 Act.

5. This Determination shall take effect on the day it is published.

III Interpretation

6. For the purpose of interpreting this Determination—

- a) except as otherwise defined in this Determination, words or expressions used in this Determination (and in the recitals hereto) shall have the same meaning as they have been ascribed in the 2003 Act;
- b) headings and titles shall be disregarded; and

c) the Interpretation Act 1978 shall apply as if this Determination were an Act of Parliament.

7. In this Determination—

- a) “2003 Act” means the Communications Act 2003 (c.21);
- b) “BT” means British Telecommunications plc, whose registered company number is 01800000, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, as defined by section 1159 of the Companies Act 2006;
- c) “Ethernet Determination” means British Telecommunications PLC v Office of Communications & Ors (Case No 1205-7/3/3/13);
- d) “Ofcom” means the Office of Communications;
- e) “SFIs” means special fault investigation services;
- f) “TalkTalk” means TalkTalk Telecoms Group Plc whose registered company number is 7105891, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, all as defined by section 1159 of the Companies Act 2006; and
- g) “TRCs” means time related charges.

M. Gibbs

Marina Gibbs

Competition Policy Director

A person duly authorised in accordance with paragraph 18 of the Schedule to the Office of Communications Act 2002

17 November 2016

Annex 2

Determination to resolve a dispute between BT and Sky

Determination under sections 188 and 190 of the Communications Act 2003 (“2003 Act”) for resolving a dispute between Sky UK Limited (“Sky”) and British Telecommunications Plc (“BT”) concerning BT’s charges for special fault investigation services and time related charges.

WHEREAS—

(A) Section 188(2) of the 2003 Act provides that, where Ofcom has decided pursuant to section 186(2) of the 2003 Act that it is appropriate for it to handle a dispute, Ofcom must consider the dispute and make a determination for resolving it. The determination that Ofcom makes for resolving the dispute must be notified to the Parties in accordance with section 188(7) of the 2003 Act, together with a full statement of the reasons on which the determination is based. Ofcom must publish so much of its determination as (having regard, in particular, to the need to preserve commercial confidentiality) it considers appropriate to publish for bringing it to the attention of the members of the public, including to the extent that Ofcom considers pursuant to section 393(2)(a) of the 2003 Act that any such disclosure is made for the purpose of facilitating the carrying out by Ofcom of any of its functions;

(B) Section 190 of the 2003 Act sets out the scope of Ofcom’s powers on resolving a dispute which may include, in accordance with section 190(2) of the 2003 Act:

- a) making a declaration setting out the rights and obligations of the parties to the dispute;
- b) giving a direction fixing the terms or conditions of transactions between the parties to the dispute;
- c) giving a direction imposing an obligation, enforceable by the parties to the dispute, to enter into a transaction between themselves on the terms and conditions fixed by Ofcom; and
- d) for the purpose of giving effect to a determination by Ofcom of the proper amount of a charge in respect of which amounts have been paid by one of the parties to the dispute to the other, giving a direction, enforceable by the party to whom sums are to be paid, requiring the payment of sums by way of adjustment of an underpayment or overpayment;

(C) On 28 November 2003, Oftel published a statement called “Review of the fixed narrowband wholesale exchange line, call origination, conveyance and transit markets” (the “2003 Oftel Statement”) which found that BT held significant market power (“SMP”) in the market for wholesale fixed analogue exchange line services within the United Kingdom but not including the Hull Area (“WFAEL market”);³⁵⁴

³⁵⁴ <http://stakeholders.ofcom.org.uk/binaries/consultations/750148/fixednarrowbandstatement.pdf>.

(D) In the 2003 OfTel Statement, OfTel imposed a series of SMP conditions on BT in the WFAEL market under section 45 of the 2003 Act, including a basis of charges obligation which required:

“AA3.1 Unless the Director directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of the Director, that each and every charge offered, payable or proposed for Network Access covered by Condition AA1(a) is reasonably derived from the costs of provision based on a forward looking long-run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed”;

(E) On 16 December 2004, Ofcom published a statement called “Review of the wholesale local access market” (the “2004 WLA Statement”) which found that BT held SMP in the market for wholesale local access services within the United Kingdom but not including the Hull Area (“WLA market”);³⁵⁵

(F) In the 2004 WLA Statement, Ofcom imposed a series of SMP conditions on BT in the WLA market under section 45 of the 2003 Act, including a basis of charges obligation which required:

“FA3.1 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by Condition FA1 and/or Condition FA9 is reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed”;

(G) On 15 September 2009, Ofcom published a statement called “Review of the fixed narrowband services wholesale markets” (the “2009 Narrowband Statement”) which found that BT continued to hold SMP in the WFAEL market;³⁵⁶

(H) In the 2009 Narrowband Statement, Ofcom imposed a series of SMP conditions on BT in the WFAEL market under section 45 of the 2003 Act, including a basis of charges obligation which required:

“AAA3.1 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by Condition AAA1(a) is reasonably derived from the costs of provision based on a forward looking long-run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed”;

(I) On 7 October 2010, Ofcom published its second review of the wholesale local access market³⁵⁷ (the “2010 WLA Statement”) which found that BT continued to hold SMP in the WLA market;

³⁵⁵ <http://stakeholders.ofcom.org.uk/binaries/consultations/rwlam/statement/rwlam161204.pdf>.

³⁵⁶ http://stakeholders.ofcom.org.uk/binaries/consultations/wnmr_statement_consultation/summary/main.pdf.

³⁵⁷ http://stakeholders.ofcom.org.uk/binaries/consultations/wla/statement/WLA_statement.pdf.

(J) In the 2010 WLA Statement, Ofcom imposed a series of SMP conditions on BT in the WLA market under section 45 of the 2003 Act, including a basis of charges obligation which required:

“FAA4.1 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by Condition FAA1 and/or Conditions FAA9, FAA10 and FAA12 is reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed. FAA1 requires BT to provide network access on reasonable request from a third party, and also to provide such network access as Ofcom may from time to time direct”;

(K) On 20 December 2010, Ofcom published a statement called “Review of the wholesale fixed analogue exchange lines markets” (the “2010 WFAEL Statement”) which found that BT continued to hold SMP in the WFAEL market;³⁵⁸

(L) In the 2010 WFAEL Statement, Ofcom imposed a series of SMP conditions on BT in the WFAEL market under section 45 of the 2003 Act, including a basis of charges obligation which required:

“AAAA3.1 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by Condition AAAA1(a) is reasonably derived from the costs of provision based on a forward looking long-run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed”;

(M) On 22 June 2016, Sky referred a dispute with BT to Ofcom for dispute resolution requesting a determination that BT has overcharged them for certain services, known as special fault investigation services (“SFIs”) and time related charges (“TRCs”), provided to them between 1 January 2009 and 30 June 2014 (which depends on whether or not BT’s charges for those services were cost oriented during that time) and, if so, by how much they have been overcharged and should therefore be reimbursed;

(N) Having considered the submissions from Sky and BT, Ofcom set the scope of the issues in dispute to be resolved as follows-

“1) Whether the amount that BT charged Sky for TRCs and SFIs in the relevant period was compliant with Conditions AA3, FA3, AAA3, FAA4.1 and AAAA3, as applicable; and

2) If not, in order to resolve the dispute between the parties, what amount BT should have charged Sky for TRCs and SFIs in the relevant period and whether any repayments should be made.”.

The relevant period was defined as being between 1 January 2009 and 30 June 2014;

³⁵⁸ <http://stakeholders.ofcom.org.uk/binaries/consultations/review-wholesale-fixed-exchange/statement/statement.pdf>.

(O) In order to resolve this dispute, Ofcom has considered (among other things) the information provided by the Parties and Ofcom has further acted in accordance with its general duties set out in section 3 and the Community requirements set out in sections 4 and 4A of the 2003 Act;

(P) A fuller explanation of the background to the dispute and Ofcom's reasons for making this Determination is set out in the explanatory statement accompanying this Determination; and

NOW, THEREFORE, OFCOM MAKES, FOR THE REASONS SET OUT IN THE ACCOMPANYING EXPLANATORY STATEMENT, THE FOLLOWING DETERMINATION FOR RESOLVING THE DISPUTE:

I Declaration of rights and obligations, etc.

1. BT has overcharged Sky for the following services (which shall each be construed as having the same meaning as provided by BT on its website for definitions and explanations of its products):

- (a) Standard Chargeable Visit (per call out) – pre 17 October 2009
- (b) Standard Chargeable (Visit plus up to 1 hour's work) – from 17 October 2009
- (c) Additional Hours (or Part thereof)
- (d) Supplementary charges (Per Visit or call out per engineer)
- (e) Supplementary charges (Per Hour or Part thereof)
- (f) MPF Special Fault Investigation (SFI) (product withdrawn in March 2011)
- (g) SMPF Special Fault Investigation (SFI) (product withdrawn in March 2011)
- (h) MPF Special Fault Investigation 2 (SFI2) - Network module
- (i) MPF Special Fault Investigation 2 (SFI2) - Frame module
- (j) MPF Special Fault Investigation 2 (SFI2) - Internal Wiring module
- (k) MPF Special Fault Investigation 2 (SFI2) - Internal Equipment module
- (l) MPF Special Fault Investigation 2 (SFI2) - Coop module
- (m) MPF Special Fault Investigation 2 (SFI2) - Frame direct module
- (n) SMPF Special Fault Investigation 2 (SFI2) - Network module
- (o) SMPF Special Fault Investigation 2 (SFI2) - Frame module
- (p) SMPF Special Fault Investigation 2 (SFI2) - Internal Wiring module
- (q) SMPF Special Fault Investigation 2 (SFI2) - Internal Equipment module
- (r) SMPF Special Fault Investigation 2 (SFI2) - Coop module
- (s) SMPF Special Fault Investigation 2 (SFI2) - Frame direct module

in the Relevant Period for the periods specified in the explanatory statement, where those services were reasonably necessary for the use of BT's network access services which BT was required to provide under the 2003 Oftel Statement, 2004 WLA Statement, 2009 Narrowband Statement, 2010 WLA Statement and/or 2010 WFAEL Statement, including its local-loop unbundling services, sub-loop unbundling services and/or wholesale line rental services.

2. Ofcom gives a direction to BT to pay to Sky, by way of adjustment of an overpayment for those services, a sum to be calculated by BT and Sky in accordance with the methodology set out in the explanatory statement. Unless otherwise already paid by BT to Sky, this sum shall be payable within five working days after the Court of Appeal hands down its judgment in the Ethernet Determination provided that judgment does not find that Ofcom has no jurisdiction under section 190(2) of the 2003 Act to make a direction as set out above.

3. Finally, interest shall be payable by BT to Sky on the amount to be calculated by the Parties in paragraph 2 above, at a rate to be agreed between BT and Sky. This sum shall be payable within one month after the Court of Appeal hands down its judgment in the Ethernet Determination provided that judgment does not find that Ofcom has no jurisdiction under section 190(2) of the 2003 Act to direct BT to pay interest as set out above, unless either:

- (a) the appropriate rate of interest to be applied has been referred to Ofcom by either BT or Sky for determination under section 190 of the 2003 Act, or
- (b) otherwise already paid by BT to Sky.

In the event that the appropriate rate of interest to be applied is referred to Ofcom by either BT or Sky for determination under section 190 of the 2003 Act, interest shall be payable within one month of any such determination.

II Binding nature and effective date

4. This Determination is binding on BT and Sky in accordance with section 190(8) of the 2003 Act.

5. This Determination shall take effect on the day it is published.

III Interpretation

6. For the purpose of interpreting this Determination—

- a) except as otherwise defined in this Determination, words or expressions used in this Determination (and in the recitals hereto) shall have the same meaning as they have been ascribed in the 2003 Act;
- b) headings and titles shall be disregarded; and
- c) the Interpretation Act 1978 shall apply as if this Determination were an Act of Parliament.

7. In this Determination—

- a) “2003 Act” means the Communications Act 2003 (c.21);
- b) “BT” means British Telecommunications plc, whose registered company number is 01800000, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, as defined by section 1159 of the Companies Act 2006;
- c) “Ethernet Determination” means British Telecommunications PLC v Office of Communications & Ors (Case No 1205-7/3/3/13);
- d) “Ofcom” means the Office of Communications;
- e) “SFIs” means special fault investigation services;
- f) “Sky” means Sky UK Limited whose registered company number is 02906991, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, all as defined by section 1159 of the Companies Act 2006; and
- g) “TRCs” means time related charges.

A handwritten signature in black ink that reads "M. Gibbs". The signature is written in a cursive, slightly slanted style.

Marina Gibbs

Competition Policy Director

A person duly authorised in accordance with paragraph 18 of the Schedule to the Office of Communications Act 2002

17 November 2016

Annex 3

Summary of responses

A3.1 We received four responses to the TalkTalk Provisional Conclusions (from BT, Gamma, TalkTalk and Vodafone) and three responses to the Sky Provisional Conclusions (from BT, Sky and Vodafone).

A3.2 In this Annex, we summarise the issues raised in these responses.

Ofcom's analytical framework

A3.3 In its response to the TalkTalk Provisional Conclusions, TalkTalk did not object to use of the DSAC test for individual services but argued that, on its own, the test was "manifestly insufficient" to meet Ofcom's duty to promote competition. TalkTalk noted that if BT priced all its services at their DSACs then BT would recover its common costs multiple times, contrary to the requirements of the cost orientation conditions. TalkTalk argued that a further test was required to prevent significant over-recovery.³⁵⁹

A3.4 TalkTalk referred to the two-stage test that it had proposed in the context of its appeal of the Ethernet Determinations:

"First, Ofcom's DSAC test should be applied: the charge for any individual service which was above DSAC should be reduced to DSAC. Secondly, the charges for services (either the actual charges if they were below DSAC or the charges adjusted down to DSAC) should then be aggregated in proportion to the volume sold and compared to the aggregate FAC of all BT's BES and WES services. This is not the same as a combinatorial test in the conventional sense."³⁶⁰

A3.5 TalkTalk noted Ofcom's comments in the TalkTalk Provisional Conclusions about the need to strike a balance between (i) allowing BT the flexibility to set prices for services and, (ii) the need to prevent BT from exploiting its SMP by setting unreasonable prices.³⁶¹ It claimed that its proposed two-stage test better met Ofcom's objectives than the approach taken in the TalkTalk Provisional Conclusions.³⁶²

A3.6 BT agreed with Ofcom that the correct cost standard to assess compliance is DSAC rather than FAC and that no further test is required.³⁶³ BT noted that Ofcom's approach has been upheld by the CAT on several appeals and ensures regulatory consistency. Further, that TalkTalk had on appeal unsuccessfully challenged the role and importance of the DSAC test relative to comparisons to FAC so that "it

³⁵⁹ TalkTalk response to the TalkTalk Provisional Conclusions, paragraph 2.1.

³⁶⁰ TalkTalk response to the TalkTalk Provisional Conclusions, paragraph 2.8.

³⁶¹ TalkTalk response to the TalkTalk Provisional Conclusions, paragraphs 2.3 and 2.4.

³⁶² TalkTalk response to the TalkTalk Provisional Conclusions, paragraphs 2.5 and 2.6.

³⁶³ BT response to the TalkTalk Provisional Conclusions, paragraphs 3a and 8; BT's response to the Sky Provisional Conclusions, paragraphs 4a, 9 and 10.

would be wrong for Ofcom to change its approach in its determination of the current dispute".³⁶⁴

- A3.7 BT also agreed with Ofcom that TalkTalk's argument that BT would over-recover common costs if it set all prices at DSAC is not relevant to the appropriateness of the assessment that Ofcom must do to determine whether BT can demonstrate compliance with its cost orientation obligations. Rather, BT's potential to over-recover costs is a factor to be taken into account when considering appropriate remedies.³⁶⁵

Assessment of whether BT's SFIs and TRCs were cost oriented in line with the requirements of the Cost Orientation Conditions

- A3.8 In its response to the Sky Provisional Conclusions, BT expressed a general concern about "*what appears to be, the systematic rejection of evidence (whether from BT or from Ofcom's previous considerations of TRCs and SFIs) where that evidence indicates the DSACs (or components of the analysis therein) are actually higher than those preferred by Ofcom*".³⁶⁶ BT noted that Ofcom had rejected each of the following:

- a) Data from the 2014 FAMR which suggested that a [$\%]$ uplift to direct hourly costs from the management accounting information was appropriate, rather the 30% used by Ofcom;
- b) Corrected data that BT had provided from the 2016 BCMR, which suggested a [$\%]$ uplift to management accounting information direct hourly costs was appropriate rather than the 30% proposed by Ofcom;
- c) RFS data used by BT in its pricing papers, which suggested the prices considered in the 2012 and 2013 pricing papers were compliant; and
- d) Proxy FACs (and by extension DSACs) which indicated that the FAC and DSAC for similar activities were much higher than those calculated by Ofcom for TRC and SFI activities.

- A3.9 BT also stated that Ofcom should "*also take care that it is consistent in the reasons for disregarding certain evidence. In this regard, Ofcom should not disregard evidence for a specific reason if the evidence it intends to rely upon is subject to the same complaint.*" BT therefore submitted that "*Ofcom must reconsider the full range of evidence before it. Ofcom should not dismiss evidence contrary to its preferred analysis and should put greater weight on the volume of evidence suggesting that, for example, the appropriate overhead uplift is higher than that Ofcom provisionally intends to apply*".³⁶⁷

BT's assessment of compliance

- A3.10 Other than BT, respondents agreed with Ofcom's provisional conclusions that certain of BT's TRC and SFI charges were not cost oriented. Vodafone agreed with

³⁶⁴ BT response to the TalkTalk Provisional Conclusions, paragraph 8 and BT's response to the Sky Provisional Conclusions, paragraph 10.

³⁶⁵ BT response to the TalkTalk Provisional Conclusions, paragraph 9.

³⁶⁶ BT response to the Sky Provisional Conclusions, paragraph 17.

³⁶⁷ BT response to the Sky Provisional Conclusions, paragraphs 18 and 19.

Ofcom's provisional conclusion that BT must ensure each and every TRC and SFI charge is cost oriented on a disaggregated basis.³⁶⁸

- A3.11 BT stated that “[c]ontemporaneous evidence demonstrates that BT followed a reasonable process and made due efforts to ensure compliance with SMP condition FAA4.1 as it was generally understood at that point in time”.³⁶⁹ BT claimed that it had reasonably relied on guidance from Ofcom in assessing compliance in June 2012 and March 2013 and that its charges had passed the relevant tests for compliance.³⁷⁰
- A3.12 BT further asserted that the ‘bolt-on’ Network, Frame, Internal Wiring, Internal Equipment and Coop SFI modules can only be purchased with the Base SFI module and that they were purchased in fixed proportions. BT considered that as a consequence, the assessment of the level of any overcharge (and presumably whether there had been an overcharge in the first place, though BT does not clearly state this) should be carried out on the basis of the combination of the bolt-on SFI modules with the Base SFI module.³⁷¹
- A3.13 BT argued that if the bolt-on modules were truly separate services in their own right then the cost of the modules would be higher. BT noted that a number of the bolt-on modules required an engineer to visit the customer site to carry out work and the travel time incurred would need to be included in the cost of the bolt-on module if it was separate to the Base module. BT claimed that “*it does not make economic sense to consider them separately for the purpose of assessing the level of overcharge*”.³⁷²
- A3.14 As a general point, BT argued that it is not appropriate for Ofcom to “*simply declare that it does not have sufficiently robust data to make any adjustment; a reasonable estimate should at least be included*”.³⁷³

Using management accounts data

- A3.15 TalkTalk submitted that while it accepted that Ofcom using management data was appropriate, it thought it is “*highly undesirable that Ofcom is unable to rely on the RFS since using management data increases the chance of error and of cost-overestimation*”.³⁷⁴
- A3.16 In particular, TalkTalk considered that:
- Unlike in the RFS, where costs are attributed only once, there was a risk that some costs (for example, overhead costs) were attributed more than once in the management accounts, and that this could lead to them being recovered twice;
 - the management accounts were not audited and were therefore less reliable; and

³⁶⁸ Vodafone response to the TalkTalk Provisional Conclusions, paragraph 2.2; Vodafone's response to the Sky Provisional Conclusions, paragraph 2.2.

³⁶⁹ BT response to the TalkTalk Provisional Conclusions, paragraph 5.

³⁷⁰ BT response to the TalkTalk Provisional Conclusions, paragraph 5; BT's response to the Sky Provisional Conclusions, paragraph 6.

³⁷¹ BT response to the TalkTalk Provisional Conclusions, paragraphs 5 and 40; BT's response to the Sky Provisional Conclusions, paragraph 6.

³⁷² BT response to the TalkTalk Provisional Conclusions, paragraph 36.

³⁷³ BT response to the TalkTalk Provisional Conclusions, paragraph 42.

³⁷⁴ TalkTalk response to the TalkTalk Provisional Conclusions, paragraph 3.5.

- BT could be selective in highlighting only those mistakes in Ofcom's analysis that inflated costs, rather than those that also reduced costs. TalkTalk noted that a lack of transparency meant that it was not possible for other stakeholders to counter-balance BT's bias in this regard.³⁷⁵

A3.17 TalkTalk further noted that "*BT's failure to provide robust RFS data...will favour BT. This creates a dangerous and perverse incentive for BT not to provide robust RFS data.*" Therefore, TalkTalk suggested Ofcom should not accept BT's claims regarding mistakes in Ofcom's approach that are in BT's favour unless they are balanced by mistakes that are not in BT's favour.³⁷⁶

A3.18 BT also accepted that Ofcom using management data, appropriately uplifted for overheads, was appropriate, noting that this approach was broadly consistent with Ofcom's approach in the 2014 FAMR Statement. BT emphasised that "*Ofcom must exercise caution to ensure that the assumptions it uses do in fact reflect BT's costs for the Relevant Period*" and argued that Ofcom had failed to do this, leading to a "*systematic understatement*" of BT's costs.³⁷⁷

A3.19 In particular, BT suggested Ofcom ought to be cautious when using management accounts for "*estimating indirect costs because of the difficulties in assessing the relationship between these costs and the uplift for general overheads*". BT asserted that Ofcom should not only seek to cross check the resulting total cost per hour with other sources (e.g. SFI service costs in 2014/15 and the RFS components that are similar in nature to SFI and TRC components), but should also reflect the historic movement in overhead costs in the RFS during the relevant period.³⁷⁸

A3.20 BT also noted that:³⁷⁹

3.20.1 Ofcom's concerns over the reliability of BT's data in FAMR 2014 did not extend to the use of FAC:DSAC ratios based on BT's FAC;

3.20.2 when setting the 2014 charge control for TRCs and SFIs Ofcom used such relativities, effectively endorsing their use; and

3.20.3 Ofcom's hybrid approach to generating FACs in the 2014 FAMR started with hourly pay and pay-related costs relating to TRCs from BT's management accounts. Ofcom then applied uplifts for overheads to generate hourly FAC estimates before applying the hourly TRC cost to each of the TRC and SFI services in order to set the charge control.

A3.21 Overall BT agreed in principle that using information from BT's management accounts was "*an appropriate way*" in which to determine the Disputes, subject to its concerns about Ofcom's cost modelling assumptions being addressed.³⁸⁰

³⁷⁵ TalkTalk response to the TalkTalk Provisional Conclusions, paragraph 3.5.

³⁷⁶ TalkTalk response to the TalkTalk Provisional Conclusions, paragraph 3.6.

³⁷⁷ BT response to the TalkTalk Provisional Conclusions, paragraphs 3c and 4; BT response to the Sky Provisional Conclusions, paragraphs 4b and 5.

³⁷⁸ BT response to the TalkTalk Provisional Conclusions, paragraph 11; BT's response to the Sky Provisional Conclusions, paragraph 11.

³⁷⁹ BT response to the TalkTalk Provisional Conclusions, paragraph 12 and its response to the Sky Provisional Conclusions, paragraph 12.

³⁸⁰ BT response to the TalkTalk Provisional Conclusions, paragraph 13; BT's response to the Sky Provisional Conclusions, paragraph 13.

FAC estimates

A3.22 A number of stakeholders commented on specific assumptions used for the purposes of Ofcom's FAC estimates, as set out in the two provisional conclusions documents.

Overhead costs

A3.23 A number of stakeholders commented on the 30% uplift for overhead charges which we provisionally concluded was appropriate to apply, based on our 2016 BCMR analysis.³⁸¹

A3.24 While accepting in principle that general overhead charges should be recoverable through the TRC and SFI charges, Vodafone queried the approach proposed by Ofcom in the provisional conclusions documents. Vodafone argued that as Ofcom's approach in the Sky Provisional Conclusions was backwards-looking and BT had allocated general overhead costs across regulated services, "*attributing a further allocation of overheads to TRC and SFI services would allow BT to over-recover, or possibly even double-recover these costs*".³⁸² Vodafone therefore considered that the onus should lie with BT to positively demonstrate that there was an overhead deficit that needed to be recovered through the TRC and SFI charges and that Ofcom should not allow BT to recover overheads without "*first satisfying itself that to do so would not result in over-recovery*".

A3.25 Vodafone considered a 30% uplift too high and submitted that a lower percentage uplift was more appropriate. It considered the vast majority of the TRC and SFI cost base to be labour-related and therefore not comparable to a physical product, which attracts much higher overheads.³⁸³

A3.26 TalkTalk noted that, although it was difficult to comment constructively on the assumptions used by Ofcom given the lack of transparency of the method and specific data used, it considered the 30% assumption for overhead costs to be too high, having regard to its own spend on similar cost categories. It suggested that BT's costs "*may therefore be overstated since irrelevant costs are included and/or some costs are included in the SFI/TRC cost stacks and again in the general overhead category*".³⁸⁴

A3.27 However, in its responses to the provisional conclusions documents, BT considered 30% to be too low and suggested a much higher uplift would be appropriate. It noted that such a FAC uplift is a key variable that affects any overcharge and that Ofcom had applied a 54% uplift in the 2014 FAMR. BT considered Ofcom's 30% uplift assumption to be "*an unreasonable assumption that materially understates the true uplift that should be applied to the management accounts information and consequently understates BT's actual costs*".³⁸⁵ BT argued further the fact that the FAC uplift applied by Ofcom to pay costs (based on 2014/15 costs) in the provisional conclusion documents was understated and "*therefore results in artificially depressed DSAC values which overstate any assessment of an alleged*

³⁸¹ See the TalkTalk Provisional Conclusions, paragraphs 4.97 to 4.102, and the Sky Provisional Conclusions, paragraphs 4.99 to 4.102.

³⁸² Vodafone response to the Sky Provisional Conclusions, paragraph 5.1.2.

³⁸³ Vodafone response to the TalkTalk Provisional Conclusions, paragraph 5.1.

³⁸⁴ TalkTalk response to the TalkTalk Provisional Conclusions, paragraph 3.7.

³⁸⁵ BT response to the TalkTalk Provisional Conclusions, paragraph 17.

overcharge". BT explained that the overhead costs, forming the basis of the BCMR submission, were attributed in the 2014/15 RFS on the basis of revenue. BT argued that it would be more cost reflective to adjust the attribution on the basis of the different types of costs incurred for regulated TRCs (direct labour pay costs) and unregulated TRCs (high proportion of contractor non-pay costs). BT argued that adjusting the attribution this way would have the effect of *"increasing the overheads attributed to regulated TRCs so that they are more in line with the overhead percentage used by Ofcom in the 2014 FAMR"*.³⁸⁶

A3.28 BT argued that when Ofcom's analysis of overheads was corrected *"to reflect errors and inappropriate inclusion of depreciation"*, it no longer supported an uplift of 30% but rather suggested a much higher uplift would be appropriate. BT noted that there was a mathematical error in the calculation of "General Support" and "General Management" costs as a proportion of total FAC. When this error was corrected, the range identified increased from [x]%, to [x]%, to [x]%. BT further argued that this revised range was an underestimation as our analysis of total costs included a large proportion of depreciation, whereas TRCs and SFIs do not. BT claimed that if this was taken into consideration then the uplift should be around [x]%.³⁸⁷

A3.29 BT argued that its analysis demonstrated that *"an uplift based on analysis and information from the BCMR is not appropriate. Accordingly, Ofcom should reconsider the use of the uplift figures applied in the 2014 FAMR, which actually relate to TRC and SFI services in the WLA, the relevant products under dispute in this case."*³⁸⁸

A3.30 BT also argued that the net effect of Ofcom's approach (using management accounting data for both direct costs and indirect costs within the Service Delivery unit and then uplift to allow for 'general overheads') is that Ofcom's estimate unit FAC is far lower in earlier years of the dispute period than in 2014/15³⁸⁹ as:

3.30.1 Whilst direct costs are relatively stable over the period the indirect (i.e. non-engineering pay) costs generally show *"a decreasing trend back in time. Therefore, the management accounting costs per hour are much lower in early years than in later years"*; and

3.30.2 *"Ofcom's estimate of general overheads is 30%, and this is applied to the management accounting data as a flat uplift in each year across the Relevant Period."*

A3.31 BT argued that this results in a material understatement of FAC in all years and that this increases going back in time for three reasons³⁹⁰:

3.31.1 The management accounting costs are not consistently calculated over the period. In particular, the Controls & Direct Support costs and Training costs had to be extrapolated for the years 2008/09 to 2013/13 as comparable data to 2013/14 and 2014/15 did not exist;

³⁸⁶ BT response to the Sky Provisional Conclusions, paragraph 20; BT response to the TalkTalk Provisional Conclusions, paragraphs 21 to 22.

³⁸⁷ BT response to the TalkTalk Provisional Conclusions, paragraph 19.

³⁸⁸ BT response to the TalkTalk Provisional Conclusions, paragraph 20.

³⁸⁹ BT response to the Sky Provisional Conclusions, paragraphs 21 to 22.

³⁹⁰ BT response to the Sky Provisional Conclusions, paragraph 23.

- 3.31.2 The calculation of general overheads rate of 30% is understated, and contradicted by other evidence;
- 3.31.3 Ofcom applies the 30% uplift to all years. This combined with the decrease in management accounting costs leads to an understatement of actual total hourly costs (which is worse in earlier years) resulting in the ratio of total FAC to direct pay is lower in earlier years than in later years. BT argued that this is contrary to evidence from RFS for SFI and TRCs as well as for comparable components *“all of which show higher ratios of total FAC to direct pay in the earlier years compared to later years”*.
- A3.32 BT therefore proposed that for the purpose of resolving the dispute Ofcom should instead calculate the estimated FAC for TRC and SFI services by *“applying a percentage uplift for all indirect costs compared to the direct pay costs from the management accounting data. The percentage uplift should be derived from RFS data, based on evidence for TRC and SFI components and services, cross-checked with other similar components and services.”* To support this proposal BT set out the reasons why it believed Ofcom's proposed approach was not appropriate and set out what they considered to be a more robust approach for calculating the relevant DSAC.³⁹¹

Management accounting information

- A3.33 BT noted that the management accounting data in the Sky Provisional Conclusions is very general in nature and is not specific to any particular services such as TRCs or SFIs. It had not been possible for BT to identify the various cost lines in Table 4.8 of the Sky Provisional Conclusions in a consistent manner going back in time. Although BT has had a process to report management accounting data in place since 2015, this was not in place for earlier years making it difficult for BT to identify indirect cost on a consistent basis over the relevant period.
- A3.34 BT suggested that Ofcom should consider whether more stable information was available than the management accounting information. It disagreed with Ofcom's statement that the hourly costs in Table 4.8 were reasonably stable over time. BT argued that whilst direct pay costs were stable (a 5% variation between maximum and minimum values over the period), the indirect costs were not as there was a significant variation between maximum and minimum values over the period (e.g. [x]% for engineering variable costs, [y]% variation for support costs);

RFS information

- A3.35 BT acknowledged that it was not appropriate for Ofcom to directly use the FAC for TRC and SFI services from BT's RFS as the level of direct costs contained errors and inconsistencies. However, BT argued that the ratio between indirect and direct costs for the TRC and SFI services in the RFS was more reliable as it was based on consistent application of published and audited allocation methodologies for overhead costs. Having compared this ratio for TRC and SFI services with other components involved in similar repair and provision activities BT claimed to see consistency in both the level of ratios, and the trends over the period;

³⁹¹ BT response to the Sky Provisional Conclusions, paragraphs 24 and 25.

- 3.35.1 BT raised concerns about the three sources of evidence Ofcom reviewed in the Provisional Conclusions relating to estimating an allowance for general overheads costs.
- A3.36 BT explained that its BCMR analysis of overheads for TRC services for 2014/15 was based on comparing RFS with management account information. The nature of these data sets are very different and a comparison is therefore both difficult and subjective. It is not clear how the quantification would change for earlier years as a result of changes in the identification of management accounting indirect costs. Also using TRC services for this analysis will cause distortion due to significant use of external contractors (mainly to deliver non regulated activities). BT also argued that it was unclear to them how Ofcom had estimated that [x<] % of overheads were excluded in BT's analysis and how Ofcom had identified one further category to be excluded from the overhead estimates.
- A3.37 BT reiterated its view from its response to the TalkTalk Provisional Conclusions that the 30% uplift is understated and argued that Ofcom did not object to the validity or logic of the corrections BT had made to the calculations used in the BCMR 2016 and had not objected to the principle that the BCMR calculations needed to be corrected to reflect the fact that pay costs were not shared evenly across regulated and non-regulated TRC/SFI services. BT asserted that Ofcom had dismissed that analysis on a number of incorrect grounds:³⁹²
- 3.37.1 First, BT argued that notwithstanding its concerns about the reasonableness of the range set out in the Provisional Conclusions, Ofcom appeared to consider 30% reasonable because it is in the middle of a broadly reasonable range (25% to 35%). BT was concerned about using the mid-point of the range as a starting point and then placing the onus on BT to justify any movement from the mid-point. In this regard BT argued that the cost orientation obligation affords BT pricing flexibility and claimed that the concept of "bounded flexibility"³⁹³ is undermined if Ofcom sets DSAC at an artificially low level (which BT argued that Ofcom has done here). BT noted that as Ofcom concluded that an overhead uplift in the range 25% to 35% was reasonable, even a [x<] % uplift would be reasonable. In BT's view taking a mid-point and then requiring compelling evidence to move from that point is a mechanistic approach to compliance, contrary to the view of the CAT.³⁹⁴
- 3.37.2 Second, BT argued that Ofcom's view that the corrected attribution "*results in a relatively small increase to the implied uplift to TRC costs*" is incorrect as an increase from 30% to [x<] % uplift is not relatively small in the context of the Disputes and the quantum of any alleged overcharge.
- 3.37.3 Third, BT argued that it had provided detailed evidence showing that allocations into the TRC plant group were predominantly based on pay and that it has demonstrated that the allocation from TRC component to TRC services was not in line with the way costs were allocated to the TRC component in the first place.

³⁹² BT response to the Sky Provisional Conclusions, paragraphs 40-46.

³⁹³ BT refers to Ofcom's cost orientation review, page 10.

³⁹⁴ PPC Charges Appeals, paragraphs 304 to 305.

- 3.37.4 Fourth, BT claimed that the statement in paragraph 4.120.2³⁹⁵ of the Sky Provisional Conclusions is inconsistent with Ofcom's own approach for two reasons: (i) Ofcom's own assessment is based in large part on BCMR analysis of TRC costs for 2014/15, in itself covering only 3 of 66 months, yet Ofcom appear to rely on this (whilst seeking other generic information from RFS as cross check) when resolving the dispute, and (ii) Ofcom applies 30% uplift to all years, despite the fact that allocations may have changed in earlier years (either in RFS or in the way management accounting data is calculated).
- A3.38 BT argued that Ofcom's analysis of these costs based on published RFS and other BT data is fundamentally flawed and likely to result in "*a material under-estimate of the general overhead uplift*"³⁹⁶ for the following reasons:³⁹⁷
- 3.38.1 The published data is too general to give any meaningful insight into the level of general overheads to apply to management accounting data;
- 3.38.2 the RFS data contained no clear data that can be equated to management accounting costs (the denominator in the uplift) and was insufficiently detailed to identify the appropriate level of general overheads (the numerator). BT argued that Ofcom's use of general management and general support costs was selective, and that it would be quite easy to make the case for accommodation and finance costs also to be included;
- 3.38.3 the management accounting data, and the WFAEL and WLA markets contained a far wider set of activities than SFIs and TRCs, and were dominated by capital intensive activities involved use of the network assets (whereas SFIs and TRCs are engineering in nature and make little use of the network).
- A3.39 BT also argued that Ofcom's calculation distorted the overheads with a downwards bias. BT highlighted the five different reported entities used in Ofcom's analysis in Table 4.9 of the Provisional Conclusions: TRC component, SFIs component, Openreach, WFAEL and WLA with the TRC component showing systematically higher implied uplift than the Openreach, WFAEL and WLA measures. BT argued that this was because the Openreach, WFAEL, and WLA measures had significant levels of depreciation (generally between [x]<] % and [x]<] % of total operating costs), whereas SFIs and TRCs did not (c. [x]<] to [x]<] % of operating costs) and that Ofcom's calculation therefore understated the uplift. BT included a table adjusted for depreciation that showed far higher uplifts.
- A3.40 BT considered that it was not clear to BT how we had calculated the cost exclusion for [x]<], nor how we calculated the [x]<] % relating to Ofcom's estimate of the amount of overheads associated with regulated TRC services in the RFS that were excluded from BT's analysis for the BCMR. BT concluded that even if Ofcom's adjustments were to be applied to the depreciation-adjusted numbers we would get a range between [x]<] % and [x]<] %.

³⁹⁵ Where we set out that the period covered by BT's analysis incorporates only three of 66 months of the relevant period, and it may not follow that any revised overhead uplift calculated for 2014/15 should be applied to all periods of the dispute should be applied to all periods of the dispute, especially given that BT's approach to attributing overheads has changed over time.

³⁹⁶ BT response to the Sky Provisional Conclusions, paragraph 47.

³⁹⁷ BT response to the Sky Provisional Conclusions, paragraph 48 to 55.

- A3.41 BT agreed that it would be wholly inappropriate to adjust overheads attributed using the Pay and ROA methodology, which reflect Ofcom's 2015 review of BT's cost attribution methodology, because the Disputes pre-date Ofcom's review.³⁹⁸

Exclusion of overheads from stores costs

- A3.42 BT argued that it was not appropriate for Ofcom to exclude overheads from the stores costs. BT noted that these costs related to storage costs for holding stores awaiting delivery, field order pick charges (costs to fulfil an order placed by an engineer), transportation from store to site, the management fee for running the Stores Hub and costs of supply chain testing and repair. Having analysed the costs for the service delivery unit of Openreach, BT estimated that the applicable material handling costs as a percentage of stores were [x] % (2014/15), [x] % (2013/14), [x] % (2012/13) and [x] % (2011/12).³⁹⁹

BT alternative proposal to calculate FAC for TRC and SFI services

- A3.43 BT proposed that Ofcom should calculate FAC by applying an uplift for indirect costs in relation to direct pay in the RFS as it considered Ofcom's approach flawed because of "*deficiencies in the management accounting data (reflecting that we had only routinely sourced this analysis from 2015, and it has been difficult to obtain consistent analysis throughout the relevant period), and the difficulty of comparing RFS and management accounting data to derive an uplift*".⁴⁰⁰

- A3.44 BT considered that if using its proposed methodology (applying an uplift for indirect costs in relation to direct pay) it is possible to calculate an uplift for TRC and SFI services for all relevant years which is contemporaneous with the relevant periods and that it would be possible to cross-check the reasonableness of the ratios by comparing them "*with those other components that are involved in similar repair and provision activities as TRCs and SFIs*".⁴⁰¹ BT included analysis of six other activities as follows:⁴⁰²

- 3.44.1 CL161, (MDF hardware jumpering): this comprising provision activity, and shows a similar profile of costs to TRCs in the 2014/15 RFS;
- 3.44.2 CL172 (E-side Copper Current), CL 174 (D side copper current), CL176 (local exchanges general frames current) and CL180 (Residential PSTN drop maintenance) each comprising a significant proportion of maintenance activity, and show a similar cost structure to the SFI component in the 2014/15 RFS.
- 3.44.3 BT presented a table with data for all years in the Relevant Period in the Sky Dispute which showed the uplift for indirect costs expressed as a percentage of direct pay. BT also compiled similar table for TRC and SFI services (i.e. including the SG&A component).

- A3.45 BT argued that the analysis showed a very different picture to the one that Ofcom presents in that the uplift percentage is higher in earlier years than in 2014/15,

³⁹⁸ BT response to the TalkTalk Provisional Conclusions, paragraph 14 and its response to the Sky Provisional Conclusions, paragraph 14.

³⁹⁹ BT response to the TalkTalk Provisional Conclusions, paragraph 33.

⁴⁰⁰ BT response to the Sky Provisional Conclusions, paragraph 56.

⁴⁰¹ BT response to the Sky Provisional Conclusions, paragraph 57.

⁴⁰² BT response to the Sky Provisional Conclusions, paragraphs 58 to 62.

“reflecting the way that costs were incurred and allocated in those years (and that this was the case across a wide range of components, not just TRC and SFIs)”.

- A3.46 BT considered that Ofcom should apply an uplift based on the data related to SFI component and services rather than TRC components and services as this will avoid the distortion caused by TRCs making significant use of external contractors (mainly to deliver the non-regulated TRC activities). *“By contrast the SFI service is delivered using a lower proportion of external contract labour, which is more representative of the cost structure of regulated TRC and SFI activities.”* For 2008/09, where SFI data does not exist, BT proposed that we use 2009/10 data for SFIs as a proxy.

Billing adjustment

- A3.47 Vodafone submitted that Ofcom should apply the 18% ‘billing adjustment’ made to TRC (i.e. to reflect the analysis in the 2014 FAMR Statement that BT appeared to be billing more hours than the actual hours worked by engineers for TRCs⁴⁰³) to the TRC visit charge as well.
- A3.48 Vodafone argued that *“the resetting of the additional hour charge to FAC remedies the problem of over-charging going forward. However, using the more generous DSAC methodology on a historic basis falls short of ensuring all charges are cost oriented.”*⁴⁰⁴

DSAC estimates

DSAC:FAC ratio

- A3.49 TalkTalk noted that the DSAC:FAC ratios used by Ofcom were likely to be unreliable since they were derived from the RFS, which Ofcom had deemed to be unreliable.⁴⁰⁵

DSAC values

- A3.50 Vodafone considered it counter-intuitive that the DSAC values in Table 4.17 of the TalkTalk Provisional Conclusions reflected higher DSAC values from 1 April 2011 to 31 March 2012 than from 1 April 2012 to 7 June 2012.⁴⁰⁶
- A3.51 Vodafone noted that BT's DSAC values had risen dramatically over the period of the Sky Dispute, compared to the expected inflationary salary increases over the same period of 2%. Vodafone explained that as TRCs and SFIs *“wholly or almost wholly”* reflect the cost of engineers, it would expect DSAC increases over time to be steady.⁴⁰⁷ Vodafone identified two possible reasons for the anomaly:
- i) The unit costs charged by BT for engineers' time may be overstated. Vodafone suggested that Ofcom should benchmark BT's costs against the actual subcontractor rate that BT's outsource suppliers charge to BT; or

⁴⁰³ See TalkTalk Provisional Conclusions, paragraphs 4.107 and 4.108.

⁴⁰⁴ Vodafone response to the TalkTalk Provisional Conclusions, paragraph 5.2 and its response to the Sky Provisional Conclusions, paragraph 5.2.

⁴⁰⁵ TalkTalk response to the TalkTalk Provisional Conclusions, paragraph 3.8.

⁴⁰⁶ Vodafone response to the TalkTalk Provisional Conclusions, paragraph 5.3.

⁴⁰⁷ Vodafone response to the Sky Provisional Conclusions, paragraphs 5.3.1 and 5.3.2.

- ii) BT may have allocated different costs to its engineer overhead over time and depending on the service. Vodafone suggested that it might be appropriate to isolate the relevant engineer rate for TRCs and SFIs in order to calculate correct DSAC values.

Whether BT should repay any overcharge and level of repayment

- A3.52 Other than BT, respondents agreed with Ofcom's provisional conclusion that BT ought to repay the overcharge, plus interest.
- A3.53 BT referred to its previous submissions detailing its position that Ofcom does not have the power to order any repayment.⁴⁰⁸ In the alternative, noting that Ofcom has a discretion to order repayment,⁴⁰⁹ BT submitted that Ofcom ordering a partial or no repayment "*would better achieve the objectives of the Act and EU telecommunications Regulatory Framework, including the requirements on Ofcom: a. to be transparent, accountable, consistent and targeted; to follow best regulatory practice; and c. to promote competition (ie not distort competition)*".⁴¹⁰
- A3.54 BT cited three factors that it considered demonstrated that a partial or no repayment would be more appropriate in the circumstances.⁴¹¹ These were:
- 3.54.1 Pricing papers dated 27 February 2012 and 17 December 2012 provided contemporaneous evidence which demonstrated that "*BT followed a reasonable process and made due efforts to ensure compliance with the basis of costs obligation*". BT submitted that "*[d]isregarding that evidence fails to take into account the factual matrix when ...charges were set...BT's efforts to comply should be reflected in any repayment direction*".
 - 3.54.2 BT reasonably relied on guidance from Ofcom set out in the 2012 LLU/WLR Statement in assessing its compliance in June 2012 and March 2013 and passed the relevant tests for compliance.
 - 3.54.3 If Ofcom does not adjust its calculations in line with BT's submissions, then BT considered it clear that the DSAC ceiling set by Ofcom would be "*unjustifiably low and therefore result in an over-repayment to TalkTalk*". BT submitted that "*any repayment should be reduced to correct the adoption of assumptions which have the effect of depressing the appropriate prices*".
- A3.55 BT argued that in rejecting BT's arguments Ofcom mischaracterised BT's arguments and conflated its own guidance⁴¹² in the following ways:
- 3.55.1 Ofcom did not consider BT's arguments on the important policy reasons for having due regard to its own previous guidance;
 - 3.55.2 Ofcom mischaracterised BT's submission with regards to its compliance with Ofcom guidance. BT did not argue that compliance with the EBIT

⁴⁰⁸ See BT initial submission paragraph 32, referred to in BT response of 5 September 2016 to the TalkTalk Provisional Conclusions, paragraph 44.

⁴⁰⁹ BT response to the TalkTalk Provisional Conclusions, paragraph 44 and to the Sky Provisional Conclusions, paragraph 76.

⁴¹⁰ BT response to the TalkTalk Provisional Conclusions, paragraph 47.

⁴¹¹ BT response to the TalkTalk Provisional Conclusions, paragraph 48 and to the Sky Provisional Conclusions, paragraph 79.

⁴¹² BT response to the Sky Provisional Conclusions, paragraphs 81 and 82.

margin as per the 2012 guidance was sufficient by itself, but that it demonstrated that BT was taking a robust and nuanced approach to setting prices having regards to a number of different data points. Ofcom's guidance reassured BT that its DSAC figures were appropriate.

- 3.55.3 Ofcom conflated its analysis in the 2012 Charge Control Review with its analysis in the FAMR 2014 and that this was not appropriate. In 2012 Ofcom decided it was not necessary to impose a charge control whilst observing that the overall returns for TRCs were in line with its expectations. The position in FAMR 2014 was different in that Ofcom decided to pursue a different regulatory strategy and imposed charge controls and made no judgment on the compliance of existing prices with the contemporaneous regulatory obligation.
- A3.56 Notwithstanding its views that its TRC and SFI were cost oriented, BT argued that if Ofcom was to find that its charges were not cost oriented then the repayment calculations should take account of the fact that the bolt-on SFI modules could only be purchased with the Base SFI module, which Ofcom had assessed as being priced below DSAC.⁴¹³
- A3.57 TalkTalk noted Ofcom's comment in the TalkTalk Provisional Conclusions that the obligation on BT to make repayments "*only applies to TRCs and SFIs purchased by TalkTalk during the relevant periods of overcharge ... to the extent that these services were reasonably necessary for the use of BT's WLA network access services, including its LLU services*". It asserted that there could be no doubt that in practice that its TRC and SFI purchases were reasonably necessary in order to offer a commercially viable LLU-based product to its end-customers. TalkTalk noted that it "*would not expect BT to raise any arguments in this regard when it comes to calculating the amount of the overcharge to be refunded to TalkTalk*".⁴¹⁴
- A3.58 In its response to the Sky Provisional Conclusions BT argued that in determining the amount of any repayment Ofcom should not take a mechanistic approach and specifically that we should take into account the economic and commercial reality of the structure of pricing for the SFI modules.
- A3.59 BT made the following observations:⁴¹⁵
- 3.59.1 Ofcom took a simplified, pragmatic approach to generating DSAC and applied the same assumed DSAC to FAC ratio to each of the FAC estimates for SFI modules and provisionally concluded that the price for the SFI modules was below the estimated DSAC throughout the period but that prices for certain modules were in certain years above estimated DSAC;
- 3.59.2 Any SFI2 modules required would always be purchased with an SFI Base module, never individually;
- 3.59.3 It is not incompatible with the regulatory obligation and legal precedent to assess the amount of any repayment taking into account the economic and/or commercial reality of the harm being suffered by CPs;

⁴¹³ BT response to the TalkTalk Provisional Conclusions, paragraphs 5 and 40.

⁴¹⁴ TalkTalk response to the TalkTalk Provisional Conclusions, paragraph 5.1.

⁴¹⁵ BT response to the Sky Provisional Conclusions, paragraph 64-74.

- 3.59.4 This case can be distinguished from the facts in the PPC Charges Appeals where a main link could not be purchased without a local end, but these were nevertheless in separate economic markets. SFI modules are all sold into the same economic market;
- 3.59.5 This case can be distinguished from the facts of the Ethernet Appeals as the way in which SFI modules are purchased in combinations differs from connections and rentals in those appeals. In this case the CP would purchase a specific combination of modules in fixed proportions, i.e. the base module and any one or more bolt-on modules as requires, whilst for connections and rentals the proportion purchased would vary depending on how long the circuit remained live. For example, one connection plus two years of rental or one connection plus three years of rental;
- 3.59.6 Although SFI modules relate to different activities, these cannot be described as discrete activities and demand for a module will be shaped by the specific requirements of any individual investigation carried out by Openreach;
- 3.59.7 BT's analysis showed that in close to 100% of cases CPs pre-authorise Openreach to carry out the base, network and frame modules if required and in 78% of cases, the CP is authorising Openreach to carry out all modules, if necessary. A table provided to Ofcom shows that in 67% of cases only the base module was ultimately required and 87% of cases require no more than the base, network and/or frame modules which have been pre-authorised in most cases;⁴¹⁶
- 3.59.8 BT argued that this strongly indicates that purchasing decisions are not driven by the structure of prices across the SFI modules, but by the combined price that would apply for the pre-authorised activity. All CPs are facing pre-authorising investigations based on the same combined price. The structure of pricing across the pre-authorised modules will not affect the way different CPs decide to pre-authorise those combined modules. This is different from the PPC disputes where the per km pricing of main links could impact the way individual CPs make build/buy decisions and the length of circuit they may purchase in competing;
- 3.59.9 CPs are pre-authorising modules which in the majority of cases are not needed, so the pricing structure is more beneficial to CPs compared to one that resulted in the same combined price and same combined excess of price above DSAC. BT provided a stylised example to illustrate this point; and
- 3.59.10 Given that the pre-authorisation decision is not affected by the structure of pricing for each module, it should not be inferred that economic harm would arise in each case a module is priced above DSAC, nor that the value of that harm equals the level of excess above DSAC but that repayments should be assessed by reference to the combination of modules for which the CP is actually billed giving full weight to the fact that the SFI base module purchased for each investigation was priced beneath its estimated DSAC ceiling.

⁴¹⁶ And would face a *maximum* price of one base module plus one network module plus one frame module.

Interest rate

- A3.60 A number of stakeholders commented on the appropriate interest rate to be applied to the overcharged amount, which Ofcom had provisionally concluded was likely to be BoE+1%.⁴¹⁷
- A3.61 TalkTalk considered that as Ofcom appeared to suggest that it did not have sufficient information to determine whether a higher rate might be required, it was not appropriate for Ofcom to conclude on the interest rate level. Rather, TalkTalk recommended that Ofcom leave the interest rate level issue open and subject to further negotiations between parties as part of the overall settlement of the repayment.⁴¹⁸
- A3.62 Vodafone queried whether the default rate of interest in Ofcom's Interest Guidelines was adequate, given the length of time for which BT's TRCs and SFIs charges were not cost oriented.⁴¹⁹ Vodafone noted that in the Interest Guidance Ofcom considered that the interest rate should generally reflect the benefit that the overcharging firm enjoys by virtue of the delay in payment, and that Ofcom had indicated that it would be willing to depart from the default rate of BoE+1% in certain circumstances.⁴²⁰
- A3.63 Vodafone considered that Ofcom had not given sufficient consideration to applying an alternative interest rate level, and suggested that Ofcom should give this issue further attention. In this regard, Vodafone noted that:
- 3.63.1 there was a lack of transparency in both the TalkTalk and the Sky Provisional Conclusions of the total value of repayments due to a lack of appropriate information for the calculation, which may conceal the true extent of the historic overcharging; and
 - 3.63.2 the services impacted extended beyond those in the Disputes, which also obscured the overall level of overcharging.⁴²¹
- A3.64 Vodafone argued that identical considerations apply in the Disputes to those Ofcom took into account in [§<].⁴²²
- A3.65 Vodafone objected to Ofcom's suggestion that it might leave it to the Parties to agree the appropriate level of interest if they requested Ofcom do so. Vodafone considered that such an approach would leave the Parties without a regulatory remedy if they were unable to agree the applicable interest rate and would lead to further disputes.⁴²³

⁴¹⁷ TalkTalk Provisional Conclusions, paragraph 4.188.

⁴¹⁸ TalkTalk response to the TalkTalk Provisional Conclusions, paragraph 5.2.

⁴¹⁹ Vodafone response to the TalkTalk Provisional Conclusions, paragraph 4.2 and its response to the Sky Provisional Conclusions, paragraph 4.2.

⁴²⁰ Vodafone response to the TalkTalk Provisional Conclusions, paragraph 4.3 and its response to the Sky Provisional Conclusions, paragraph 4.3.

⁴²¹ Vodafone response to the TalkTalk Provisional Conclusions, paragraph 4.4 and its response to the Sky Provisional Conclusions, paragraph 4.4.

⁴²² Vodafone response to the Sky Provisional Conclusions, paragraph 4.7.

⁴²³ Vodafone response to the Sky Provisional Conclusions, paragraphs 4.5 and 4.6 and its response to the Sky Provisional Conclusions, paragraph 4.5 and 4.6.

- A3.66 Sky disagreed with Ofcom's intention to use BofE+1% and submitted that the appropriate interest rate, which best puts BT back in the position it would have been but for the overcharging, is the post-tax nominal weighted average cost of capital (WACC) for BT Group⁴²⁴ for two key reasons. First, there were important factual reasons in this case for why overcharges cannot properly be treated as debt:
- 3.66.1 The overcharge has continued for five years (2009-2014).
 - 3.66.2 If BT was aware of the overcharge they also know that before a repayment would have to be paid several events would have to happen (such as CPs would have to identify overcharge to pursue a dispute, Ofcom would have to accept it and reach a finding, and that the decision would not be overturned on appeal).
 - 3.66.3 BT is currently disputing Ofcom's power to award repayment of overcharge (in the Ethernet case).
 - 3.66.4 As far as Sky was aware, BT has not recognised the liability for repayment of the overcharge in its accounts.
 - 3.66.5 Various characteristics of debt also do not apply when considering the nature of the overcharges.
- A3.67 Second, the benefit of the fall in net debt that arises from an overcharge benefits BT at its WACC, which itself should be broadly invariant to the extent to which BT is financed by additional debt or additional equity.⁴²⁵ Therefore *"the issues raised by Ofcom at paragraphs 3.83 to 3.84 of the Gamma Determination (that the investment behaviour of the rational firm would not change as a result of an overcharge) are besides the point, and do not lead to the conclusion that the benefit of the funds arising from overcharging is not felt by BT at its WACC"*.⁴²⁶

Timing of payments

- A3.68 Gamma supported our proposal that BT's repayment, and the interest on that repayment, only be payable if the Court of Appeal hands down a judgment in the Ethernet appeals which confirms Ofcom's powers to direct such repayments, noting that this was consistent with the approach taken by Ofcom in resolving disputes between BT and each of Gamma and Vodafone in relation to BT's average porting conveyance charges.⁴²⁷
- A3.69 Gamma noted, however, that Ofcom had not *"made any allowance for the Ethernet appeals to find that it erred in the use of DSAC"*. Gamma suggested that Ofcom should either structure its direction to award interest based on DSAC, with the ability to recalculate this should the Court of Appeal find in favour of TalkTalk in the appeal of the CAT's Ethernet Judgment, or consider that exceptional circumstances

⁴²⁴ Sky response to the Sky Provisional Conclusions, paragraph 3.

⁴²⁵ In making these points Sky referred to its Ethernet interest submission.

⁴²⁶ Sky response to the Sky Provisional Conclusions, paragraph 5.

⁴²⁷ 'Disputes between BT and each of Gamma and Vodafone in relation to BT's average porting conveyance charges', 11 November 2015. Available at:

http://webarchive.nationalarchives.gov.uk/20160702162827/http://stakeholders.ofcom.org.uk/binaries/enforcement/competition-bulletins/open-cases/all-open-cases/cw_01161/Final_Determination.pdf.

apply in this case and delay resolution of the Disputes until after the Court of Appeal judgment in that case.⁴²⁸

- A3.70 BT also noted that one of its grounds of appeal of the CAT's judgment in the Ethernet Appeals is that it considers that *"Ofcom does not have the power to order retrospective payments in dispute resolution proceedings under section 190 of the Communications Act 2003"* and that *"another of BT's grounds of appeal is that Ofcom does not have the power to impose interest (separately from its lack of power to award retrospective remedies)."* BT therefore agreed with Ofcom that it is appropriate to stay any repayments (principal as well as interest) in these cases pending the Court of Appeal Judgment in the Ethernet appeals.⁴²⁹
- A3.71 However, Sky disagreed with Ofcom's provisional conclusion and submitted that Ofcom *"must require that BT repay Sky the overcharge and interest immediately upon issue of the Final Determination, rather than allow BT to continue to benefit from its breach of its SMP conditions while other communications providers await the case to be heard in the Ethernet case and the CA's judgment"*.⁴³⁰
- A3.72 Sky argued that although the Ethernet case is scheduled to be heard by the Court of Appeal in March 2017 and that it may be almost nine years after Sky became affected by BT's breach of its SMP conditions this could be even later if BT decides to appeal the Judgment to the Supreme Court a point of law is referred to the European Court of Justice.⁴³¹
- A3.73 Sky therefore argued that *"allowing BT to continue to benefit materially from its breach for an even longer period of time undermines regulatory certainty, acts as a strong disincentive on BT to resolve similar disputes in the future and risks continuing to distort competition and harm consumers in downstream retail markets. At its simplest, delaying repayment will allow BT to employ the overcharge and interest over the intervening period and deny Sky the ability to do so. Delaying repayment in this way is, in Sky's view, inconsistent with Ofcom's statutory duties to promote competition and maximise consumer benefits as set out in sections 3 and 4 of the Communications Act 2003."*⁴³²
- A3.74 Accordingly, Sky urged Ofcom to require that BT immediately following a Final Determination engage with Sky to determine the amount of the overcharge; and upon conclusion of those discussions, repay Sky the overcharged amount plus interest immediately and that in the event that they are unable to agree the amount overcharged Ofcom must re-open the Dispute to ensure that BT does not continue to benefit from the overcharge.

⁴²⁸ Gamma response to the TalkTalk Provisional Conclusions, pages 1 and 2.

⁴²⁹ BT response to the Sky Provisional Conclusions, paragraph 15.

⁴³⁰ Sky response to the Sky Provisional Conclusions, paragraph 8.

⁴³¹ Sky response to the Sky Provisional Conclusions, paragraph 10.

⁴³² Sky response to the Sky Provisional Conclusions, paragraph 11.

Other stakeholder comments

BT's alleged non-compliance with regulatory obligations

A3.75 TalkTalk alleged that the TalkTalk Provisional Conclusions provided evidence that BT had breached certain regulatory obligations and encouraged Ofcom to begin an own initiative investigation in to BT's compliance with various SMP obligations.⁴³³

"Yet it is now quite clear that BT:

- Did not maintain adequately accurate or detailed cost information;*
- In some cases, set prices above its own estimates (albeit inaccurate) of DSAC; and*
- In some cases, did not even conduct checks whether its prices were compliant."⁴³⁴*

A3.76 Specifically, TalkTalk considered that BT had breached SMP condition FAA4.1 as "BT has not demonstrated, nor has been able to demonstrate to the satisfaction of Ofcom that its charges are cost oriented".⁴³⁵

A3.77 TalkTalk also considered that BT had breached its financial reporting obligations set out in SMP condition OA2 as "*the state of BT's financial reporting does not allow Ofcom to monitor effectively BT's compliance with the cost-orientation obligations*".⁴³⁶

Wider implications of Ofcom's Final Determination

A3.78 Vodafone submitted that Ofcom's Final Determination would have implications for all SFIs and TRCs that BT provides as ancillary services in regulated markets. Vodafone noted that TRCs and SFIs are provided in relation to a variety of regulated products including WLR services, LLU services, Ethernet services and partial private circuits, and that similar cost orientation obligations applied in relation to these services during the relevant period in the Disputes.⁴³⁷

A3.79 While Vodafone acknowledged that Ofcom was confined to resolving the disputes as referred to it by TalkTalk and Sky, it suggested that Ofcom should consider confirming that the Final Determination would have implications for TRCs and SFIs across a broader range of products than those which TalkTalk and Sky had procured from BT, in order to avoid further dispute referrals.⁴³⁸

⁴³³ TalkTalk response to the TalkTalk Provisional Conclusions paragraphs 1.3 and 4.1.

⁴³⁴ TalkTalk response to the TalkTalk Provisional Conclusions, paragraph 1.3.

⁴³⁵ TalkTalk response to the TalkTalk Provisional Conclusions, paragraph 4.3.

⁴³⁶ TalkTalk response to the TalkTalk Provisional Conclusions, paragraph 4.4.

⁴³⁷ Vodafone response to the TalkTalk Provisional Conclusions, paragraphs 3.1 to 3.3; Vodafone response to the Sky Provisional Conclusions, paragraph 3.1.

⁴³⁸ Vodafone response to the TalkTalk Provisional Conclusions, paragraph 3.5; Vodafone response to the Sky Provisional Conclusions, paragraph 3.5.

Annex 4

SMP Conditions

Introduction

This annex sets out, for ease of reference, the SMP Conditions that are most relevant to this Dispute. The SMP Conditions, along with the relevant accompanying explanatory statements, were published in the following Oftel and Ofcom documents:

- The 2003 Oftel Statement.
- The 2004 WLA Statement.
- The 2009 Narrowband Statement.
- The 2010 WLA Statement.
- The 2010 WFAEL Statement.⁴³⁹

SMP conditions – 2003 Oftel Statement

Condition AA1(a) - Requirement to provide Network Access on reasonable request

AA1(a).1 Where a Third Party reasonably requests in writing Network Access, the Dominant Provider shall provide that Network Access. The Dominant Provider shall also provide such Network Access as the Director may from time to time direct.

AA1(a).2 The provision of Network Access in accordance with paragraph AA1(a).1 above shall occur as soon as it is reasonably practicable and shall be provided on fair and reasonable terms, conditions and charges and on such terms, conditions and charges as the Director may from time to time direct.

AA1(a).3 The Dominant Provider shall comply with any direction the Director may make from time to time under this Condition AA1(a).

Condition AA3 - Basis of charges

AA3.1 Unless the Director directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of the Director, that each and every charge offered, payable or proposed for Network Access covered by Condition AA1(a) is reasonably derived from the costs of provision based on a forward looking long-run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed.

AA3.2 For the avoidance of any doubt, where the charge offered, payable or proposed for Network Access covered by Condition AA1(a) is for a service which is subject to a charge control under Condition AA4, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of the Director, that such a charge satisfies the requirements of paragraph AA3.1 above.

⁴³⁹ As set out in section 2 Condition AAAA10, imposed under the 2010 WFAEL Statement, was subsequently amended in the 2012 LLU/WLR Statement. This Annex therefore sets out the wording of Condition AAAA10 both before and after the amendment.

AA3.3 The Dominant Provider shall comply with any direction the Director may from time to time direct under this Condition AA3.

AA3.4 This Condition AA3 shall not apply to the markets set out in paragraphs 1(a)(ii) and 1(a)(v) of this Notification.

Condition AA10 - Requirement to provide Wholesale Line Rental etc.

AA10.1 The Dominant Provider shall provide Wholesale Analogue Line Rental as soon as it is reasonably practicable on reasonable terms to every Third Party who reasonably requests such Wholesale Analogue Line Rental. The Dominant Provider shall also provide such Wholesale Analogue Line Rental as the Director may from time to time direct.

AA10.2 Except in so far as the Director may otherwise consent in writing, the Dominant Provider shall provide:

- (a) Wholesale Business ISDN2 Line Rental; and
- (b) Wholesale ISDN30 Line Rental,

in accordance with the Wholesale ISDN Line Rental Functional Specification as soon as it is reasonably practicable on reasonable terms to every Third Party who reasonably requests Wholesale Business ISDN2 Line Rental and/or Wholesale ISDN30 Line Rental. The Dominant Provider shall also provide such Wholesale Business ISDN2 Line Rental and/or Wholesale ISDN30 Line Rental as the Director may from time to time direct.

AA10.3 The Dominant Provider shall ensure that charges for the provision of the respective services mentioned below shall be made by the Dominant Provider as follows:

- (a) subject always to the requirement of reasonableness, charges shall be based on the forward looking long-run incremental costs of providing Wholesale Analogue Line Rental and Wholesale Business ISDN2 Line Rental unless:
 - (i) the Dominant Provider and the Third Party have agreed another basis for the charges; or
 - (ii) any other basis for such charges be used as directed by the Director from time to time;
- (b) the Dominant Provider shall categorise its costs as falling within one of the following categories:
 - (i) Wholesale Line Rental Per Provider Set-up Costs;
 - (ii) Wholesale Line Rental Per Provider On-going Costs;
 - (iii) Wholesale Line Rental Per Customer Line Set-up Costs; or
 - (iv) Wholesale Line Rental System Set-up Costs,

and, where the Dominant Provider either fails to categorise its costs in such a manner or the Director considers that any individual item of cost cannot reasonably be categorised in the manner in which the Dominant Provider has made the categorisation, the cost in question shall fall within

- one of the categories in sub-paragraphs (i) to (iv) above or, as the case may be, in any new category of cost, as the Director may direct;
- (c) the Dominant Provider shall recover the costs for any new category of cost that the Director has directed under sub-paragraph (b) above in the manner in which the Director may direct;
 - (d) the Dominant Provider shall recover Wholesale Line Rental Per Provider Set-up Costs, and Wholesale Line Rental Per Provider On-going Costs and Wholesale Line Rental Per Customer Line Set-up Costs by means of direct charges to the Third Party, or as the Director may otherwise direct;
 - (e) the Dominant Provider shall recover Wholesale Line Rental System Set-up Costs by means of a separate surcharge on all Exchange Lines provided by the Dominant Provider, or as the Director may otherwise direct; and
 - (f) the Dominant Provider shall modify any of its charges for the provision of Wholesale Line Rental in the manner in which the Director may direct.

AA10.4 The Dominant Provider shall comply with any direction that the Director may make from time to time under this Condition AA10.

AA10.5 This Condition AA10 is without prejudice to the generality of the provisions in Conditions AA1(a) to AA7 above.

SMP Conditions – 2004 WLA Statement

Condition FA1 - Requirement to provide Network Access on reasonable request

FA1.1 Where a Third Party reasonably requests in writing Network Access, the Dominant Provider shall provide that Network Access. The Dominant Provider shall also provide such Network Access as Ofcom may from time to time direct.

FA1.2 The provision of Network Access in accordance with paragraph FA1.1 shall occur as soon as reasonably practicable and shall be provided on fair and reasonable terms, conditions and charges and on such terms, conditions and charges as Ofcom may from time to time direct.

FA1.3 The Dominant Provider shall comply with any direction Ofcom may make from time to time under this Condition.

Condition FA3 - Basis of charges

FA3.1 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by Condition FA1 and/or Condition FA9 is reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed.

FA3.2 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition.

Condition FA9 - Requirement to provide Local Loop Unbundling Services

FA9.1 Where a Third Party reasonably requests in writing Local Loop Unbundling Services, the Dominant Provider shall provide those Local Loop Unbundling Services.

FA9.2 The provision of Local Loop Unbundling Services in accordance with paragraph FA9.1 shall occur as soon as reasonably practicable and shall be provided on fair and reasonable terms, conditions and charges and on such terms, conditions and charges as Ofcom may direct from time to time.

FA9.3 The Dominant Provider shall comply with any direction Ofcom may make from time to time under this Condition.

SMP Conditions – 2009 Narrowband Statement

Condition AAA1(a) - Requirement to provide Network Access on reasonable request

AAA1(a).1 Where a Third Party reasonably requests in writing Network Access, the Dominant Provider shall provide that Network Access. The Dominant Provider shall also provide such Network Access as Ofcom may from time to time direct.

AAA1(a).2 The provision of Network Access in accordance with paragraph AAA1(a).1 above shall occur as soon as it is reasonably practicable and shall be provided on fair and reasonable terms, conditions and charges and on such terms, conditions and charges as Ofcom may from time to time direct.

AAA1(a).3 The Dominant Provider shall comply with any direction Ofcom may make from time to time under this Condition AAA1(a).

AAA1(a).4 The Direction made in the document 'BT's use of Cancel Other' published on 28 July 2005, shall continue to have force for the purposes of this Condition from the date that this Condition AAA1(a) enters force.

Condition AAA3 - Basis of charges

AAA3.1 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by Condition AAA1(a) is reasonably derived from the costs of provision based on a forward looking long-run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed.

AAA3.2 For the avoidance of any doubt, where the charge offered, payable or proposed for Network Access covered by Condition AAA1(a) is for a service which is subject to a charge control under Condition AAA4, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that such a charge satisfies the requirements of paragraph AAA3.1 above.

AAA3.3 The Dominant Provider shall comply with any direction Ofcom may make from time to time under this Condition AAA3.

Condition AAA10 - Requirement to provide Wholesale Line Rental etc.

AAA10.1 The Dominant Provider shall provide Wholesale Line Rental as soon as is reasonably practicable, or as directed by Ofcom, on reasonable terms to every Third Party who makes a reasonable request in relation to:

- (a) wholesale analogue exchange line services; and
- (b) wholesale ISDN2 exchange line services.

AAA10.2 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall ensure that charges of providing WLR services in paragraph AAA10.1 are based on the forward looking long-run incremental cost, except where the Dominant Provider and Third Party have agreed another basis for the charges.

AAA10.3 The Dominant Provider shall comply with any direction that Ofcom may make from time to time under this Condition AAA10.

AAA10.4 This Condition AAA10 is without prejudice to the generality of the provisions in Conditions AAA1(a) to AAA7 above.

SMP Conditions – 2010 WLA Statement

Condition FAA1 - Requirement to provide Network Access on reasonable request

FAA1.1 Where a Third Party reasonably requests in writing Network Access, the Dominant Provider shall provide that Network Access. The Dominant Provider shall also provide such Network Access as Ofcom may from time to time direct.

FAA1.2 The provision of Network Access in accordance with paragraph FAA1.1 above shall occur as soon as it is reasonably practicable and shall be provided on fair and reasonable terms, conditions and charges and on such terms, conditions and charges as Ofcom may from time to time direct.

FAA1.3 The Dominant Provider shall comply with any direction Ofcom may make from time to time under this Condition.

FAA1.4 The Direction dated 20 March 2008 concerning service level agreements, as published on the same day at Annex 2 of the statement entitled '*Service level guarantees: incentivising performance*', given by Ofcom under Condition FA1.2 shall continue to have force, until such time it is modified or withdrawn, as if it has been given under Condition FAA1.2 from the date that this Condition enters into force and that Direction shall be read accordingly.

Condition FAA4 - Basis of charges

FAA4.1 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by Condition FAA1 and/or Conditions FAA9, FAA10 and FAA12 is reasonably derived from the costs of provision based on a forward looking long run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed.

FAA4.2 For the avoidance of any doubt:

(a) this Condition FAA4 shall not apply to the requirement on the Dominant Provider to provide Virtual Unbundled Local Access under Condition FAA11; and

(b) except for the charge for MPF Rental, where the charge offered, payable or proposed for Network Access covered by Condition FAA1 and/or Condition FAA9 is for a service which is subject to a charge control under Condition FA3(A), the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that such a charge satisfies the requirements of paragraph FAA4.1 above.

Condition FAA9 - Requirement to provide Local Loop Unbundling Services (LLU)

FAA9.1 Where a Third Party reasonably requests in writing Local Loop Unbundling Services, the Dominant Provider shall provide those Services, which shall include, where also so requested by the Third Party, such Ancillary Services as may be reasonably necessary for the use of those Services. The Dominant Provider shall also provide such Ancillary Services or other Network Access as Ofcom may from time to time direct to ensure the provision of Local Loop Unbundling Services.

FAA9.2 The provision of Local Loop Unbundling Services, together with any Ancillary Services, in accordance with paragraph FAA9.1 shall occur as soon as reasonably practicable and shall be provided on fair and reasonable terms, conditions and charges and on such terms, conditions and charges as Ofcom may direct from time to time.

FAA9.3 The Dominant Provider shall comply with any direction Ofcom may make from time to time under this Condition.

FAA9.4 In this Condition:

(a) **“Ancillary Services”** mean an Associated Facility or services associated with an Electronic Communications Network and/or an Electronic Communications Service which enable and/or support the provision of services via that Network and/or Service or have the potential to do so, which include at a minimum (but without limitation) the following:

(i) power;

(ii) Co-Location;

(iii) Co-Mingling;

(iv) Site Access;

(v) Internal Tie Circuits;

(vi) External Tie Circuits.

(b) **“Co-Location”** means the provision of space permitting a Third Party to occupy part of an MDF Site reasonably sufficient to permit the use of Local Loop Unbundling Services, and in particular to permit the connection of the Dominant Provider's Electronic Communications Network with the Electronic Communications Network of a Third Party at that location;

(c) "Co-Mingling" means the provision of Co-Location having the following characteristics:

(i) the Third Party's Electronic Communications Network is situated in an area of the MDF Site which:

- (A) is a single undivided space;
- (B) after proper performance by the Dominant Provider of its obligation to provide Local Loop Unbundling Services pursuant to Condition FAA10.1, would permit the normal operation of the Third Party's Electronic Communications Network (or would permit if the Dominant Provider removed any object or substance whether toxic or not, which might reasonably prevent or hinder the occupation of the MDF Site for such use); and
- (C) if so requested by the Third Party, is not unreasonably distant from the Dominant Provider's Electronic Communications Network within the MDF site;

(ii) no permanent physical partition is erected in the space between the Third Party's Electronic Communications Network and the Dominant Provider's Electronic Communications Network; and

(iii) the Third Party's Electronic Communications Network is neither owned nor run by the Dominant Provider or by any person acting on the Dominant Provider's behalf;

(d) "External Tie Circuit" means a link that connects Local Loop Unbundling Services to the Electronic Communications Network of a Third Party at a location outside the MDF Site;

(e) "Internal Tie Circuit" means a link, the whole of which is contained within an MDF Site, that connects Local Loop Unbundling Services to the Electronic Communications Network of a Third Party;

(f) "Local Loop Unbundling Services" mean Network Access to Metallic Path Facilities or Shared Access;

(g) "MDF Site" means the site of an operational building of the Dominant Provider that houses a main distribution frame;

(h) "Metallic Path Facilities" means a circuit comprising a pair of twisted metal wires employing electric, magnetic, electro-magnetic, electro-chemical or electro-mechanical energy to convey Signals when connected to an Electronic Communications Network;

(i) "Shared Access" means the non-voice band frequency of Metallic Path Facilities;

(j) "Site Access" means access (including the right of entry) to the Dominant Provider's MDF Sites in order to install and operate an Electronic Communications Network to provide Electronic Communications Services over Local Loop Unbundling Services; and

(k) references to the expression Electronic Communications Network for the purposes of the expressions Co-Location, Co-Mingling and Site Access in this Condition shall be limited to those matters set out at section 32(1)(b)(i)-(iii) of the Act.

Condition FAA10 - Requirement to provide Sub-Loop Unbundling Services (SLU)

FAA10.1 Where a Third Party reasonably requests in writing Sub-Loop Unbundling Services, the Dominant Provider shall provide those Services, which shall include, where also so requested by the Third Party, such Ancillary Services as may be reasonably necessary for the use of those Services. The Dominant Provider shall also provide such Ancillary Services or other Network Access as Ofcom may from time to time direct to ensure the provision of Sub-Loop Unbundling Services.

FAA10.2 The provision of Sub-Loop Unbundling Services, together with any Ancillary Services, in accordance with paragraph FAA10.1 shall occur as soon as reasonably practicable and shall be provided on fair and reasonable terms, conditions and charges and on such terms, conditions and charges as Ofcom may direct from time to time.

FAA10.3 The Dominant Provider shall comply with any direction Ofcom may make from time to time under this Condition.

FAA10.4 In this Condition:

(a) “**Ancillary Services**” mean an Associated Facility or services associated with an Electronic Communications Network and/or an Electronic Communications Service which enable and/or support the provision of services via that Network and/or Service or have the potential to do so, which include at a minimum (but without limitation) Tie Circuit.

(b) “**Shared Access**” has the meaning given to it in Condition FAA9;

(c) “**Sub-Loop Unbundling Services**” means access to Metallic Path Facilities or Shared Access at an intermediate point prior to the main distribution frame;

(d) “**Tie Circuit**” means a link that connects Sub-Loop Unbundling Services to the Electronic Communications Network of a Third Party; and

(e) references to the expression Electronic Communications Network for the purposes of the expression Ancillary Services in this Condition shall be limited to those matters set out at section 32(1)(b)(i)-(iii) of the Act.

SMP conditions – 2010 WFAEL Statement

Condition AAAA1(a) - Requirement to provide Network Access on reasonable request

AAAA1(a).1 Where a Third Party reasonably requests in writing Network Access, the Dominant Provider shall provide that Network Access. The Dominant Provider shall also provide such Network Access as Ofcom may from time to time direct.

AAAA1(a).2 The provision of Network Access in accordance with paragraph AAAA1(a).1 above shall occur as soon as it is reasonably practicable and shall be provided on fair and

reasonable terms, conditions and charges and on such terms, conditions and charges as Ofcom may from time to time direct.

AAAA1(a).3 The Dominant Provider shall comply with any direction Ofcom may make from time to time under this Condition AAAA1(a).

AAAA1(a).4 The Direction made in the document 'BT's use of Cancel Other' published on 28 July 2005, shall continue to have force, until such time it is modified or withdrawn, for the purposes of this condition from the date that this Condition AAAA1(a) enters force.

Condition AAAA3 - Basis of charges

AAAA3.1 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that each and every charge offered, payable or proposed for Network Access covered by Condition AAAA1(a) is reasonably derived from the costs of provision based on a forward looking long-run incremental cost approach and allowing an appropriate mark up for the recovery of common costs including an appropriate return on capital employed.

AAAA3.2 For the avoidance of doubt, except for the charge for Analogue Core WLR Rental, where the charge offered, payable or proposed for Network Access covered by Condition AAAA1(a) is for a service which is subject to a charge control under Condition AAAA4(WLR) the Dominant Provider shall secure, and shall be able to demonstrate to the satisfaction of Ofcom, that such a charge satisfies the requirements of paragraph AAAA3.1 above.

AAAA3.3 The Dominant Provider shall comply with any direction Ofcom may from time to time direct under this Condition AAAA3.

AAAA3.4 The Direction regarding removal of cost orientation obligation for enhanced service level care made in the document 'Charge controls for Wholesale Line Rental – implementation and cost orientation' published on 23 February 2010, shall continue to have force, until such time it is modified or withdrawn, for the purposes of this condition from the date that this Condition AAAA3 enters force.

Condition AAAA10 - Requirement to provide Wholesale Line Rental etc. [prior to amendment under 2012 LLU/WLR Statement]

AAAA10.1 The Dominant Provider shall provide Wholesale Line Rental as soon as is reasonably practicable, or as directed by Ofcom, on reasonable terms to every Third Party who makes a reasonable request in relation to wholesale analogue exchange line services.

AAAA10.2 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall ensure that charges of providing WLR services in paragraph AAAA10.1 are based on the forward looking long-run incremental cost, except where the Dominant Provider and Third Party have agreed another basis for the charges.

AAAA10.3 The Dominant Provider shall comply with any direction that Ofcom may make from time to time under this Condition AAAA10.

AAAA10.4 This Condition AAAA10 is without prejudice to the generality of the provisions in Conditions AAAA1(a) to AAAA7 above.

AAAA10.5 The Direction regarding removal of cost orientation obligation for enhanced service level care made in the document 'Charge controls for Wholesale Line Rental – implementation and cost orientation' published on 23 February 2010, shall continue to have

force, until such time it is modified or withdrawn, for the purposes of this condition from the date that this Condition AAAA10 enters force.

Condition AAAA10 - Requirement to provide Wholesale Line Rental etc. [as amended amendment under 2012 LLU/WLR Statement]

AAAA10.1 The Dominant Provider shall provide Wholesale Line Rental, which shall include, where also requested by a Third Party, such Ancillary Services as may be reasonably necessary for the use of Wholesale Line Rental, as soon as is reasonably practicable, or as directed by Ofcom, on reasonable terms to every Third Party who makes a reasonable request in relation to wholesale analogue exchange line services.

AAAA10.2 Unless Ofcom directs otherwise from time to time, the Dominant Provider shall ensure that charges of providing WLR services in paragraph AAAA10.1, including for the avoidance of doubt such Ancillary Services as may be reasonably necessary for the use of Wholesale Line Rental, are based on the forward looking long-run incremental cost, except where the Dominant Provider and Third Party have agreed another basis for the charges.

AAAA10.3 The Dominant Provider shall comply with any direction that Ofcom may make from time to time under this Condition AAAA10.

AAAA10.4 This Condition AAAA10 is without prejudice to the generality of the provisions in Conditions AAAA1(a) to AAAA7 above.

AAAA10.5 The Direction regarding removal of cost orientation obligation for enhanced service level care made in the document 'Charge controls for Wholesale Line Rental – implementation and cost orientation' published on 23 February 2010, shall continue to have force, until such time it is modified or withdrawn, for the purposes of this condition from the date that this Condition AAAA10 enters force.

AAAA10.6 In this Condition: “**Ancillary Services**” mean an Associated Facility or services associated with an Electronic Communications Network and/or an Electronic Communications Service which enable and/or support the provision of services via that Network and/or Service or have the potential to do so.