

Non-domestic rates and the price for regulated Dark Fibre

TalkTalk response

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NON-CONFIDENTIAL VERSION

1 Summary

- 1.1 TalkTalk welcomes the majority of Ofcom's proposals for reducing the dark fibre price to reflect the higher non-domestic rates costs that other operators pay.
- 1.2 The adjustment will on average reduce the dark fibre price by about £300 and largely remove the competitive distortion that would have frustrated Ofcom's aim of other operators using dark fibre instead of using BT 1G and 10G Ethernet circuits. Competition through increased use of dark fibre is key to driving lower costs and innovation.
- 1.3 Ofcom's approach means that the uptake and benefits of dark fibre will be similar to the outcome had the government changed the rates rules so that BT paid non domestic rates on dark fibre circuits it provides to other operators.
- 1.4 There are a number of areas where Ofcom's approach could be improved to further reduce distortions (and so enhance the effectiveness of competition) In particular:
 - Ofcom should not assume (unrealistically) that the main links are 'dead straight' i.e. that the route distance equals the radial distance. We have provided evidence of a suitable assumption Ofcom should use
 - Ofcom should assume a 'rate on the pound' that is for the whole of the UK and for 2018/19 when dark fibre will be used – Ofcom uses a rate for England only in 2017/18
- 1.5 Ofcom has also made an upwards adjustment in the leased line charge control to cover an alleged threat to BT's overall cost recovery. This is not necessary since there is no such threat. BT will materially over-recover its costs due to future ISDN revenues being £100m+ more than costs. If an adjustment is made to the leased line charge control then it should be reduced to reflect that realistically dark fibre volumes will be lower than Ofcom estimates and also that some operators (those using the R&E method) will not pay the lower dark fibre prices. It also appears that Ofcom has made a mathematical error in calculating the adjustment.
- 1.6 In section 2 we discuss the overall approach and then in section 3 we comment on the particular assumptions where we think Ofcom should amend its approach.

2 Ofcom's overall approach

- 2.1 In Ofcom's original BCMR decision (in April 2016) the dark fibre access ("**DFA**") price was based on the 1G EAD price less the incremental/avoided costs of the active layer and less BT's attributed non-domestic rates ("**NDR**") cost (referred to as the 'Second Component'). Given that other operators ("**OCPs**") pay materially higher NDR costs per circuit than BT this approach would have created a significant distortion that meant that OCPs were unable use DFA to compete to provide the majority of 1G EAD circuits (which was central to Ofcom's objectives).

- 2.2 TalkTalk appealed this aspect of the decision and the CAT/CMA agreed that Ofcom erred. The outcome of the appeal required Ofcom to amend the DFA price to reflect its regulatory objectives¹ - in essence to reduce the distortion by using a measure of OCP's NDR costs to derive the Second Component (rather than BT's NDR cost attribution).
- 2.3 Removing the distortion is not straightforward since OCPs' NDR costs vary depending on:
- Whether their NDR costs are derived using the receipts and expenditure ("R&E") method or the direct rental comparison ("DRC") method; and,
 - In the case that the DRC method² is used:
 - the route length of the DFA circuit
 - whether the DFA circuit is considered contiguous with an existing hereditament of fibres that the OCP has lit (and if so how large that hereditament is)
- 2.4 Ofcom's approach takes account of these differences in a sensible and proportionate way:
- It only reduces the DFA price where the particular OCP's NDR costs are based on the DRC method. For OCPs whose NDR costs are based on the R&E method the DFA price will not be adjusted downwards³
 - It allows for a higher adjustment in the DFA price where the circuit is longer. Ofcom does this by basing some of the adjustment on the main link length rather than just on a per circuit basis
- 2.5 We support Ofcom's overall approach. Ofcom's approach means that the difference in NDR paid by BT and OCPs will be largely neutralised thereby removing most distortion (though as we describe below distortions can be further reduced).
- 2.6 We understand from BT that having two sets of DFA prices (one for OCPs on the R&E method and one for OCPs on the DRC method) creates some system complexity. However, the impact is surmountable (in essence the systems will have to reflect more product variants). If the system developments cannot be ready by launch in October 2017 then based on our experience of systems we believe it is possible to implement a tactical / manual workaround until the full capability is in place.

¹ See CMA Determination §6.21

² There is likely to be some variation in the NDR cost for operators whose NDR is based on the R&E method – however the differences are likely to be relatively small

³ See Consultation §2.11

3 Assumptions used to set adjustment

3.1 In setting its approach Ofcom has necessarily needed to make a number of assumptions such as for line length, contiguity and NDR multiplier. Ofcom has also made an adjustment to the leased line charge control which similarly relies on a number of assumptions. We agree with many of the assumptions Ofcom has used (or we have no evidence to suggest Ofcom is incorrect). However, in a number of cases we think that Ofcom's assumptions could be easily improved.

3.1 Measure of circuit lengths

3.2 We consider that the *mean* not *median* circuit lengths should be used to derive the Second Component. Ofcom's use of the median ignores the skewed distribution of longer lines that incur higher NDR costs meaning that the mean is likely to be materially higher than the median.

3.2 Ratio of route to radial distance

3.3 The radial distance is the 'as the crow flies' length of a circuit i.e. the straight line distance between the two end points of the circuit. The route distance is the length of the path the circuit actually takes e.g. down roads and paths in different directions. The route distance is obviously greater than the radial distance.

3.4 The relationship between the route and radial distance is important since, for instance, the circuit length data Ofcom have from BT is radial distances whereas the NDR RV under the DRC method is based on the route distance. The key assumption is therefore the ratio of route to radial distance.

3.5 Ofcom have assumed that:

- For the access segment of circuits (i.e. not between exchanges) the ratio is 1.4
- For the main link segment of circuits (i.e. between exchanges) the ratio is 1.0 (i.e. the circuit is dead straight)

3.6 We agree with the assumption of a ratio of 1.4 for access circuits. We understand that a ratio of the square root of 2 (i.e. 1.414) is generally used in network planning.

3.7 However, the assumption of a ratio of 1.0 for main link segments is obviously wrong since circuits between exchanges will not be dead straight since they will need to follow roads and paths⁴. Ofcom have suggested that longer segments (main link segments are typically 5 to 10km radial distance) may have a lower ratio than shorter

⁴ Ofcom (at §2.40) suggest there is a benefit of using 1.0 since "*using the radial distance maintains alignment with the charging structure*". There is no such benefit since it is simple to change the adjustment per main link km by multiplying it by the ratio

segments (access segments are around 1.5 to 2km radial distance)⁵. This might be the case to some degree. However using 1.0 is obviously not a sensible estimate since no circuit route is dead straight.

- 3.8 We have analysed the route to radial ratios for a number of exchanges.
- We have assessed radial and route distances for the 15 main link routes between 6 exchanges in South East London⁶
 - The radial distances were derived using grid references
 - Route distances were derived using two methods⁷:
 - Walking distance using Google maps
 - Driving distance using Google maps⁸
 - The route to radial ratio for walking was 1.17 and for driving 1.32 (this is to be expected since walking will have more route options than driving)
- 3.9 The ‘true’ route distance is likely to lie between the two:
- it is unlikely that BT could or would trench down every footpath on a walking route , but
 - BT would normally be able to trench down roads that can be driven on, and
 - BT may deviate off the shortest route for planning reasons e.g. preference to use existing trench, inability to dig in certain areas
- 3.10 Thus an appropriate ratio therefore probably lies in the range 1.2 to 1.3.

3.3 Contiguity assumption

- 3.11 Whether the DFA circuit is considered contiguous with an existing hereditament of fibres that the OCP has lit (and if so how large that hereditament is) is an important assumption in deriving the rateable value (“RV”). For instance:
- If a 3km circuit is not considered contiguous with any other circuits then the RV is £2,000⁹
 - If the 3km circuit is contiguous with an existing hereditament of 100km then the RV is £990

⁵ Route:radial ratios for access circuits are also likely to be higher since BT use a tree and branch network – in effect they share routes close to the exchange meaning that the route from the exchange to each end point may be longer than the shortest possible route

⁶ Exchange were – Esher, code: LSESH, KT10 9BX; Thames Ditton, LSTHDT, KT7 0EX; Surbiton, LSSUR, KT6 6AB; Worcester Park, LSWOR, KT4 8AB; Ewell, LSEWE, KT17 2AZ; Ashted, LSASH, KT21 2AF

⁷ Source: ELH analysis

⁸ For driving distance the lower of A to B and B to A was used. Visual checks of each route did not show any devious/long routing on one-way systems

⁹ This is for a single fibre which is the case for the vast majority of DFA circuits. All the figures contained in this document refer to single fibre DFA

- If the 3km circuit is contiguous with an existing hereditament of 1,000km then the RV is £600

3.12 Ofcom has assumed the last case where all DFA circuits will be considered contiguous with a hereditament of over 1,000km¹⁰ which results in the lowest RV (and so lowest NDR) possible. Ofcom have indicated that it used this assumption because there are several networks where this will be true. We suggest two things:

- First Ofcom should ensure that it considers only the likely situation in 2018/19, not the longer term situation (§2.16 seems to imply Ofcom have looked at the long term situation)
- Second, just because operator has a network(s) of over 1,000km does not mean that all DFA circuits will be considered contiguous with a hereditament of 1,000km. It may be that some DFA circuits are added by an operator that are not considered contiguous with their existing network since they are in different parts of the UK to the existing network. Thus it may be better to assume that some (minority of) circuits are not contiguous

3.4 Rate in the pound

3.13 The NDR cost is derived as the RV multiplied by the rate in the pound or ‘multiplier’. Ofcom has assumed the multiplier to be the English multiplier (47.9p) in 2017/18. Ofcom’s assumption should be improved in two ways:

- First, Ofcom has ignored the higher rates in Wales (49.9p in 2017/18), Scotland (49.2p) and Northern Ireland (58.7p), all of which should be taken into account in deriving the NDR cost
- Second, Ofcom has ignored the higher multiplier that will prevail in the future and particularly in 2018/19 when most DFA will be used (in this charge control period)

3.14 Ofcom already has the information available to make these corrections. In the WLA Review (March 2017) Ofcom developed forecasts for the multipliers for each country. Ofcom’s forecasts are shown in the table below. Ofcom also has RVs for each country¹¹ allowing it to derive an average multiplier.

¹⁰ resulting in an RV of £200 per km

¹¹ See WLA Market Review Annexes Fig A17.3

Table A17.5: Forecasts of standard non-domestic poundage rates (nominal)

	England	Wales	Scotland	Northern Ireland
2017/18	47.9p	49.9p	49.2p	58.7p
2018/19	49.5p	51.7p	50.8p	60.8p
2019/20	51.0p	53.3p	52.3p	62.7p
2020/21	52.0p	54.4p	53.3p	64.0p
2021/22	53.0p	55.5p	54.3p	65.2p

Source: Ofcom analysis based on sources cited above.

- 3.15 Given that most dark fibre will be used in 2018/19 the multiplier figures for that year should be used. The average multiplier (using weightings from WLA Review) for 2018/19 is 49.8p.

3.5 Leased line charge control adjustment

- 3.16 Ofcom has adjusted the leased line charge control prices upwards (by a total of about £5m) to address the risk to BT's ability to recover its efficiently incurred costs as a result of the change in the DFA price. We have a number of comments about Ofcom's approach.
- 3.17 First, and most importantly, there is no need for any upward adjustment to ensure overall cost recovery. Ofcom is planning to allow BT to significantly over-recover its costs in future – for instance by allowing ISDN prices to be more than £100m above FAC costs. In 2015/16 ISDN revenue was about £130m above FAC costs. Ofcom, in the Narrowband Market Review, has proposed that prices are not increased in nominal terms which will mean that the high level of excess revenue/profit will continue or possibly increase.
- 3.18 Thus even if BT's revenue from Ethernet/DFA reduced as a result of the DFA price adjustment by £5m BT will still amply over-recover overall. The upward adjustment is therefore unnecessary and reduces welfare. Allowing BT any adjustment is gifting BT money for no reason.
- 3.19 The adjustment Ofcom has made implicitly assumes that BT's incremental reduction in NDR costs as a result of a circuit migrating from EAD to DFA is the attribution of NDR costs to EAD. The incremental reduction in costs is probably higher than the attribution – for instance, when lines migrated from WLR to MPF the actual reduction in NDR costs was greater than the attribution of NDR costs to WLR. If, as is likely, the incremental cost were higher than the attribution then the upward adjustment in leased line prices would not need to be so high since BT would (when it provides DFA rather than EAD) avoid more costs than the cost attribution.

- 3.20 On DFA volumes, Ofcom assumes that 95% of potential new EAD 1G installs in 2018/19 will be on DFA¹². This is unrealistically high for a number of reasons:
- There will be some operators who buy EAD who will not actively use DFA
 - Even those operators using DFA will not use it for all of their circuits in the period up to March 2019
 - There will be a material number of circuits where (even after the proposed adjustments to the DFA price) it will not be viable for OCPs to use DFA due to the higher NDR they will pay on those circuits¹³
 - Openreach have capped the number of DFA circuits that can be migrated from EAD to 100 per operator in the first 12 months and 200 per operator in the following 6 months
 - Given the first order of the DFA product will be placed in October 2017 and the DFA product will still be evolving in early 2018, operators using DFA will still be in ‘build up’ phase during 2018/19 as the product and processes bed in. [X X - REDACTED - X X]
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- 3.21 Ofcom’s assumptions for the adjustment appear to assume that all external / non-BT DFA users pay the lower DFA price¹⁴. This is incorrect since (at least) Virgin Media and KCOM will not pay the lower DFA price since they use the R&E method. Thus their volume should be excluded. Ofcom must have data available to estimate the share of DFA circuits that are likely to be used by Virgin Media and KCOM.
- 3.22 It also appears that there may be errors in deriving the adjustment. Ofcom state that the reduction in DFA revenue will be around £5m¹⁵. Our calculations suggest that the reduction will be much less than this for two reasons.
- 3.23 First, using Ofcom’s volume figures, our estimate for revenue reduction in 2018/19 is £3.6m¹⁶ as shown in table below.

¹² Ofcom says (see §2.44) it has used the same volumes as was in BCMR 2016 Statement which are shown in Table A32.1

¹³ for instance where circuit route length is much higher than the average Ofcom has assumed or where the main link has a high route to radial ratio

¹⁴ see footnote 23 which says that “the external lines may overstate the number of dark fibre lines ...”

¹⁵ §2.48

¹⁶ Circuit volumes are taken from the LLCC model

Main links are possible on EAD-standard/other, WES, BES, EBD and OSA but not EAD-LA. The main link length per circuit is based on the RFS. IN RFS 2016 the total main link km was 509,935 (across EAD-standard/other, WES, BES, EBD. There were 95,726 EAD-standard/other, WES, BES and EBD implying a main link length of 5.3km per circuit that can have a main link (not all of these circuits will)

	Circuits no ML	Circuits ML possible	TOTAL
circuits	2,246	4,654	6,900
price reduction access segment	182	182	
main link length per circuit where ML possible		5.3	
price reduction ML segment per radial km		95.8	
price reduction ML segment		510.3	
Total price reduction	182	692	
Reduction in revenue (£m)	0.4	3.2	3.6

3.24 The revenue reduction in 2017/18 will be very small since there will be very few circuits and they will only be in place for a few months each.

3.25 Second, the rental volumes seem inconsistent with the connection volumes (this is addition o the point above that the volumes are generally too high). The rental volumes should represent the number of circuits on average during the year (since this is how the rental revenue is derived). For instance for DFA circuits that substitute EAD-LA 1G the figures are:

	2017/18	2018/19
connections	417	2,040
rentals	278	1,761

3.26 If there were 417 connections in 2017/18 most of these will be in place for less than three months implying an average circuits of less than 100 (compared to 278). Similarly in 2018/19 the average will be much less that the figures imply – even if the circuits were connected evenly through the year the average would be 1,437 (= 417 + 2,040 / 2) and not 1,761. In practice more circuits will be connected towards the back end of 2018/19 implying an average of much less than 1,437.