



# Wholesale Voice Market Review

## 2021-2026

### Vodafone response

October 2020

Non-Confidential Version



## **Contents**

<b>EXECUTIVE SUMMARY</b>	<b>3</b>
<b>1. CONTRACTUAL REFORM TO SUPPORT A COMPETITIVE MARKET</b>	<b>6</b>
<b>2. SCOPE OF REGULATION</b>	<b>13</b>
<b>3. MOBILE AND INTERNATIONAL TERMINATION</b>	<b>15</b>
<b>4. ANSWERS TO OFCOM QUESTIONS</b>	<b>27</b>
<b>ANNEX A – EVIDENCE OF SURCHARGES</b>	<b>34</b>



## Executive summary

1. Voice interconnection remains a key product in the communications industry. It underpins an array of critical services used every day by consumers and businesses. Effective interconnectivity between different Communication Providers (CPs) is essential for the functioning of the communications market. It is necessary for seamless connectivity between end users and provides the foundations for a competitive retail market place. It enables consumers to choose their preferred CP, safe in the knowledge that end-to-end connectivity to all is assured.
2. The transition to IP creates a fresh opportunity to fix the current regulatory and operating model, making it more competitive. Today, the regime largely still reflects the industry's point of origin of there being a dominant provider. A contracting framework was forged at a time of early market liberalisation, when it was necessary for regulation to directly remedy incumbency and there was less of a need to ensure the contracts between BT and its interconnect partners were fair and reciprocal, as regulation prevented BT from abusing its position. Today while some continuing regulation remains necessary, the vast majority of those early regulatory remedies have fallen away, yet the underlying interconnection contracts have not been reformed, as this depends on agreement from both sides of the table. There is an urgent need to rebalance interconnection contracts in order to project a fair and open market structure.

## Contracting for Fairness

3. The reality is that a combination of the past deregulation of the wholesale interconnect market and a failure to reflect these changes within contracts has handed too much control to BT, allowing them to dictate terms across significant areas of the market. There is compelling evidence to suggest BT's slow adoption of IP and failure to offer IP termination on a regulated basis across all its UK geographic ranges has held the UK industry back in its journey to modern IP technology, requiring many CPs to retain TDM infrastructure, including DLE connections, in order to secure regulated call termination rates
4. If Ofcom are to make the transition to IP a success, **then an industry standard IP interconnection contract is the most important foundation to any new regime.** It will help CPs set standard terms, essential in a network industry. Leaving them free to set their own pricing within a competitive market.
5. Ofcom need to provide a strong oversight role in these new industry contract discussions. Any market review changes will not flow through to the market, unless there is contractual reform. A new contract is required, one that is fair and reciprocal. Ofcom should issue guidance to support this process, including setting a clear timetable for reform.
6. It is clear that IP is now the standard for connectivity and the time has now come to formalise this. This will ensure that there is an immutable roadmap to geographic call termination at the regulated rate being available for all number ranges on an IP basis. The status quo has provided scope for BT to game the system, seeking to make it harder for CPs to secure regulated Fixed Call termination rates universally, with least cost routing options for number blocks often obscured through a mixture of IP and TDM arrangements, further hindered by a lack of transparency in the pricing approaches adopted. Hosted arrangements add additional



complications, leaving it far from clear how to gain access to the regulated rate, resulting in unnecessary commercial conveyance and even transit charges being applied.

7. To maintain transparency BT needs to provide at least 12 months' notice of any number blocks migrating. These should be at the allocation level (i.e. 1k/10k) to minimise the burden on CPs. The list should be visible at all times (either on a portal or website accessible to CPs) and kept up to date. Six months out from the scheduled date of migration, BT should be required to commit commercially to the move (ie. If the physical move does not occur for any reason, the commercials still assume migration has occurred). The period of parallel running for the commercials needs to be at least 90 days, to allow for an orderly transition and give sufficient time for CPs to manage the migration work on their own networks.

### **Who to Regulate**

8. Ofcom needs to give deeper consideration of who is a Regulated Provider under the General Authorisation regime. This used to be reasonably clear when using legacy technology; however, as we move to IP, there is now significant room for interpretation. Ofcom cannot effectively regulate if it cannot readily state which specific entities are subject to its regulation. To address this, Ofcom needs to hold a register of who it considers to be a PECN, with contact details available to all.

### **An Evidence based and pragmatic approach to setting MTRs**

9. We welcome Ofcom's pragmatic decision to update the 2018 MTR model and use this as the basis to calculate MTR rates in the UK. This provides a stable and evidence based trajectory for setting UK MTR, taking specific account of the circumstances of the UK market. Looking at the average of rates across the review period, the UK approach and the Euro-rates model appear reasonably well aligned, with the UK approach providing greater level of certainty and stability. We have a number of reservations about the methodology used in euro modelling approach and its suitability to the UK context. We therefore believe Ofcom's proposal to roll forward the UK model is a well-founded one.

### **Overseas Termination Rates – flexibility to respond commercial to benefit UK consumers**

10. We welcome Ofcom's decision to allow reciprocal surcharging for international rate setting. Such an approach allows UK operators to respond to higher termination rates, creating the right commercial environment to ensure sensible and efficient rates are set by all overseas networks, regardless of the robustness of their home regulatory environment. Restricting the ability of UK networks to respond to higher rates from elsewhere is harmful to UK consumers as it facilitates a wealth transfer from UK consumers to overseas networks, with no upside benefits to UK customers. We firmly believe all UK networks will seek to set sensible termination rates, however creating an environment where the UK cannot respond to higher rates encourages poor conduct by overseas networks, who lack regulatory oversight in their host country. It is therefore imperative that Ofcom provide all UK networks with the means to respond where such circumstances arise, creating the right incentive to reach fair and balanced termination rates.



### **Structure of this response**

11. This response is split into four sections. The first covers the fixed voice market and the need for contractual reform. The second looks at the scope of regulation in an IP environment. The third looks at Ofcom's approach to MTRs and overseas termination. The final section seeks to answer the specific questions Ofcom have posed.



## 1. Contractual reform to support a competitive market

- 1.1 UK interconnection remains a substantial market, with nearly £6Bn of traffic revenues flowing annually. The market has largely been deregulated, with BT's regulated FTR revenues accounting for a small proportion of this. On the surface, it would appear that this could be regarded as a competitive market, however the reality is very different. Due to a number of reasons related to the physical architecture of the networks and contractual arrangement that support the various traffic flows, BT has been and is still able to exercise a controlling influence on the market that is detrimental to competition.
- 1.2 Key to this is BT's retention of a number of important commercial and technical levers that allow it to act as the *de facto* system controller across many wholesale voice markets. At its core is the Standard Interconnect Agreement (SIA), together with its supporting document architecture, including the Carrier Price List (CPL - where BT is able to push through unilateral price changes without consent to specific CPs, each now having their own version of the CPL), the Element Based Charging matrix (EBC - indicating BT's preferred point of handover for BT or third party number blocks, from which charges are then derived) and through its authorship of various product and technical manuals that document a number of interconnection services, processes and standards<sup>1</sup>.
- 1.3 Alongside this legacy TDM contractual structure sits BT's 'commercial' IPX Agreement, with BT able to game the two agreements, using these two agreements and the mix of commercial and regulated traffic streams, and the technology limitation of some carriers (who moved to IP a number of years ago) to secure volume commitments to attract volumes towards BT interconnects, that all things being equal would be least cost routed more efficiently elsewhere. This mix of TDM and IP ranges for regulated termination and the need to hit a volume target, means the commercial pain of missing the volume commitment is far greater commercial threat than paying more on a call-by-call basis for traffic that ideally should be handed over to another carrier. BT's ability to make CPs circumvent conventional least cost routing rules underlines the extent of their market power.
- 1.4 The SIA, which all CPs interconnected with BT must sign to secure regulated termination rates, fails to permit reciprocal contract terms, allowing BT to dictate outcomes and block any realistic chance of contractual reform. Successive market reviews have rolled back regulation on BT, but instead of deregulation being a springboard to ensure a more balanced market place, with competition constraining BT's behaviour, the opposite has occurred. As regulation has evaporated, BT's contractual and practical grip on the functioning of the market is tighter than ever.
- 1.5 BT is understandably unwilling to voluntarily relinquish this contractual power and regulatory intervention is needed to achieve this. Resolving these concerns through the Ofcom dispute process is neither efficient or the best place to consider these issues, lacking both the time and policy context to achieve the best

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<sup>1</sup> For example - billing manuals



outcome that will deliver an equitable, sustainable relationship between CPs, equipping them for an future full IP interconnect environment.

1.6 Ofcom's involvement in this contract evolution process is necessary and we believe CPs, BT, Ofcom and the OTA need to come together and write a new contract that resets interconnection relationship on equitable terms. There are number examples of BT's conduct in the market that demonstrate their ability to act unilaterally, with no fear of any adverse commercial consequences:

- **Ability to impose pricing on CPs, while rejecting CP pricing proposals:** BT can not only change its interconnect rate card without reference to other CPs or their agreement, under the contract it has the power to reject the rates proposed by an interconnected CP for access to a service supplied by that provider. To our knowledge no other interconnect agreement in existence in the UK places so much control into the hands of one provider. No freely-negotiated commercial agreement would ever allow one of the parties to unilaterally set its own prices and reject those of the other.
- **Refusal to accept the existence of rival inland Transit from another CPs:** BT has declined to pay transit fees raised by others for conveying traffic handed over by BT to third party transit networks (for example in circumstances where they themselves don't interconnect with the end CP, or they have chosen to route a call via a third party network). BT's refusal to pay is enforced by their contractual right to reject rates. This has discouraged others from playing an active role in the transit market and led to distortion of the market by arrangements having to be portrayed as "hosting" when in reality the relationship is one of transit.
- **Erroneous classification of Transit:** For its own services, BT classifies traffic as transit in circumstances where it does not appear to 'transit' to a third party network. This occurs for hosted traffic on the BT network. From a physical perspective, the traffic is terminated on the BT network, yet transit charges are levied. In many cases, the range holder does not own their own network, outsourcing all their network functions to BT, with the numbers hosted on BT's IPX platform. Despite this, BT charges transit fees. In these circumstances it is impossible for another CP to directly interconnect with the terminating provider, making a transit fee unavoidable for all CPs other than BT. Even in cases where the terminating CP may have their own nominated point of interconnect, the only way for originators such as Vodafone to ascertain the status of the number ranges would be to contact range owners individually. This is impractical, as often no contact information is held in the public domain (we note that even Ofcom does not hold this information) and BT declines to share the contact information they hold, deliberately making it as hard as possible for CPs to route efficiently (see below).
- **Non-Geo Transit:** As the Terminating network pays transit fees for this call type, BT seeks to leverage its position as default transit network. It deliberately anonymises the details of the originating network provider (on the transit charge reference file provided to the terminating provider –



assigning a code instead of name), making it impossible for the terminating provider to encourage direct routing by the originating CP. This practice is consistent with the refusal to pay Vodafone the same charge for transit calls to BT own or hosted numbers originating on third party networks.

- **BT imposes their own rules to make transit / hosting problematic for other CPs:** BT requires that Vodafone provide a letter of authority from the range owner in support of Data Management Amendments (DMA) requests to open up new number ranges in circumstances where Vodafone acts as the transit provider or host of those numbers. To send traffic BT requires this letter of authority to confirm Vodafone as the terminating network (refusing to acknowledge the concept of transit – declining to pay all fees). In contrast, BT does not provide letters of authority from their own hosted range holders, which allows them to treat traffic as transit. BT also declines to provide clear visibility of hosted numbers on their CPL.
- **Erroneous transit and a failure to reflect reciprocal rates:** BT's conduct over 03 charging highlights their ability to make changes to their charging structure that don't reflect the physical routing of the call and set their own commercial terms that others cannot reciprocate. In 2016, BT took the decision to charge the higher (DLE based rate) for 03 calls that terminated on its network (previously the default rate was set to a lower Single Tandem). It took almost a year before BT consented to other operators reciprocating BT's charging structure and allowed charging at the higher DLE based rates. For 03 numbers hosted by BT (which use a range allocated to another CP), BT then sought to introduce transit charges, despite the fact that the numbers are not terminated on a third party network, but are terminated by BT itself. This has allowed BT to charge an additional Transit charge (at Single Transit or Double Transit charges as per EBC). Meanwhile BT is continuing to charge the higher DLE termination charge for these hosted calls, as if they were BT terminated (if the calls were genuine transit, Single Tandem would be the cheapest possible option). BT appears to be having its cake and eating it. Either the numbers are hosted and they should be charged at the higher (DLE) rates with no TWIX, or they are genuine transit and the lower (ST) rates plus TWIX should apply.
- **Lack of consistency over the treatment of the Element Charging Matrix:** BT has made changes to the EBC matrix without consultation. They have sought to classify traffic moving between their TDM network to IPX as double tandem. This is internal routing within the BT network, which BT itself determines and of which an originating or terminating CP has no control of, yet by re-classifying the EBC matrix, BT is gaining commercially at the expense of other providers. As BT has full control over its EBC matrix, there is no means for CPs to challenge these changes. BT also failed to open access to the 'IP interconnect node' under the SIA, even though the IPX node has long been treated as a switching stage for the delivery of NGCS traffic to CPs, and charged accordingly. This is BT effectively





denying the ability of CPs to optimise their routing unless they sign to the IPX commercial framework, which does not guarantee Fair & Reasonable terms.

- 1.7 For a number of years, many CPs have been keen to move to an all IP-environment. The move to IP would take considerable costs out of their business and provide the scope to provide additional functionality to end customers that are not possible in a traditional switched telephony environment. At a practical level, the removal of legacy equipment that is either out of support or nearing that point (with spare parts in short supply), would have significant operational benefits. However these CPs have all been stopped from making the full transition to IP due to the need to interconnect with BT at scale and the requirement to send a large volume of traffic to BT for termination at TDM, even if a large proportion of that traffic ultimately terminates elsewhere (due to the onward routing nature of number portability).

### **Migration to IP – minimizing the burden on CPs**

- 1.8 Ofcom should not underestimate the considerable cost that BT's lingering TDM choices impose on other CPs. Vodafone spend on Media Gateway capacity and on supporting infrastructure to convey traffic between TDM and IP estates during this transition phase amounts to around ~~8~~£. We also need to maintain an ability to retain our Least Cost Routing cost base (to secure FTR) on BT's TDM estate. BT decisions around IP adoption will likely have encouraged others to align, with CPs aware that moving to IP ahead of BT will result in them having to fund their own media gateway and extra transmission capability in order to move traffic across their network and present it using BT's preferred technology. BT routinely asks Vodafone to share plans to retire our TDM estate at local exchanges, but remains consistently unwilling to share details of their own plans. BT needs to provide CPs with a roadmap of their plan to retire their TDM estate, so allow CPs to effectively manage the transition.
- 1.9 With so much traffic on our own network now originated as native IP, we find ourselves in a prolonged state of limbo, unable to fast track to an all-IP environment. This means we need to buy IP from BT on an unregulated IPX agreement, or pay for the conversion ourselves. Given BT's IPX terms it is often a mixture of these approaches.
- 1.10 BT seeks to impose IPX volume terms that may necessitate the need to make sub-optimal routing choices, such as carrying traffic from or destined to other CPs, in order to hit the volume targets. This can have an adverse impact on the wider market, resulting in inefficient routing for UK networks as a whole. Regulation should provide a backstop on BT's migration to IP to provide market certainty. Only when there is one, harmonised standard will the commercial playing field be level.
- 1.11 From an implementation perspective, BT should be required to provide at least 12 months' notice of any number blocks migrating. These should be at the allocation level (1k/10k) to minimise the burden on CPs. The list should be visible at all times and kept up to date. Six months out from the scheduled date of migration, BT should be required to commit commercially to the move (ie. If the physical move does not occur for any reason, the commercials still assume it has occurred). The period of parallel



running for the commercials needs to be at least 90 days, to allow for an orderly transition and give sufficient time for CPs to manage the migration work on their own networks. All migration information should be held on a CP accessible website / portal and kept up to date at all time.

### **BT's grip on the market: the supply of Low volume essential services**

- 1.12 Regulation requires retail voice CPs to offer a range of service to end users, including access to emergency services. Given BT's legacy supplier status and unique ability to aggregate this traffic from other CPs, it is the only provider with the volume of traffic able to provide such a service (able to provide resilience, spreading volumes over a number of geographically diverse sites, with secure and robust connectivity to each), and, in the case of e-call, only BT is the designated PSAP.
- 1.13 Economically, no other provider could offer these services and there are similar concerns around Text Relay and the Payphone Access charge (covering free-to-caller traffic from the UK's payphone estate). BT has SMP in this space, yet Ofcom's market analysis fails to pick up the significance of these services to the workings of the overall market.
- 1.14 Often smaller providers do not have the resources to operate more sophisticated approaches to interconnect routing and can only justify connection to a single transit network at the wholesale level. BT's dominance in the provision of essential services such as 999 means they are the default choice, giving them market power that does not register in a traditional SMP assessment.
- 1.15 BT should not be denied a fair return for the services it provides, but safeguarding pricing caps are needed to prevent prices rising beyond reasonable levels. Ofcom should seek to do this formally (we believe a market assessment based on these services would satisfy the three criteria test) or seeking a voluntary +CPI price cap commitment from BT to remove the concern over future price rises. Additionally, BT's provision of such services should reflect that not all originators are connected to them, hence are signatories of the SIA – provision should be made, both contractually and technically, to allow consumption of such regulatory services without being a BT interconnect customer.



## Hosted Numbers

1.16 Clarity is needed over the approach taken for hosted numbers. While the regulation is clear that there is a network access requirement for Wholesale Call Termination that means that terminating providers must make available, on request, at least one POC where originators will only have to pay the regulated FTR. This has proved difficult to enforce, with many originating providers unclear of how to access the FTR for hosted services. While it is reasonable that providers have the commercial flexibility to combine FTRs with charges for unregulated services, such as transit and conveyance, should an originating provider wish to access the regulated FTR, there should be clear path to do so without requiring the purchase of unregulated services. Where rangeholders have chosen to use a hosting network provider, in accordance with the network access obligation they must ensure that the regulated rate is charged for termination at a relevant POC to that hosting network. We believe there must be a clear obligation on the hosting party to highlight the Wholesale Call Termination (WCT) regulated termination point to facilitate cost effective and efficient call routing, with contact details for the range holder made available. Hosting must not be used as a method to circumvent regulation and we welcome all steps by Ofcom to close this loophole and provide clarity.

## Clarifying Where FTR Applies

1.17 We note that for fixed call termination in particular, the consultation is silent on precisely where the regulated termination rate should apply, versus where termination is a commercial matter. The accepted wisdom is that providers should apply the regulated rate at the nearest handover point to the terminating customer that is available, but this leaves ambiguity that could provide an opportunity for the regulation to be gamed.

1.18 At one extreme, a position could be adopted that “distance is dead” and there is no cost differential in terminating calls once the correct terminating network is identified. At the other, a regulated provider could deliberately adopt a network architecture that made it practically impossible to connect to all of the specified handovers. The first position would provide no investment reward for those deploying large, extensively connected networks. The second would remove many calls from regulatory protection.

1.19 It isn't necessary to embed the answer to this question into regulation, but conversely it will create uncertainty if the issue is left to dispute resolution (if, indeed, Ofcom was prepared to consider such disputes). We therefore believe that it would be appropriate for Ofcom to provide regulatory guidance, if not as part of the concluding statement of this market review, the ideal scenario, then shortly afterwards.

1.20 The network cost model that Ofcom has adopted (rolled over from the previous charge control) will contain assumptions about asset utilisation – for example that a regulated call will involve a single call server interaction in the terminating network. As a starting point, it seems reasonable – so long as the terminating network has provided information about the correct call server/handover to target – that if



an originating/transit provider sends calls to that call server/handover point then they should benefit from the regulated termination rate, but otherwise it is a commercial matter. It also seems reasonable to postulate that even the largest network could not justify more than 10-15 handover points, given the call handling capability of modern equipment. However, these are just suggested starting points, and Ofcom should engage with the regulated providers in establishing guidance.

### **Wholesale Line Rental (WLR)**

- 1.21 In common with the need for price stability on Carrier Pre Selection (CPS), we believe this pricing stability should also extend to WLR. Although the future regulatory approach for WLR is being considered under the WFTMR, where WLR is used for voice, it is bought alongside CPS. In both cases a +CPI pricing cap to safeguard end users is proportionate until stop sell in 2023, allowing for an orderly migration away from this legacy product. Absent any meaningful pricing safeguards, there will be little incentive on BT to price WLR and CPS at a reasonable level.
- 1.22 BT should also be required to update its relevant technical specification documents to reflect WLR withdrawal. Serving a broadband connection is now the primary function of the majority of copper bearers in use. BT's Supplier Information Note (SIN) documentation remains focus on voice characteristics, yet with the advent of SOGEA and VoIP, where any voice traffic is carried on a data path, will need to reflect this, ensuring that copper bearers are fit for purpose and set out the required technical standard.



## 2. Scope of Regulation

2.1 Vodafone believes that Ofcom needs to give deeper consideration of who is a Regulated Provider under the General Authorisation regime. Ofcom cannot profess to be the sector regulator, if it cannot readily state which specific entities are subject to its regulation. There has always been some ambiguity under the General Authorisation regime that was introduced nearly twenty years ago, but the issue is being exacerbated by the advent of SIP technology and threatens to undermine Ofcom regulation during the review period.

2.2 The key question is who is a Regulated Provider – in most cases a Provider of Electronic Communications Network (PECN). In the C7/TDM era, this was fairly clear cut because to be within the scope of regulation you needed to have a C7 switch, to operate a C7 switch you needed a Signaling Point Code (SPC), and Ofcom administered the SPCs: there was a walled garden of regulation. In the SIP era, this is breaking down...no SPCs (or equivalent) are required, and enterprises typically have their own SIP servers, plus tech-savvy end-users can create SIP servers on a home PC: consequently the walls to the regulatory garden have crumbled. We would note that the distinction between NICC Standards ND1034 (SIP user interface) and ND10135 (SIP network-network interface) is not particularly driven by the technical characteristics of the communicating SIP node, but instead by which functions/parameters are permissible over the boundary of the walled regulatory garden – so the technology is *dictated* by the regulatory status of the players, rather than *defining* that regulatory status.

2.3 This seemingly theoretical issue has ramifications for Ofcom's regulation:

- We are already aware of situations where “originating” networks empower their resellers to populate the PAID header field (i.e. Network Number CLI that purports to unambiguously identify where the call enters the public network), without checking the values received against a whitelist of numbers assigned or ported to the reseller – basically treating the reseller as an upstream public network. But is a reseller operating a SIP server a PECN? And if so, does Ofcom have any visibility that the reseller is providing that function, in order to have any hope of ensuring regulatory compliance? Regulatory compliance must not be restricted to large operators which Ofcom is more able to police, or the consequence will be that regulation itself will distort the market.
- In the reverse case, we are aware of “terminating” networks treating their resellers as public networks. They are certainly passing through PAID header fields; we know this because these have been erroneously displayed to end-users, meaning for example that where the NHS Track & Trace outbound call-centre has made calls, the wrong CLI has been presented, which undoubtedly result in very real consumer harm if the call is consequently ignored. Whilst ND1035 (NNI) calls for the PAID header fields to be passed through, ND1034 (UNI) requires that they're removed on retail connections – as such the “terminating” networks are treating



their resellers as public networks. However, if such resellers cannot get the basics of which CLI to display correct, what confidence can we have, for example, that CLIs withheld by our customers are not being displayed? It goes without saying that without having the same level of regulatory compliance enforced, there is more risk of abuse / fraud and consequently consumer detriment.

- There can be ambiguity around to whom SMP regulations such as call termination apply. In the above terminating case, if the “terminating” network asserts that the reseller is behaving as a network so it’s fine to provide them privileged messaging, what’s to stop that “terminating” network extending this logic and claiming that they’re merely a transit operator so they’re entitled to charge a premium over the regulated termination rate?
- Notwithstanding this, although Ofcom sets out to be clear on who they’re applying regulatory obligations to, it is silent on the issue of who the beneficiaries of such regulation are. As we state above, it is now easy to implement a SIP server, and likewise to deploy interconnects over the public internet. It’s a configuration exercise – there’s no physical action required. What is to stop an enterprise deploying SIP connections to all of the largest operator networks, then demanding that they pay only the regulated termination rate rather than retail tariffs? As a reminder, the whole premise of regulated termination rates being set on a pure-LRIC basis is that the common costs of running the public network are recovered from one’s outbound retail customers. If there **are** no outbound retail customers because everyone professes to be a network, then the whole structure of providing voice services falls down, and at the least if enterprise retail customers are able to side-step retail charging, then it places the burden of recovering common costs solely on residential and SME customers. Consumer harm will result.

2.4 We don’t profess to have an answer to these questions. It seems apparent that at the least Ofcom needs to have a register of who it considers to be PECNs, with contact details (if an entity isn’t on that list, it should be treated as a retail customer). Although the General Conditions of Entitlement set out the obligations of PECNs on a continuing basis, it may be appropriate to set out up-front criteria to qualify as a PECN – for example being within scope and having a plan for compliance with the forthcoming Telecoms Security Requirements (TSRs).

2.5 The limited time available within this market review should not be an excuse to avoid this issue. There is no hard deadline of spring 2021 to resolve the problems raised, because Ofcom can implement a regime largely independently of the SMP regulations arising from this market review. For example, Ofcom could define the public network edge with respect to GC C6 via clarification in the CLI Guidelines; dispute resolution could make clear that unless an entity can demonstrate full compliance with the General Conditions of Entitlement/TSRs, it isn’t a PECN so can’t benefit from regulated termination.



## 3. Mobile and International termination

### Mobile Call Termination

- 3.1 We agree with the proposed market definition and SMP finding in relation to mobile voice call termination. ~~8~~ In terms of international calling, OTT services now offers a credible substitute at the retail level (however, with no interworking from public voice services to OTT applications, there is no substitutability within wholesale market). We agree with Ofcom's proposal to remove the notification requirements on operators that were introduced in 2018. In the 2018, MCT Market Review Statement, Ofcom introduced an obligation for all telecoms providers who hold SMP in MCT to notify Ofcom annually of the mobile termination rate (MTR) charged in the previous charge control year. This remedy was designed to allow Ofcom to effectively monitor compliance and enforcement against telecoms providers that did not comply with the charge control. However considering the awareness of charges in the industry is high and the simplicity of compliance with one cap is straight forward, the industry participants effectively monitor themselves with any abnormalities being reported to Ofcom.
- 3.2 In terms of imposing a regulatory remedy, we accept Ofcom's view that mobile termination rates above LRIC could be damaging to competition, however we believe that the rates below LRIC would have no positive impact on increasing economic efficiency. They are also likely to cause significant shock waves in the mobile industry and reducing profitability (which is already low) and harming long term investment in the telecommunications market, which would ultimately result in consumer harm.
- 3.3 Ofcom's proposal to use an updated version of the 2018 mobile termination model is the optimal choice. This model and the modelling approach used, ensures consistency with previous decisions. The model was specifically designed for the purpose of producing UK mobile termination rates and has been refined and improvements over the last decade.
- 3.4 Ofcom<sup>2</sup> notes the creation of a model by the European Commission. Notwithstanding the fact that this euro model is currently incomplete and not specifically designed to set MTR's in the UK, we have previously advised Ofcom of its shortfalls and lack of suitability for the UK market.
- 3.5 In using the 2018 model, we understand Ofcom was confronted with a number of choices as to how to reflect possible industry changes since the production of the model back in 2018. Undoubtedly, any forecast model never includes 100% accurate future assumptions and the 2018 MCT model is no different. However, there are a number of embedded elements in the industry and in the model

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<sup>2</sup> Paragraph 6.50, [https://www.ofcom.org.uk/data/assets/pdf\\_file/0012/201315/consultation-2021-26-wholesale-voice-markets-review.pdf](https://www.ofcom.org.uk/data/assets/pdf_file/0012/201315/consultation-2021-26-wholesale-voice-markets-review.pdf)



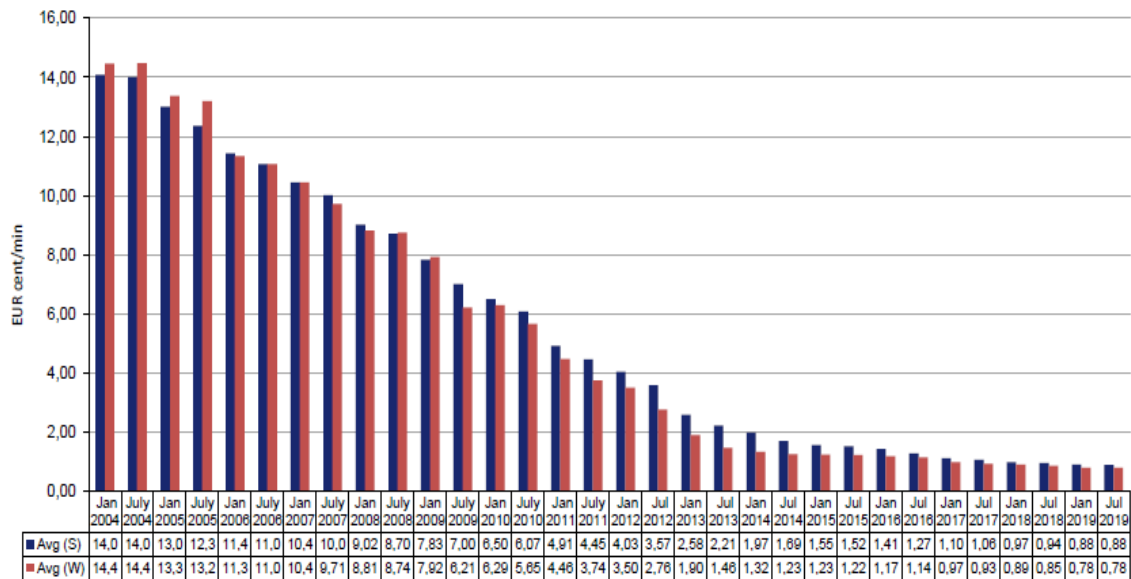
that mean actual forecast outcomes since 2018 will not change the calculated MTR value to any significant degree or benefit the efficiency dynamics within the industry.

**Actual level of MTR<sup>3</sup>:**

3.6 Since 2004, the mobile termination rate across Europe has dropped considerably. In some cases this drop has been from over 14 pence per minute in 2004 to, in the case of the UK, a rate of less than half a pence now. The rate has been set at less than half a pence over the last three years. Therefore, the level of the rate now is such that the material impact on the industry of small percentage changes is minimal. MTR modelling is inherently less sensitive to changes in assumptions because the value of the calculated rate is so much lower.

**3.4. Average MTR: Time series of simple average and weighted average at European level**

Figure 13 Evolution of simple and weighted averages



**MTR in the UK relative to other European countries<sup>4</sup>:**

3.7 As the graph below shows, the UK termination rate is amongst the lowest in Europe at around half a Euro cent compared to some European countries that have rates well in excess of one-euro cent. Although there can be valid reasons for MTR differences across countries, comparison of rates with surrounding countries and countries with perhaps similar networks and at similar stages of technology

<sup>3</sup> [https://berec.europa.eu/eng/document\\_register/subject\\_matter/berec/reports/8900-termination-rates-at-european-level](https://berec.europa.eu/eng/document_register/subject_matter/berec/reports/8900-termination-rates-at-european-level)

<sup>4</sup> [https://berec.europa.eu/eng/document\\_register/subject\\_matter/berec/reports/8900-termination-rates-at-european-level](https://berec.europa.eu/eng/document_register/subject_matter/berec/reports/8900-termination-rates-at-european-level)

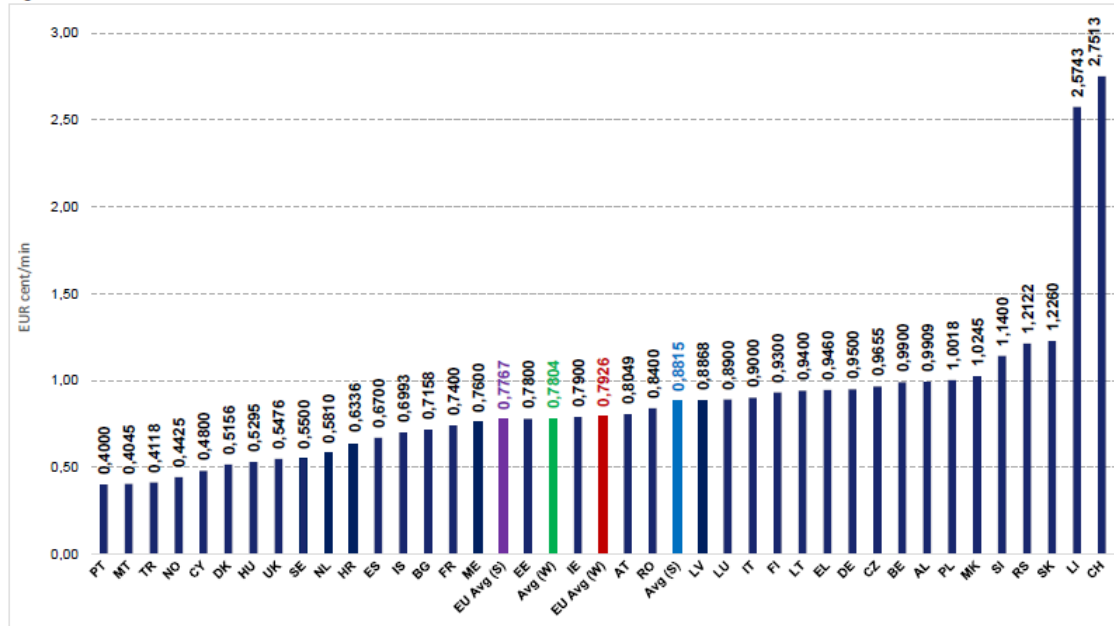




development can be an indication of whether a proposed modelling approach and set of assumptions is suitable.

### MTR per country – July 2019 (EUR cents per minute of service)

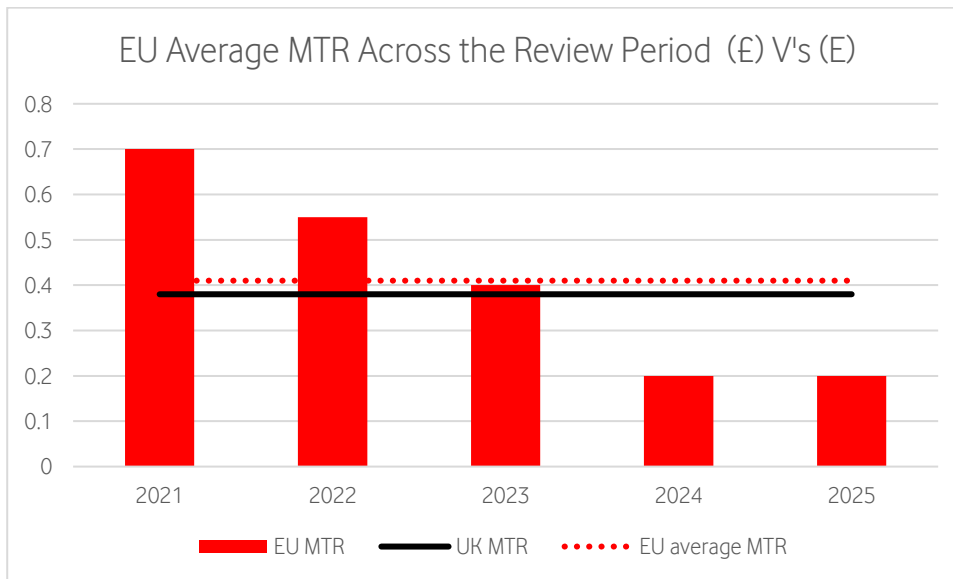
Figure 2 MTRs



### Proposed MTR in the UK relative to other European countries:

3.8 The graph below shows the proposed EU mobile termination rate<sup>5</sup> over the period 2021 to 2025 for most of the EU countries (note, some countries on an exceptional basis are able to charge higher rates for a period), the proposed rate starts at 0.7euro cents in 2021 and reduces to 0.2euro cents in 2025. This equates to an average euro rate over the period of 0.41 euro cents. In the UK, Ofcom's proposal is broadly for a flat rate of 0.39 pence over the period 2021 to 2025 (although there are very small fluctuations in some years). Although the UK rate on average is lower than the EU rate the UK rate is in pounds as opposed to euros, therefore we conclude that Ofcom's proposed rate is very much in line with the EU's proposed rates.

<sup>5</sup> supplementing Directive (EU) 2018/1972 of the European Parliament and of the Council by setting a single maximum Union-wide mobile voice termination rate and a single maximum Union-wide fixed voice termination rate



### Impact of further rate changes to the competition problem identified by Ofcom:

- 3.9 Owners of mobile number ranges have SMP on the termination of calls on those number ranges as identified by Ofcom. Without a charge control remedy in place number range owners may be incentivised to increase their termination rates and start a race to the top, which may lead to higher retail prices and influence the use of mobile communications. If the level of actual termination rates are too high and influences retail pricing, then retail prices may deter consumers from making calls to mobile devices. Therefore, both having a charge control and having it at a level that does not deter use by influencing the retail pricing of calls to mobile devices is important.
- 3.10 However, with the current levels of mobile termination rates in the UK having reduced by over 90% over the last 10 years we believe that further rate cuts will have no impact on providing further competitive benefits for the industry or end retail consumers.
- 3.11 As mentioned above we support Ofcom's use of the 2018 mobile termination rate model, in part because this model is specifically designed to calculate a UK domestic termination rate and in part because the resulting output from the model will cause minimal industry disruption. The mobile industry is at a critical tipping point, where low historic profitability has led to a situation where returns are below the calculated regulated cost of capital and incremental investment is challenging. This is at a time where technological advancements through 5G could have the potential to drastically increase innovation and the whole technological capability of the UK. We do question whether any update to the input assumptions of the 2018 are needed and consider a carry forward of the 2018 model and calculated rates to be an optimal solution. However, on balance we accept Ofcom's updates to the input assumptions and revisions to the 2018 model.



## International calls

- 3.12 We strongly agree with Ofcom's proposal to allow the surcharging of calls from international non-EEA countries in cases where the country in question is surcharging calls from the UK that terminate on their network. We have recognised the issue of surcharging international calls for some time now. It causes an outflow of cash from the UK to non-EEA countries. For Vodafone this amounts to in excess of  $\pounds 8$  and on a UK level the amounts are likely to be in excess of  $\pounds 8$ . In a competitive market, such costs are inevitably reflected in retail pricing to consumers.
- 3.13 The ability to surcharge is recognised across the EEA as a useful way to not only stem the flow of payments to non-EEA operators in termination charges, but also as a valuable tool to ensure rates can be commercially negotiated between countries without the distortive effects of unbalanced regulation. In cases where one country is subject to regulation that strictly controls the termination rates they can charge, free commercial negotiation with another country that has regulatory freedom is impossible.
- 3.14 In the latest draft publication from the EU,<sup>6</sup> whilst they fully recognise the importance of consistent low termination rates for calls no matter where they originate, they recognise the limitation of regulation that does not have global reach. In this draft directive the EU suggest flat consistent rates across Europe and are proposing in line with Ofcom's latest proposal that the surcharging of countries outside of the EEA is only allowed in cases where termination rates are higher than within the EU:

*"The rates set out in this Regulation apply to calls originating and terminating within the Union. These rates do not apply to calls originated outside the Union (i.e. in a third country) unless a provider of termination services in a third-country applies for calls originated in the Union and terminated in that country termination rates equal or below the maximum (mobile and/or fixed) termination rates set out in the Delegated Act, or if a third country applies cost model principles for such rates that are equivalent to those set out in Article 75 and Annex III of the Code."*

- 3.15 The draft EU directive also suggests that countries within the EEA cannot apply surcharges to countries outside of the EEA if the 'third' country applies cost model principles to their rates that are similar to those used within the EEA. We consider that in practise this further point is of little relevance because:

- Generally countries that charge higher rates to EEA and other countries (non-domestically) usually do this by applying a 'surcharge' which is a charge over and above their domestic termination rate, therefore it is very simple to assess that the charges are not produced using similar cost modelling principles.

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<sup>6</sup> Draft supplementing Directive (EU) 2018/1972 of the European Parliament and of the Council by setting a single maximum Union-wide mobile voice termination rate and a single maximum Union-wide fixed voice termination rate



- In cases where countries do not explicitly apply a surcharge yet still have high termination rates their methods of calculating their termination rates are generally opaque. Therefore a similar conclusion that their rates are not produced using similar methodologies to the methodologies used within the EEA is the most sensible assumption (considering the high level of the rates). Any other assumptions or conclusions would involve a huge administrative burden on a national regulator that would in effect have to audit the cost model the other non-EEA country was using to calculate their rates (and requires the assumption that the relevant NRA would co-operate, something that is unlikely to occur in all cases).

3.16 For the reasons set out above we believe that in practise the aim of the draft EU directive is to ensure the termination rate charged by the EEA telecoms providers can be no more than the reciprocal termination rate charged by the relevant international telecoms provider for a call originating in the EEA, or the telecoms provider's domestic rate, whichever is the higher. We consider that this is in line with Ofcom's proposal and enforces the proposals set out in Ofcom's consultation.

3.17 We believe that Ofcom's proposals are in the best interests of consumers and of an overarching goal of lower termination rates, whilst also allowing domestic UK operators the freedom to freely negotiate and protect themselves from other operators that choose to increase termination rates charged to the UK over and above their incremental costs incurred.

3.18 We would however make the following observations regarding Ofcom's description of both the international calling markets and the economics of different termination rates between countries.

### **What countries surcharge**

3.19 Ofcom's consultation states:<sup>7</sup>

*"Of the NRAs that responded to our questionnaire, five NRAs (France, Germany, Ireland, Portugal, and Spain) stated that they applied a form of reciprocity, and 11 stated that domestic telecoms providers were free to negotiate prices commercially with non-EEA telecoms providers. None of the NRAs that responded to our questionnaire told us they apply a single price termination rate on all calls."*

3.20 In fact the position across the EEA and the rest of the world is far more wide-spread, Annex A shows the range of rates a selection of countries charge and shows that both the number of countries and the range of rates used to surcharge is huge. This table is not exhaustive and does exclude a number of additional countries that surcharge but it gives a favour for what happens in the real market.

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<sup>7</sup> Paragraph 6.67, [https://www.ofcom.org.uk/data/assets/pdf\\_file/0012/201315/consultation-2021-26-wholesale-voice-markets-review.pdf](https://www.ofcom.org.uk/data/assets/pdf_file/0012/201315/consultation-2021-26-wholesale-voice-markets-review.pdf)



## The methods used to select countries surcharged

3.21 Ofcom's consultation states:<sup>8</sup>

*"Although we cannot directly control the termination rates charged by providers abroad for calls that originate in the UK, our approach to regulation of termination rates charged by UK telecoms providers on international calls may have an influence on international telecoms providers' ability and incentive to charge high rates for calls from the UK. To the extent that our regulation indirectly results in lower termination rates charged by international telecoms providers, UK consumers would benefit."*

- 3.22 Ofcom is correct that its regulatory reach does not extend past the UK borders, however Ofcom's optimism that their approach to regulation may somehow result in lower international termination rates is not supported by the practical way countries choose to surcharge other groups of countries. The premise that a non-EEA country would look at what rate the UK is charging and then decide based on that rate what surcharge level to apply is incorrect in our commercial experience. Other, non-EEA countries in our experience simply choose to surcharge groups of countries, generally they either surcharge all countries, no countries, or surcharge all countries apart from the ones that they have a 'special relationship' with.
- 3.23 Ofcom's regulatory approach could only possibly result in lower international rates if a country decision to surcharge was based on the current level of termination we charge. However Ofcom's inference may be correct in the future in relation to EEA countries post Brexit. If the draft EU directive discussed above was implemented limiting EEA countries ability to surcharge at a higher rate than the reciprocal country, then the rate the UK charges is important. However, this type of regulation is not in place in other international countries and is not commercially how they set international rates.

## Three options for surcharging

- 3.24 In the consultation Ofcom assesses three options for the regulation of calls from outside the UK;
- I. Maintain current regulation; in which termination rates charged by UK telecoms providers for international calls are capped at the domestic termination rate,
  - II. Pricing freedom; in which there is no price cap on termination rates for international calls.
  - III. Reciprocity; where the termination rate charged by the UK telecoms provider can be no more than the reciprocal termination rate charged by the relevant international telecoms provider for a call originating in the UK, or the telecoms provider's domestic rate, whichever is the higher.

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<sup>8</sup> Paragraph 6.68, [https://www.ofcom.org.uk/data/assets/pdf\\_file/0012/201315/consultation-2021-26-wholesale-voice-markets-review.pdf](https://www.ofcom.org.uk/data/assets/pdf_file/0012/201315/consultation-2021-26-wholesale-voice-markets-review.pdf)



- 3.25 Ofcom proposes the last option on the basis that it is likely to deliver the best outcome to UK consumers. However, the second option of pricing freedom would in practice lead to very similar outcomes based on our traffic flows and the practical implications of how the commercial negotiation of rates plays out.
- 3.26 In terms of the current flow of international mobile calls we have 80% outbound calls for which we are charged 80% in termination charges and inbound we terminate 80% million international minutes for which we charge 80%. A couple of useful conclusions can be derived from this. Firstly, we have an outflow of charges for the termination of calls that we originate. This is not only because we have a greater outflow of calls but also due to the higher termination rates we are currently charged. Secondly, we send more minutes to international countries than we receive. This means that engaging in any kind of ladder rate war that drives up rates would detriment us far more than it would others. We have no incentive to do anything that generically increases rates.
- 3.27 It could be argued that for certain international countries we could have imbalances of traffic (higher volumes of calls that we terminate versus the volume of our calls the other country terminates) that could lead us to be incentivised to increase termination rates. However, in practice the degree of analysis and range of individual rates required for such a targeted policy would be huge and complex and in reality outweigh any likely resulting benefits. As a country that has a net outflow of international calls, the only sensible commercial policy is one that uses surcharging as a defensive and protective strategy to specifically target countries with excessively high surcharges (international termination rates) and uses the freedom to react and also surcharge as a tool to negotiate and attempt to reach a special relationship where the country excepts you from their international surcharging practice.
- 3.28 An argument could and indeed has been made that even if UK regulation were to limit the surcharging of non-EEA calls or EEA calls post Brexit, UK operators would not lose in terms of international calls because of the amount they charge UK retail customers to make those international calls. We consider this argument misguided:
- Firstly, if UK operators were to simply increase retail charges because other international countries increasing their termination rates, consumers in the UK would lose out because the cost of their international calls would increase.
  - Secondly, in line with the information request we completed in August of this year, we actually make very little margin from international calls. International terminating costs account for approximately 95% of our incremental out of bundle international retail



revenue, therefore after considering other costs our incremental out of bundle revenue does not cover the associated international calling costs.<sup>9</sup>

### **Waterbed effect incorrectly applied**

3.29 Ofcom refers to the waterbed effect and explains why it believes that high termination rates charged by mobile operators to fixed operators are analogous to high termination rates charged by UK telecoms providers on international calls. Ofcom says:<sup>10</sup>

*“However, the extent of the waterbed effect is difficult to measure and some profits may be retained by telecoms providers. High termination rates charged by mobile operators to fixed operators are analogous to high termination rates charged by UK telecoms providers on international calls, as high termination profits could provide an incentive for UK telecoms providers to charge lower retail prices, in particular for customers that are likely to receive such calls.”*

3.30 This analogy and use of the waterbed theory to explain why UK operators should be curtailed in raising their international termination rates does not stand up to the practical reality of the commercial arrangements. No UK operator can change the international retail prices of other international countries, UK operators can only change two things:

- I. The international rates they charge their retail customers and
- II. The termination rates they charge other international countries (although this is currently controlled by regulation).

3.31 If UK operators had symmetry and control over both the retail charges and termination charges of the same calls then the waterbed effect could be applied but international operators present an unknown and uncontrollable element that either UK operators or Ofcom can control.



<sup>10</sup> Paragraph 6.75, [https://www.ofcom.gov.uk/data/assets/pdf\\_file/0012/201315/consultation-2021-26-wholesale-voice-markets-review.pdf](https://www.ofcom.gov.uk/data/assets/pdf_file/0012/201315/consultation-2021-26-wholesale-voice-markets-review.pdf)



### No resulting harm is possible

3.32 Ofcom explains that the consumer harm caused by higher termination rates on calls received is difficult to determine. Ofcom goes on to say:<sup>11</sup>

*If UK telecoms providers increase termination rates, there may also be harm to UK consumers if those termination rate increases lead to a reduction in the total number of calls UK consumers receive from abroad. Where UK termination rate increases lead to higher prices on calls to the UK, but these calls are still made or they cause international callers to switch to OTT when calling the UK, this would not harm UK consumers. The magnitude of the harm would therefore depend on the extent to which termination rate increases would be passed through to retail prices on calls to the UK, how responsive callers to the UK are to increases in retail prices, whether those callers are able to switch to OTT, and how much UK consumers value those calls.*

3.33 Ofcom's argument seems to be that consumers would be harmed if UK operators were allowed to increase international termination rates and those termination rate increases led specifically to that country increasing the retail charges its customers pay for those calls, which in turn led to those customers not making those international calls to the UK. However, Ofcom acknowledges that it would not lead to consumer harm if (a) the calls were then made using other methods such as using OTT services, or (b) if the consumers did not value those calls.

3.34 Again, the commercial reality of the international market and relationship between countries is not considered. Firstly, countries tend to surcharge or not surcharge international calls from other countries. What specifically the UK does in terms of surcharging will have little effect on their policy, indeed the practice has existed in other EU countries for some time, so the UK following suit is unlikely to alter the existing dynamic. The only influence UK termination rates charged on their calls may have on the termination rates they charge is if we directly approach them and offer to come to an arrangement whereby we will not surcharge them in return for them exempting us from their surcharging (we cannot do this today due to our inability to surcharge). Secondly, there is a rapid uptake of international OTT voice traffic; in 2019, international OTT voice traffic reached one trillion minutes up from 432million the year before<sup>12</sup> therefore it provides a very real constraint on the retail prices of traditional international calls.

### Overall consumer impact

3.35 We agree with Ofcom that the optimum outcome for consumers is low international termination rates or internationally consistent rates that tend towards low. However, the reality is that Ofcom cannot control global termination rates and many countries surcharge the termination of international calls

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<sup>11</sup> Paragraph 6.76, [https://www.ofcom.org.uk/\\_data/assets/pdf\\_file/0012/201315/consultation-2021-26-wholesale-voice-markets-review.pdf](https://www.ofcom.org.uk/_data/assets/pdf_file/0012/201315/consultation-2021-26-wholesale-voice-markets-review.pdf)

<sup>12</sup> <https://www.capacitymedia.com/articles/3825183/international-ott-voice-traffic-tops-1tn-minutes-in-2019>





at rates that far outstrip any resemblance of their costs incurred in delivering the termination service. Many international countries simply surcharge UK originated calls rather than domestic calls as a way of bring additional revenue into their country. It is a practice that is detrimental to all UK operators and to the whole traditional international voice calling market but nonetheless it continues.

- 3.36 If Ofcom could regulate globally against the practice of surcharging international calls the optimum solution could be achieved, but as this is not possible the best second option is to give UK operators the ability to try and commercially negotiate with other international countries and come to arrangements where termination rates charged between them are as low as possible. This is how consumers in the UK can be best protected given the commercial realities of the situation. As mentioned above the balance of traffic to and from the UK means that UK operators do not have an incentive to surcharge and drive international termination rates up anyway therefore Ofcom's options of pricing freedom or reciprocity would achieve the same outcome.

### **Roaming impact – Ofcom's proposals will help enable us to continue to offer EU roaming**

- 3.37 At present, in line with EU regulation Vodafone offer retail roaming at no additional cost in the EU. Underpinning this retail regulation is wholesale price caps on the amount EU countries can charge each other for the termination of calls on their network. If a UK Vodafone customer is in France and receives UK originated voice call's the French network will charge Vodafone UK for terminating those calls. The amount the French network charge and the volume of calls received by the UK Vodafone customer whilst in France will determine the flow of cash from Vodafone UK to the French operator. Likewise when a French customer is roaming in the UK and they receive calls from France and other European countries the French operator is charged by Vodafone UK a termination rate.
- 3.38 The propensity of a UK operator mobile phone customers to roam in Europe is higher compared to other EU country customers' propensity to roam in the UK. Put simply we travel in Europe more than other European citizens travel in the UK, which considering the weather is not surprising<sup>13</sup>.
- 3.39 For this reason it is likely that if roaming between the EU and UK post Brexit is offered to customers at no additional retail cost, then the resulting flow of funds in wholesale charges from the UK to the EU

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<sup>13</sup> See ONS leisure and tourism page – 2019

<https://www.ons.gov.uk/peoplepopulationandcommunity/leisureandtourism/articles/traveltrends/2019>

- Overseas residents made 40.9 million visits to the UK in 2019, an increase of 0.6 million compared with 2018.
- There were 93.1 million visits overseas by UK residents in 2019, an increase of 3% compared with 2018.

UK consumers tend to use their phones abroad a lot more on account of the UK's more generous retail offerings, such as unlimited data and call plans. The nature of holidays also has a bearing on usage. Inbound visitors to the UK tend to take more sight-seeing holidays, while UK consumers travelling abroad undertaking more beach holidays, consequently have more time to stream content, driving up data consumption.



will be higher than the received wholesale revenue from EU countries into the UK. The higher proportion of calls made by the higher proportion of our UK customers roaming will most likely always mean there is a flow of termination revenue from the UK towards EU countries.

3.40 However it is not only the volume of calls that determine the flow of termination revenue but also the absolute termination rate charged. Over the period of the next five years as shown on the graph earlier the average termination rate of the EU and UK is proposed to be very similar. Towards the start of the period the EU rates in some countries are far higher than the UK rate, but over time they converge and at the end of the period the rate in the UK is actually slightly higher than the EU rate<sup>14</sup>. We consider that the size of the rate difference and the slight fluctuations in the termination rates between the EU and UK over the next five years will not hamper the ability of the UK and EU to offer retail roaming to their customers at no additional charge. This is because in absolute terms the difference between the rates is very small being at worst (i.e. when the EU rates are higher than the UK rates at the start of the period) less than 0.5 pence.

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<sup>14</sup> Exchange rate taken September 2020



## 4. Answers to Ofcom Questions

*Question 4.1: Do you agree with our proposal not to regulate the WCO market on the basis that it no longer fulfils the three criteria test set out in the 2014 EC Recommendation?*

While we acknowledged the declining use of Carrier PreSelect (CPS) as a means to originate calls across the market. It is important to recognise that for some end users, this wholesale service continues to underpin their retail services. Alternatives may be available from mobile origination to OTT services, however Ofcom's own research indicates that many consumers continue to rely on their landline as the principle means of communication.

With this in mind we believe it is important for Ofcom to obtain key safeguards on availability and pricing from BT until WLR stop-sell at the end of 2023. While we welcome the commitments offered by BT on the service, we have concerns around future pricing, believing Ofcom needs to be clearer over what level of pricing can be charged. Given the relationship between WLR and CPS is interlinked, we believe Ofcom should be working to secure that CPS and WLR pricing does not increase by more than CPI before September 2023. Ofcom have shown their willingness in the past to broker specific voluntary pricing commitments from BT (for example over voice only line rental users) and believe a similar level of safeguarding is necessary for both CPS and WLR to protect consumers and ensure an orderly migration on to a new generation of products. This should apply to both single line and ISDN variants, so ensure no individual group of consumers, be they residential or business are left behind.

*Question 5.1: Do you agree with our proposed market definition in relation to WCT?*

Vodafone agrees with Ofcom's proposed definition. It is clear that a separate product market for WCT exists for each individual fixed geographic number (grouped into lots of geographic numbers controlled by a particular terminating providers) and delineated by the relevant geographic market determined the area in which the provider offers termination services.

However, as we set out in the pre-amble to this response, Ofcom needs to give greater consideration to exactly what constitutes a "communications provider" in the proposed SMP wording.

*Question 5.2: Do you agree with our proposed market definition in relation to MCT?*

We agree with the proposed market definition and SMP finding in relation to mobile voice call termination. OTT services such as WhatsApp do not provide sufficient constraint on mobile domestic voice termination to effectively control the price, however in terms of international calling OTT services now present much more of a credible substitute.



**Question 5.3:** *Do you agree with our provisional conclusion that each provider of WCT has SMP in the market served by that provider?*

Yes, given the CP terminating the calls is uniquely able to route those calls directly to the end user, they do so from a position of market power. Where the number range owning CP makes use of a hosting provider to terminate the traffic on their behalf, any regulatory obligations on making the regulated termination available should apply in a transparent way.

**Question 5.4:** *Do you agree with our provisional conclusion that each provider of MCT has SMP in the market served by that provider?*

We agree with this provisional conclusion.

**Question 6.1:** *Do you agree with our proposal to maintain a network access obligation on all WCT providers?*

Yes, CPs must make their services available for termination. Where a hosting provider is used, then it should be clear how the regulated rate will be made available by that hosting provider. It cannot be the case that the hosting provider is able to charge a transit charge in addition to a termination rate at all handover locations. This practice should be prohibited.

To allow CPs to exercise their right to seek network access, we further believe that it should be a regulatory requirement for WCT providers to supply an email address that Ofcom will publish on its website to facilitate contact.

**Question 6.2:** *Do you agree with our proposed remedies that would be specific to BT's provision of WCT? We welcome evidence on all aspects of our proposals and in particular whether we should maintain BT's obligation of no undue discrimination.*

It remains necessary to impose additional measure upon BT in respect of call termination. Given their scale and market position (as both a significant originator, terminator, transit provider, hosting partner, supplier of number portability conveyance and a range of special service that necessitate the need for BT interconnection) it vital that they are not able to discriminate. Its scale and role in the market would give it the incentive to use that influence and market power to discriminate, to the detriment of other CPs and ultimately consumers. The obligation to both publish a reference offer and to produce financial reporting is are also vital to ensure a level of transparency, ensuing that discrimination is not occurring. We are unaware of any other remedies that would address these concerns sufficiently to preserve the consumer interest.



**Question 6.3:** *Do you agree with our proposed charge control on WCT and the analysis that informed this proposal?*

We support Ofcom's proposal to base the price cap for Wholesale Call Termination on the 2017 WCT cost model. Given the short passage of time and the limited changes that have occurred in the cost base, together with the low overall level of the charge, it would both be disproportionate and necessary to undertake a new cost modelling exercise. We therefore support the proposal to base the cap on the 2017 estimate of LRIC (adjusted for inflation).

**Question 6.4:** *Do you agree with our proposal to maintain an access obligation on all MCT providers?*

We agree with this proposal.

**Question 6.5:** *Do you agree with our proposed charge control on MCT and the analysis that informed this proposal?*

We accept Ofcom's view that mobile termination rates above LRIC could be damaging to competition, however we believe that rates below LRIC would not only have no impact on increasing economic efficiency but also could cause significant shock waves in the mobile industry and reduce to a degree the already low levels of profit.

We believe the optimal choice is Ofcom's proposal to use an updated version of the 2018 mobile termination model previously used. This model and modelling approach ensures consistency with previous decisions and is specifically designed for the purpose of producing UK mobile termination rates. The model also has the benefit of refinement and improvements over the last 10+ years.

**Question 6.6:** *Do you agree with our proposal to introduce a reciprocity condition on the termination of international calls and the analysis that informed this proposal?*

We strongly agree with Ofcom's proposal to allow the surcharging of calls from international non-EEA countries in cases where the country in question is surcharging calls from the UK that terminate on their network. We have recognised the issue of surcharging international calls for some time now. It causes an outflow of cash from the UK to non-EEA countries with amounts likely to be in excess of £.

**Question 7.1:** *Do you agree with our proposed non-pricing remedies specific to BT?*

It is vital that BT is not able to discriminate in relation to the provision of interconnection and accommodation. A vertically integrated CP such as BT with such a large share of the overall market (and influence of most voice traffic in one form or another, be it transit, porting, call termination or origination) like



BT, has strong incentives to provide network access on terms that disadvantage downstream rivals or to discriminate selectively between competing providers.

Likewise it is important to ensure there is transparency around what charges, terms and conditions are offered, to ensure there is clear visibility on what is offer and how it can be used in the market. Quality of Service standards remain a key feature of any interconnection arrangement and burden of providing this is minimal, while offering reassurance to both CPs and end users.

There is however a fundamental need for a new Reference Offer, spanning TDM and IP, and while Ofcom have set out an obligation for BT to produce a reference offer, they should be far more specific around the type of reference offer that should be provided, including the necessity to introduce reciprocal terms to prevent BT abusing its market position. The SIA and IPX agreements today are not fit for purpose and reform through a new reference offer should become an Ofcom priority.

*Question 7.2: Do you agree with our proposals relating to BT providing transparency on its migration timetable?*

It is vital that BT commits to migration a full six months ahead of any migration dates (with commercial migration occurring regardless of any delays to the number blocks moving in the network). Given the amount of work required to be conducted by other CPs to facilitate a migration, a period of 90 days commercial parallel running should occur (where FTR is accessible both at TDM and IP), this will enable CPs to plan effectivity and complete all the necessary work to enable migration to occur smoothly, without fear of any commercial penalties.

We do not consider that a 90 day period would result in any undue burden on BT, indeed such an approach may actually assist BT in the practicalities of migration. We are aware that, in line with many other networks, BT has deployed a Central Routing Engine (CRE) to its IP network, which supersedes legacy technology where routing data was held in individual switching platforms. By making use of this, BT will be able to efficiently route calls that are delivered over an IP interconnection for the short period (up to 90 days) before it actually closes the DLE in question:

1. A significant proportion of calls will be to numbers that have been exported from BT. It should be noted that this proportion will increase over coming years (prior to BT's DLE closure), as any [non-BT] WLR customers will migrate to an IP voice solution utilising SoGEA; unlike WLR where call termination is handled by BT, this will use the CP's IP call server infrastructure, meaning that the number in question will be exported. &lt;

For calls to these numbers, for as long as onward routing prevails, we would expect that BT will hold the exporting data on their CRE, at least from when the number range is migrated from the DLE to IP. By pre-loading this data e.g. 90 days in advance, any calls to exported numbers that are handed over to BT via IP interconnection would be intercepted and could be routed to the recipient network



without having to route via the soon-to-be obsolescent DLE. In contrast, where an IP originator is incentivised to hand the call over at the DLE as this is the only way to receive the regulated FTR until immediately before the migration, BT would then have to route the call through the TDM network, in most cases to route to an IP interconnect for handover to the recipient – this means two unnecessary IP<->TDM interworkings (one in the originator, one in BT).

2. For calls to numbers that are still native to BT, we acknowledge that by extending the parallel run period from 30 to 90 days would increase the number of calls which it would receive as IP and have to interwork to TDM for termination. However, it would also allow BT to focus on the complex exercise of migrating its own customer base at the critical period, rather than having this clouded by needed to deal with routing of other providers' traffic. In particular, if all IP operators are using an IP interconnect prior to the migration exercise, it should mean that BT only needs to change the CRE entry against migrating numbers, to cut the third-party-originated traffic from terminating to the legacy DLE to the future IP platform.

***Question 7.3:*** *Do you agree with our proposal to require BT to provide WCT for all geographic calls as if its migration to IP is complete, from 1 April 2025?*

We agree with Ofcom's proposal. It must be highlighted that 2025 will not mark the date at which call termination via IP to BT's network will be regulated, but instead a backstop date. Even prior to 2025, calls to any number ranges that BT has migrated to IP termination will be regulated when interconnection is via IP. However, from April 2025, calls utilising an IP handover will attract the regulated termination rate, even if BT's migration plans have slipped. Whilst wishing BT well in its migration programme, we consider this is an important safeguard, given the level of industry resources which were tied up in the Consult21 initiative a decade ago, which ultimately resulted in just one DLE closure.

***Question 7.4:*** *Do you agree with our proposal to subject BT's provision of TDM interconnection circuits to a charge control which expires on 1 April 2025?*

It remains essential that BT's TDM interconnect charges remain subject to a charge control until end of life whatever that date ultimately is. Given BT controls the timetable to move number ranges across, other CPs will need to pass traffic to BT's TDM network until such time as migration occurs. This necessitates the use of interconnection services, and in the same way as call termination remains a SMP bottleneck, so to do the interconnection facilities necessary to make use of it. It is therefore entirely proportionate for these services to be subject to an ongoing charge control.

***Question 7.5:*** *Do you agree with our proposal to require BT to provide IP interconnection on fair and reasonable terms, conditions and charges supplemented by guidance?*



Guidance is necessary to prevent BT taking the broadest most favorable interpretation of their obligations. In particular we would welcome details of the cost standard Ofcom would identify when interpreting *reasonably derived from the costs of provision*. It would not be appropriate to leave consideration of this aspect until, for example, a regulatory dispute is raised, because the uncertainty in the meantime will damage competition.

**Question 7.6:** *Do you have any concerns regarding the existing obligations, which do not require a hosting party to ensure that hosted providers can make WCT available at an accessible POC?*

We have concerns that parties has sought to use Hosting to evade interconnection at the point necessary to secure the regulated termination rate. The hosting party typically has no obligation to highlight the regulated WCT point of connection and the rangeholder is often difficult to locate, evading normal commercial interaction. FTRs are often combined with charges for unregulated services, such as transit and conveyance, making it impossible to target termination alone. We believe there must be a clear obligation on the hosting party to highlight the WCT regulated termination point to facilitate cost effective and efficient call routing. Hosting must not be used as a method to circumvent regulation and we welcome all steps by Ofcom to close this loophole. While we are not opposed to fixed telecoms providers seeking to reach a commercial agreement to combine these charges, it much be done by mutual agreement, with originating providers clear on what Points of connect are available to secure the FTR.

**Question 8.1:** *Do you agree with our proposed regulatory reporting requirements on BT?*

Given the status of Call Origination, we acknowledge that the time has now come for it be removed from BT's reporting requirements. We however disagree with the proposal to remove the requirement on BT to publish market level information on Wholesale Call Termination and Interconnection. This is a regulated service where Openreach have SMP. This should only occur once the transition to IP is complete.

The ongoing publication of service level revenue, volume and price information for WCT and TDM interconnection at the DLE remains necessary while these facilities are used to secure FTR. Likewise the requirement for BT to publish revenue, volume, price and cost information for some IP interconnection services is necessary. We believe BT should publically disclose the cost information on TDM and IP interconnection, to ensure transparency around the migration. We do not see any justification for this information only to be provided to Ofcom on a confidential basis.





***Question 9.1:** Do you agree with our initial view that the risks associated with IP interconnection should be manageable by industry?*

***Question 9.2:** Do you agree with our proposed guidance concerning IP interconnection?*

Ofcom is explicit in the consultation (which we would expect to be repeated in the final statement) that usage of the NICC Standards represents the default, and that any party veering from those standards should meet the additional costs of doing so. With this guidance, we believe that Ofcom is correct to conclude that the technical risks associated with IP interconnection are manageable by industry. We encourage Ofcom to continue to play a full and active role in NICC Standards, as a catalyst to ensure that any differences can be resolved at a technical level rather than snowballing into a commercial/regulatory dispute.

***Question 10.1:** Do you agree with our proposed market definition and SMP assessment for termination on the 070 number range?*

It is clear that call termination on 070 services remain a bottleneck services, with callers usually unaware of the terminating numbers that 070 services are translated into, believing them to be standard UK mobile ranges.

***Question 10.2:** Do you agree with our proposed remedies for operators holding SMP for termination on the 070 number range?*

Aligning 070 services to the MTR seems a proportionate approach.

***Question 11.1:** Do you agree with the analysis and conclusion of our general position on not renewing the DCC price cap?*

We agree. There has been an anomaly for many years that while Average Portability Conveyance Charges (APPCs) associated with GNP/NGNP have been subject to a fair and reasonable requirement, the equivalent Donor Conveyance Charges (DCC) for MNP have been subject to a charge control. This merely resulted in consequent regulatory disputes differing over whether to challenge the level of the charge control (DCC) or Ofcom's interpretation of fair and reasonable (GNP/NGNP). The current proposal aligns the DCC regime with the GNP/NGNP one – fair and reasonable, with firm guidance about what constitutes fair and reasonable. We believe this a proportionate and sensible approach.



## Annex A – Evidence of surcharges

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