



NON-CONFIDENTIAL VERSION

Future of telephone numbers

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1 Executive summary

- 1.1 Telephone numbers are very important to our customers. They can provide reassurance that the caller is who they say they are. Many businesses rely on telephone numbers to support their brand and marketing, particularly if they are catering to a local customer base.
- 1.2 The National Telephone Numbering Plan (“Numbering Plan”) is an essential document that sets out the telephone numbers available for allocation and any restrictions on how they may be adopted or used.
- 1.3 Many of these restrictions have previously been determined by the network architecture of the PSTN. The imminent migration to IP gives us the potential to unshackle ourselves from these restrictions, and launch new innovative products and services to deliver greater customer benefits that meet changing consumer needs.
- 1.4 We welcome this timely consultation by Ofcom, which offers an opportunity to review the whole Numbering Plan to ensure that it is still fit for purpose and remains futureproof.
- 1.5 Our response sets out BT’s views on how best to meet these objectives. In short, Ofcom should:
 - Remove the obligation to provide local dialling as soon as possible. This short-hand way of making a local call without adding the first four or five digits is not often used by consumers given the prevalence of mobile phones and landline handsets which enable numbers to be entered onto speed dial. This will reduce the costs and complexities of building new Internet Protocol (IP) products and services and is unlikely to have a significant consumer detriment. However Ofcom should not yet force the closure of local dialling but rather allow it to phase out naturally with the transition to IP.
 - Keep flexibility in the Numbering Plan for communications providers (CPs) to migrate IP services out of area so that consumers can keep a ‘number for life’. This will erode location significance slightly over time, but the risk of consumer confusion would be minimised as it would be a gradual process of change.
 - Provide guidance on converged numbering to give clarity around origination and termination rates and switching processes in particular. Although it is not the right time to remove the distinction between mobile and fixed number ranges it is important that CPs are clear on how these numbers should be treated when attached to converged or hybrid services.
 - Not close down the 084 and 087 ranges quickly without proper consideration as it is likely to divert any issues to other number ranges such as 09. It makes sense to take a cautious approach and phase out these ranges over time as they become used less and less.
 - Take further steps to reduce consumer harm including the banning of all “cash for calls”, restricting the use of signposting services which can lead to customers paying higher prices than they expected to make a call (“bill shock”) and clarifying that CPs can limit excessive calling to premium rate numbers.

2 Introduction

- 2.1 The Numbering Plan is important in ensuring consistency of use of numbers across industry, which in turn provides clarity and confidence to consumers around the charges that they will pay when making a telephone call.
- 2.2 However the Numbering Plan, and the rules within it, is determined by the network architecture of the Public Switched Telephone Network (PSTN).
- 2.3 We have plans to modernise our network and switch off the PSTN migrating all our services to IP by 2025. This will allow us to launch new innovative products and services to deliver greater customer benefits that meet changing consumer needs. Other Communications Providers (CPs) are also progressing their plans. To do this well, we need a supportive regulatory framework. Updating the Numbering Plan to provide us with more flexibility as to how we allocate telephone numbers is central to this.
- 2.4 Given all the developments in telecoms services and consumer behaviour in recent years such as the migration to mobile and over the top (OTT) services we believe that now is an ideal time to complete a full review to ensure that the plan is still fit for purpose and futureproof.
- 2.5 Ofcom's consultation picks up on several key areas that need attention in the immediate future but this consultation is not a comprehensive review of the plan and numbering in general. Ofcom notes that this is only the first step in a process of ensuring that UK Numbering Policy is ready for the migration to IP and beyond, and it will need to follow it up with further consultations and industry discussions around specific topics.

To capitalise on the flexibility provided by IP industry needs some modifications to the plan, in a way that works during the transition

- 2.6 The migration from PSTN services to IP services will enable BT to improve consumers' experience of communications services with new benefits and features.
- 2.7 Existing numbering rules have been based around the restrictions in place due to the PSTN architecture that is tied to exchange locations. The move to IP provides us with much more flexibility and many opportunities to not only improve number management but also develop new IP products and services.
- 2.8 After the move to IP Ofcom will be able to distribute numbers in smaller blocks, and therefore ensure a much more efficient use of numbers which will result in fewer number scarcity issues.

- 2.9 IP also makes it possible to migrate numbers to different locations, allowing consumers to take their numbers with them when they move. We will also be able to deliver various types of converged services. This could include having mobile numbers terminating on fixed devices or vice-versa, or having one number terminating on multiple devices, or any combination thereof.
- 2.10 It is important to ensure that the Numbering Plan facilitates these opportunities and does not block innovation. But we must make sure that we consider the functioning of the PSTN until we have fully transitioned to IP and in the meantime need a plan that accommodates both.

The plan also needs to consider other technological developments to be future proof

- 2.11 Fixed Mobile Convergence (FMC), when people will be able to have multiple numbers attached to one device or one number terminating on multiple devices regardless of whether they are landline or mobile, is expected to become more prevalent in the next few years. We have already seen technological advancements that can easily facilitate IP and mobile call termination on multiple network devices. This highlights the need for a Numbering Plan that supports converged devices with clear tariffing (both consumer and interconnect tariffs) and switching arrangements for the various number ranges they may employ. This will be required until the harmonisation of termination and origination rates and until we have a single number portability process facilitated by a common numbering database.
- 2.12 Ofcom calls out the important developments relating to demand for numbering resources such as machine-to-machine services but says that it will consider whether to review them separately. BT considers that a review of the potential demands of these services and the “Internet of Things” (IoT) on number resources cannot be ignored. This should not be done in total isolation from a debate about the future of telephony numbers.
- 2.13 The fact that some of these services may still include a voice element means that the numbering standard that they utilise will have an impact on consumers. Industry needs to work with Ofcom on determining which resources should be used to meet the projected demands in the near term in order to avoid or manage pressures on resources within the Numbering Plan.

The ways in which consumers use numbers has evolved

- 2.14 The long term trend in telecoms has seen a reduction in fixed voice calls year on year as consumers opt for mobile or OTT services.
- 2.15 This has led to the number of fixed call minutes almost halving between 2012 and 2017¹ meanwhile the volume of mobile calls rose 15%². This indicates a shift towards alternative methods of communication such as OTT calling and messaging. And the

¹ From 103bn to 54bn

² From ~150bn to ~173bn, both from https://www.ofcom.org.uk/data/assets/pdf_file/0022/117256/CMR-2018-narrative-report.pdf

trend is continuing. Ofcom's last quarterly telecoms update (May 2019) confirms this trend. It found that fixed-originated call volumes totalled 10.3 billion minutes in Q4 2018, a year-on year decrease of 2.4 billion minutes (18.7%)³.

- 2.16 However this does not mean that numbers are becoming less significant. The numbers allocated by Ofcom from the Numbering Plan are no longer just used for traditional telephone services. Once allocated, people use their telephone number as an identifier for many other services. Apple Facetime, Skype, WhatsApp etc. all use an individuals' phone numbers as methods of registering and identifying them. This is one further reason why a consumer may wish to keep a number for life, or have one number that can identify them across multiple devices.
- 2.17 Devices that consumers use have developed. As Ofcom's research⁴ states individuals no longer tend to remember or store phone numbers outside of their device as their devices (both fixed and mobile) store them easily. This also means that they tend not to dial numbers manually as they can select a contact in their phone, or use hyperlinks or return call options for the majority of their calls.
- 2.18 Most voice calls are now included within bundles. This provides clarity for consumers who can predict roughly what their monthly charges will be. There is however a downside to this - that they may not always be familiar with individual pricings of various number ranges. Thus on occasions when they make a call to a number outside of their bundle, they may not be clear on the charges they will face.
- 2.19 Many services that used to be provided over the phone are now available over the internet. This has led to a reduction in calls to premium rate numbers such as the 118, 084, 087 and 09 ranges but also a reduction in awareness around the purpose of these numbers.
- 2.20 We are pleased to see that Ofcom's research is being used to consider how some of these changes in consumer behaviour and experiences should be reflected in changes to the Numbering Plan. However we believe that further research could be valuable in drawing conclusions about consumers' experiences, particularly around the premium rate number ranges.

³ <https://www.ofcom.org.uk/research-and-data/telecoms-research/data-updates/telecommunications-market-data-update-q4-2018>

⁴ https://www.ofcom.org.uk/data/assets/pdf_file/0029/129098/future-telephone-numbering-research-study.pdf

3 Geographic Numbering

- 3.1 IP will remove the restrictions imposed due to the PSTN and we will have the opportunity to be more flexible with our numbering. This can deliver greater benefits to consumers if the regulation facilitates them.
- 3.2 BT would like to see the removal of the current obligation to provide local dialling. This would allow local dialling to be phased out as part of the migration to IP. We agree with Ofcom's approach to not hasten the erosion of the geographic significance of numbers, particularly whilst the PSTN is still in use. The Numbering Plan should also provide the flexibility to allow customers to maintain a "number for life" that they can take with them wherever they move (within the UK).
- 3.3 Ofcom needs to clarify the rules and regulations around converged services which may use both fixed and mobile number ranges. Without clarity over termination and origination rates or porting processes it will cause confusion that can complicate product offerings and stifle the innovation of new products and services.

The obligation to provide local dialling should be removed immediately

- 3.4 We agree with Ofcom that local dialling is no longer a benefit to most consumers. It doesn't reflect the way that the majority of calls to landline numbers are now made.
- 3.5 Most calls are now made from mobile phones, which along with many home phones allow consumers to utilise pre-programmed numbers so that they rarely have to dial a number. In the cases where a consumer hasn't pre-programmed a number into their phone if that call is made from or to a mobile, then they have to dial the full number, so the vast majority of consumers are used to not relying on local dialling regularly. In six locations⁵ Ofcom has already closed local dialling to deal with number scarcity with minimal disruption.
- 3.6 The key difference between PSTN and IP technologies is that the PSTN is split into physical geographic areas that represent the physical reach of a telephone exchange across its catchment area. Such physical constraints do not apply to IP. The creation of mechanisms to artificially replicate area catchments and apply numbering principles to IP, on a geographic basis, are virtually impossible to achieve given the lack of an industry definition of area coded geography based on post codes or map references.

⁵ Aberdeen (01224), Bournemouth (01202), Bradford (01274), Brighton (01273), Middlesbrough (01642) and Milton Keynes (01908).

- 3.7 Therefore it is expensive and time consuming to build local dialling into IP products, technically challenging and increasingly irrelevant as many “local” numbers move out of area in an IP world. These resources would be better used elsewhere. We anticipate the launch of more IP products as consumers migrate away from the PSTN. Ofcom also notes the existence of some IP products already without local dialling and does not consider this to be an issue for consumers.
- 3.8 Ofcom should therefore remove the obligation from the Numbering Plan immediately. However we do not think that Ofcom should mandate that local dialling be removed everywhere now. This will provide CPs with the flexibility to design and launch their new IP products in a way that meets their consumers’ needs best.

Phasing out local dialling as part of the migration to IP will provide the best consumer experience

- 3.9 BT considers that the migration from PSTN to IP voice products would be the ideal time to inform consumers of the removal of local dialling. It could form part of the communications plan explaining how the new product will work. It would be inefficient to launch these products with local dialling only for it to be removed later and to need further customer engagement to explain the changes.
- 3.10 Ofcom suggests that consumers may be confused if CPs are left to decide themselves whether or not to provide local dialling. We disagree and believe that CPs should be able to choose their own approach to phasing out local dialling, on the understanding that it is in their own interests to communicate the changes to customers.
- 3.11 Most consumers subscribe to one CP only so actions of other CPs are not relevant to them and are very unlikely to cause confusion. When consumers switch products they would be informed if local dialling is available or not, preventing any confusion. On reverting to a product with local dialling consumers would face no hardship.
- 3.12 If, on the other hand, Ofcom mandated the removal of local dialling in all cases on a set date it would raise two problems. First, it would require us to invest either in removing it on the PSTN which is a network that will be closing down or launching it on IP to only remove it later. Second, it risks causing confusion for customers. We would need a national campaign to inform all customers of the removal of local dialling co-ordinated across industry or promoted by Ofcom and/or the UK Government. This would require dedicated resource, when this messaging could be more easily combined with the messaging about the migration from PSTN to IP.
- 3.13 If Ofcom wants to go further and ensure that local dialling is closed down by 2025, then it could require that local dialling is not provided on IP products. We think that this would be an unnecessary extension of regulation into product design and we would prefer that Ofcom waits to see how the market develops.

Continuing the policy of removing local dialling only in locations where it is necessary to address number scarcity is sensible

- 3.14 We support Ofcom's approach of closing local dialling when necessary to avoid number exhaustion. We believe that given the small number of areas this is likely to affect between now and 2025 there is no need to force closure across the whole country.
- 3.15 Ofcom has closed local dialling in six areas to address number scarcity. However no changes have been needed since 2014. It would be useful for Ofcom to review and share learnings from the areas where dialling codes have already been removed, so that these can be transferred into the plans for the future.
- 3.16 Once migration to IP is complete in 2025, the main driver for number scarcity issues, namely the provision of large number blocks, will no longer be necessary⁶. We would therefore expect that number scarcity would cease to be a concern at this point. For those areas that do run out of numbers Ofcom could now provision numbers from another number range assuming local dialling will not be required on IP products.
- 3.17 Therefore only areas that will run out of numbers before 2025 should be of concern. Ofcom should review how many areas they anticipate this will be. In their consultation on Number Charging⁷, Ofcom predicted the complete exhaustion of a further 12 areas prior to 2025, and the stock of numbers below to be 10% in a further 28 areas. However Ofcom has encouraged CPs to return number blocks (BT itself has returned over [X] numbers in these areas, and well over [X] in other areas since 2016), so some of these areas may no longer be at risk.
- 3.18 We agree with Ofcom's position that a phased, targeted approach will be better for customers and that the communications campaigns will be easier to manage. In addition it will also require less resource from industry which, as stated earlier, is better utilised in delivering the migration to IP.
- 3.19 We believe that Ofcom's concerns about confusion are somewhat overstated. A consumer would likely only need to know the rules for their local area, which they would become accustomed to very quickly.
- 3.20 The practice in other geographic locations would be irrelevant to them, and would only affect them if they travelled to another location with a different practice, and made a call from a fixed line to another fixed line within that location. This may well occur on occasion but is most likely for people who live in one location and work in another and would likely become accustomed to the minor difference in practice.

⁶ Refer to BT's response to 'Promoting trust in telephone numbers' (6 June 2019), Section 6.

⁷ https://www.ofcom.org.uk/data/assets/pdf_file/0023/93245/Promoting-efficient-use-of-geographic-telephone-numbers-consultation.pdf

- 3.21 Consumers who need to understand the practices in many different locations will be few and far between and the level of consumer harm as a result of confusion about whether or not to include a dialling code is likely to be minimal.
- 3.22 We do, however, accept that some vulnerable customers might find this change confusing and it's important that the changes are supported by an effective communications campaign to raise awareness in advance.
- 3.23 In business, local firms that advertise their number without the area code will have to adapt their advertising. Doing this one location at a time is unlikely to have a significant impact on these firms. In practice, we expect that most businesses include the area code on their advertising, so as to enable calls to be made easily from mobiles.

Ofcom should also reconsider the practice of charging for numbers

- 3.24 After the migration to IP the removal of local dialling will allow Ofcom to introduce overlay numbers for any areas where numbers are exhausted. However the ability to manage numbers more effectively will make these occurrences much rarer. Ofcom therefore will not need to charge for numbers in order to conserve them.
- 3.25 We believe that this practice should now be abolished. Ofcom reviewed this policy in 2016 and has not yet published its conclusions. It is clear to us that charging for numbers, the majority of which may be in use or are part of number blocks where some numbers are allocated, does not ensure that numbers are used more efficiently and can create negative unintended consequences.⁸
- 3.26 As discussed above, Ofcom should perform a review of which areas they believe to be at risk of number exhaustion prior to 2025. If there are still areas considered at risk then Ofcom and industry should work together to manage them until we migrate onto IP. Rather than continuing to charge the whole of industry on an annual basis for these areas and many more that are no longer at risk.

We should allow consumers to migrate their numbers out of area on IP services

- 3.27 With IP it will be possible to host numbers "out of area" and BT believes that consumers should be able to take advantage of this flexibility. Numbers hosted on IP networks should be allowed to migrate out of area if that's the consumer's wish. This can create consumer benefits of being able to have a "number for life", meaning that they won't need to update all their contacts when moving house.

⁸ https://www.ofcom.org.uk/__data/assets/pdf_file/0025/99070/BT.pdf

3.28 Allowing numbers to migrate out of area will not significantly hasten the erosion of location significance, given that it is estimated people only move home on average every 23 years⁹ and over 70% of home movers do not move further than 20 miles¹⁰.

3.29 Ofcom states that the Numbering Plan currently allows numbers to be used out of area. This occurs in a caveat to Section B3.1.1 as follows:

B3.1.1 A Geographic Number shall be assigned only to a Subscriber whose Network Termination Point is physically located within the geographic area associated with that number (having regard to the relevant Geographic Area Code), unless:

a. the Subscriber has requested a Geographic Number that includes the relevant Geographic Area Code; and

b. charges for calls to that Geographic Number remain consistent with charges for calls to other Geographic Numbers that include the same Geographic Area Code.

3.30 This section however only refers to numbers being assigned, not migrated. Ofcom should amend it so it explicitly states that consumers should be allowed to migrate their existing numbers to a different area if they wish.

3.31 The principle that charges should remain consistent with those for other numbers that include the same Geographic Area Code is important and should remain within the Numbering Plan. Though given that 01 and 02 geographic number charges are now harmonised this condition is redundant.

3.32 We do not consider that there would be any material disadvantage to consumers receiving calls from out of area numbers. Although sometimes it may be helpful to identify the area a call is coming from, given most calls come from mobiles, consumers are used to not having a geographic location presented to them.

3.33 Secondly, when making a call it is now the case that all 01 and 02 numbers are charged at the same rate to the caller. So there is little value in knowing the location of the call recipient as long as it is a domestic call.

3.34 This ability to migrate a number out of area should be optional for consumers and CPs. A consumer should not be forced to take their number with them if they move and would prefer to have an area attached to their new local area.

3.35 During the period of transition to IP, PSTN operators should not be forced to import out of area numbers (which would be extremely difficult and in some areas impossible due to decode restrictions). This may restrict consumers' choice as they won't be able to revert back to a PSTN service from IP if they have moved out of area unless they give up their number.

⁹ [Zoopla - How often do we move house in Britain?](#)

¹⁰ [Addicted to property - How far will British homeowners move house?](#)

- 3.36 Once the migration to IP is complete in 2025, Ofcom can review how out of area numbers function and the associated porting arrangements, when it may make sense to regulate for the porting of these numbers.
- 3.37 Ofcom should also not allow UK geographic numbers to be migrated abroad¹¹ (i.e. numbers shouldn't be ported to an operator outside the UK) as it will be very difficult to monitor compliance with the numbering regulations or take action for non-compliance.

Numbers should continue to be allocated on a geographic basis where possible

- 3.38 Although we recognise the potential benefits from allowing customers to take their numbers with them when they move, the use case for being allocated a new number 'out of area' is different. These are more likely to be requested by businesses rather than residential consumers.
- 3.39 Whilst there may be legitimate reasons why a business might want to be allocated an out of area number, we think that – on balance – it is better for consumers that numbers continue to be allocated on a geographic basis where possible.
- 3.40 There are some risks with allocating numbers out of area, in particular the risk of number scarcity if a mass of businesses decided at the same time to obtain numbers from one area. Ofcom will need to be wary of the potential for this to occur and therefore should monitor the practice so that they can introduce guidance if necessary to prevent number scarcity.
- 3.41 Whilst the PSTN is still in use, allocating numbers out of area can present routing and billing issues. Currently these processes are based on assuming exchange locations relate to the geographic area codes of the numbers. Once we've moved to IP and new routing and billing systems are in place, there will no longer be an issue. However, during the transition period allocating numbers out of area does create complexity.
- 3.42 Therefore Ofcom is right to not seek to hasten the erosion of location significance within numbers. For as long as the PSTN is still in use, "in area" allocation should remain the general policy to maintain a loose alignment across PSTN and IP. CPs offering IP services should attempt to provide "in area" numbers. If numbers are not available, then numbers from an adjacent area could be used. Ofcom should only continue to permit the out of area allocation of numbers when the conditions they have set out are met, so as to minimise confusion for consumers.

¹¹ Including, Jersey, Guernsey and the Isle of Man.

3.43 It is likely that providers of IP voice services will define area geographies inconsistently as there is no common frame of reference. Ofcom should therefore include a simple frame of reference within the Numbering Plan. The easiest way to do this would be to develop the table in Appendix A to include a mapping of relevant postcodes. Then CPs could allocate numbers from the appropriate range based on a consumer's address.

Ofcom should provide further guidance around converged numbering now

- 3.44 In the consultation document Ofcom outlines the distinction between fixed and mobile services in the Numbering Plan and states that these services have become increasingly blurred. It refers to the difference in termination rates, (it is also the case that origination rates to 0800 numbers are different) and the distortions that this could create if the distinctions were to be removed from the Numbering Plan. Therefore Ofcom is not reviewing it as part of this consultation.
- 3.45 We agree that there is still a significant distinction between fixed and mobile services, although we expect that this distinction will erode quickly. Furthermore the switching and porting processes that apply on fixed and mobile services remain distinct and it is not clear how consumers should switch if they have a converged service.
- 3.46 However this is the reason why Ofcom should review the distinction within the Numbering Plan, not to remove it, but to ensure that it is clear and appropriate. CPs need clarity on which origination and termination rates to apply, as well as how porting processes should work to prevent confusion when dealing with numbers on converged devices.
- 3.47 Converged numbering can deliver consumer benefits such as allowing a consumer to have just one number attached to both their mobile and fixed line devices, or allowing a consumer to continue a call as it switches between fixed and mobile networks uninterrupted.
- 3.48 It is likely we'll see an increasing number of products launched across industry over the next few years to realise the potential of these benefits. It is imperative that policies and processes are amended to facilitate this growth.
- 3.49 Ofcom's regulations already allow calls to fixed numbers to be terminated on mobile devices and vice-versa, but without any clarity on which termination or origination rates should apply. This will cause issues and could lead to arbitrage risks if for example CPs are able to charge mobile termination rates for calls that terminate on a fixed device.
- 3.50 Ofcom needs to take this opportunity to consult with industry on the distinction between mobile and fixed numbers, and how they should be treated in terms of tariffing and porting if they are used outside of their main function.

4 Non-Geographic Numbering

- 4.1 Non-geographic numbering covers a wide range of different call and service types. Given the developments in the industry over recent years and consumers' changing usage of telephone calls we support Ofcom's review of these number ranges to ensure that the role they play is still required, and that consumers are clear in the charges they will face when making calls.
- 4.2 Ofcom has recently taken action on 118 and 070 numbers to reduce confusion and bill shock for consumers, which BT has supported.
- 4.3 We think that Ofcom should now take a holistic view across all number ranges to consider whether the Numbering Plan could be further simplified.
- 4.4 As part of this, Ofcom should consider the Isle of Man mobile number range, and the numbers utilised in Jersey and Guernsey. Ofcom states in the consultation that "*Many providers [...] treat calls to mobile numbers allocated to providers in the Channel Islands and Isle of Man as international calls*". We agree that this risks creating harm to consumers who could face higher charges than they expect for making calls to numbers based in these areas.
- 4.5 Additionally there is more Ofcom can do that will allow CPs to simplify their retail pricing. Complex and confusing pricing structures are often the result of CPs having to take precautions to prevent misuse and abuse of their call packages.
- 4.6 In particular Ofcom should act to prevent Artificial Inflation of Traffic (AIT) and the threat to consumers caused by 'cash for calls'. This is when call terminators incentivise customers to use their bundles to make free calls so they can profit from the termination rate. This leads to CPs being reluctant to bundle calls where there is an arbitrage risk.
- 4.7 Ofcom should ban revenue sharing with callers on all number ranges as they have done with the 03 range to encourage CPs to remove some of these pricing discrepancies resulting in lower costs and clarity of charges for consumers.
- 4.8 In order to prevent confusion for CPs as industry migrates over to IP services Ofcom should look to remove any ambiguity around the 03 range from the Numbering Plan. The 033x range is generally used for providing IP services but the Numbering Plan doesn't specify the services they can provide, merely the charges that may apply. Ofcom also needs to consider whether additional resource will be required for IP services as they grow in number, and whether once on IP an 03 non-geographic number is treated any differently to an 01 or 02 non-geographic number, particularly with regards to porting.

The 084 and 087 ranges are already in decline

- 4.9 084 and 087 number ranges can have service charges of up to 7ppm and 13ppm respectively. In addition to the service charge consumers usually have to pay an access charge set by their provider. The ranges serve two functions i) they generate a small amount of revenue in order to fund the telephone service provided, and ii) they encourage end users to use alternative means of communications, such as online that are cheaper to deliver.
- 4.10 Without recourse to these numbers such services would either have to fund the cost of answering calls from their overall budget, or they would have to stop providing the call service altogether.
- 4.11 It is already the case that many of the types of services that used the 084 and 087 ranges no longer do so. For example, the UK Government has issued guidance to all of its departments and public bodies to avoid using these ranges in most circumstances and where they are still used to also provide 034/037 alongside them as preferred numbers¹². It has also legislated to ensure that these ranges are not used for customer services¹³. Ofgem has declared that energy providers should not use such ranges and doing so may breach their regulations¹⁴.
- 4.12 As a result of these services either migrating to 034/037 or closing completely the use of 084 and 087 is in decline. We have seen call volumes to these ranges falling by [8<] between 2017 and 2018.

Further research is needed to understand the magnitude of the issues related to these ranges

- 4.13 Although service providers have to publish call charges alongside their number, we accept that it may not always be clear to consumers what access charges apply, and how long the call will be and therefore what the total cost of calling a number is.
- 4.14 Ofcom's research¹⁵ is welcome and the verbatim comments show that customers can be confused by these pricing structures. We do not dispute this assertion, but it is not clear from Ofcom's research just how big an issue this is.
- 4.15 We urge Ofcom to commission quantitative research to further understand the potential impact on consumers who use these number ranges before making a policy decision on the future of 084 and 087.
- 4.16 Some of the end users who actually call 084 and 087 services most frequently are businesses who do so on a regular basis and therefore are more likely to fully understand the costs of these services.

¹² <https://www.gov.uk/government/publications/hmg-guidance-for-customer-service-lines>

¹³ <https://www.legislation.gov.uk/ukxi/2013/3134/regulation/41/made>

¹⁴ https://www.ofgem.gov.uk/sites/default/files/docs/2015/04/telephone_services_open_letter_v7.pdf

¹⁵ [Ofcom's future telephone numbering research](#)

4.17 If Ofcom's concerns relate to individuals experiencing harm then it would perhaps be more sensible to restrict the types of services provided on these ranges so that business users can still continue to benefit from them.

Ofcom needs to understand why service providers still use these numbers

4.18 Understanding the nature of the service providers who use these numbers will help foresee what would happen if the 084 and 087 ranges were closed, which might lead to unintended consequences.

4.19 A rush to close these number ranges could force such services to migrate to other revenue generating ranges, namely the 09 number range. This could cause much more confusion and consumer harm as service providers may take the opportunity to increase their prices above the caps that apply to 084 and 087 closer to the much higher 09 cap.

4.20 Ofcom's existing research suggests that consumers understand that 09 numbers are premium rate because they are used to seeing them used for TV voting and similar activities. If 084 and 087 service providers migrated to these numbers whilst maintaining their lower charges this might create confusion as the 09 range becomes used for a wider variety of activities and therefore clarity over the charges is reduced.

4.21 BT's data shows [✂]

4.22 Ofcom should explore these use cases further by consulting directly with service providers in order to gain a better understanding of which services could not be delivered via alternative means.

4.23 Ofcom's consultation suggests that alternative micropayment mechanisms could replace the 084 and 087 number ranges. We do not consider this to be realistic as the micropayment system is not a mechanism designed to generate revenues above and beyond those required to fund the call service. They are not a means of making a donation or a payment for another service.

4.24 We believe that it would be unrealistic for providers of call services to obtain funding from alternative micropayment mechanisms from their callers. The key to using phone bills to pay for phone calls is that the payment for the service is directly linked to the use of it. Ofcom's alternative suggestions such as credit or debit cards or PayPal would require service providers to have a separate mechanism for collecting the payments running alongside the phone calls. It is difficult to see this occurring for payments that often would amount to a few pence, but if it did it would be incredibly inefficient for both the service provider and the customer.

- 4.25 It is for this reason that the 084 and 087 number ranges still support some services. Removing the number ranges would force them to rethink their funding and service models which would take time. Ofcom should not look to close these ranges prior to 2025 which would provide sufficient notice to allow these services to find alternative funding mechanisms that don't rely on them moving to the 09 number range.

There are actions Ofcom can take now to reduce any consumer harm caused by premium rate numbers

- 4.26 The biggest difference Ofcom could make now to reduce the issues relating to premium rate numbers is by regulating Information, Connection and Signposting Services (ICSS) using the 084, 087 and 09 ranges more effectively.
- 4.27 We do not believe that such services add value to consumers. The rationale for these services is that they provide customers with easy routes to find the numbers that they require. In practice, this is not what we observe. These services tend to use premium rate numbers to charge callers to only forward their calls onto freephone numbers that are easily accessible online. They tend to pay internet search engines to ensure their numbers appear at the top of searches.
- 4.28 Although there is regulation enforced by the Payphone Services Authority (PSA) to ensure that the charges are explained on ICSS's sites, callers usually do not click through to these and dial the number that appears on their search engine. It's therefore likely that they assume that this number belongs to the entity they wish to call, and is therefore free or low charge, causing them financial harm.
- 4.29 This results in instances of bill shock which could be eradicated if such services were banned. Here are just a few examples of BT customers who have been caught out by these practices:
- [redacted]
- 4.30 Ofcom should review whether such services provide any benefit to consumers and balance this questionable legitimacy as a service against the clear evidence of harm in this sector. Ofcom should not rely on the current PSA regulations to minimise consumer harm resulting from ICSS. We believe that it is essential for Ofcom to consider whether ICSS should be subject to strict price caps by excluding them from using the premium rate number ranges, or banned altogether.

- 4.31 If it is deemed that there is some significant value in these services then Ofcom needs to work with the PSA to ensure they have the powers to strengthen the rules in place to prevent the most egregious uses of these services.
- 4.32 Ofcom can also remove some of the confusion that occurs when a service provider requests a tariff change. This means that the CP that owns the number block has to change the tariff for the whole block. This results in other providers on that block who have perhaps ported their numbers elsewhere charging a different rate without their knowledge, thus their advertising is incorrect and consumers may be paying more than expected. This is only a niche issue however it is simple to fix. Ofcom should insist that tariff changes must be advertised to all exported number range holders and that they are only allowed to make the change when all service providers affected agree.

Ofcom needs to prevent Artificial Inflation of Traffic (AIT) to encourage CPs to simplify their tariffs

- 4.33 BT includes 0845 and 0870 within its fixed line call bundles. Here we see the practice of AIT where companies encourage calls to these numbers by offering incentives such as cashback or vouchers. We estimate this costs us significant amounts each year, and requires significant work to identify and challenge AIT as it is not currently prohibited by regulation.
- 4.34 Whilst the threat of AIT remains, it is impractical to consider whether further number ranges could be added to bundles in order to present clarity to customers.
- 4.35 Ofcom has banned revenue sharing with callers on the 03 number range as it has recognised that the potential for even a small arbitrage in the termination rates could be taken advantage of.¹⁶
- 4.36 Ofcom has regulated the termination rates on 070 from 1 October 2019 in order to provide clarity for consumers, but there is a threat of AIT that means there will be a risk in bundling calls to these numbers. Although Ofcom has specified that revenue may not be shared with “end-users”, in the case of 070 this refers to the party receiving the calls, not the one making the call.¹⁷
- 4.37 We think that Ofcom should ban revenue sharing with callers (i.e. ‘cash for calls’) across all ranges. There is no justification for somebody to be paid to make a phone call. At best it incentivises extra network traffic that otherwise would not exist, and at worst it can defraud communications companies of millions of pounds.
- 4.38 They also need to enforce this regulation effectively to ensure that AIT doesn’t continue to exist even when revenue sharing with callers is banned.

¹⁶ [Ofcom statement - The 03 Number Range - revenue sharing](#)

¹⁷ https://www.ofcom.org.uk/__data/assets/pdf_file/0024/121839/070-final-statement.pdf

Ofcom could allow CPs to apply caps to premium numbers to protect consumers against harm

- 4.39 The Financial Conduct Authority (FCA) implemented the new Payment Services Directive (PSD2) on 13 January 2018. This directive means that CPs that do not register to become a Payment Services Provider face limits on the service charges that they can pass on to their customers of £40 a call, and £240 a month. Becoming a Payment Services Provider will result in onerous and costly obligations that may not be viable, particularly for smaller CPs.
- 4.40 These limits will reduce the potential for consumers to suffer from bill shock and therefore BT is not opposed in principle to applying them in order to protect consumer interests.
- 4.41 CPs therefore need to be able to prevent consumers from breaching these limits set by the FCA. If they are not able to do so this could mean they have to refund callers, whilst still passing through the service charge to the service provider. This will make them not only susceptible to unrecoverable costs, but also artificially inflated traffic and fraudulent activity intended to take advantage of these limits.
- 4.42 However it is unclear whether CPs can actively prevent consumers from breaching these limits given the regulation present in the General Conditions – GC B4.2

Regulated Providers shall ensure, where technically and economically feasible and subject to Condition C6.6, that End-Users in any part of the European Union are able to:

(a) access and use those Non-Geographic Numbers which the Regulated Provider Adopts; and

(b) access all Telephone Numbers provided in the European Union, regardless of the technological devices used by the operator, including those in the National Telephone Numbering Plan and Universal International Freephone Numbers (UIFN).

- 4.43 We agree with Ofcom that it is extremely important to protect consumers from bill shock and harm. Therefore Ofcom should produce a note to clarify that “economically feasible” does not include calls where the CP is unable to recover the costs of the call from the consumer. Thus giving CPs the option to block access to premium rate numbers when callers go above and beyond the charges set by the FCA.
- 4.44 Such a clarification would not only avoid breaches of both the General Conditions and the PSD2, but also protect consumers at the same time.

Ofcom can simplify the number ranges further by dealing with inconsistencies within them

- 4.45 In the consultation document Ofcom refers to pricing anomalies caused by CPs treating calls to mobile numbers in the Isle of Man (IoM) and the Channel Islands as international calls and the confusion and bill shock that this can cause. Even when CPs don't treat these calls as international it can be the case that they aren't treated in

line with calls to other 07 numbers. The same can also be true of calls to fixed lines in these jurisdictions.

- 4.46 Yet Ofcom does not propose any modifications to the ranges used by IoM, and the Channel Islands within either the 01 or 07 ranges to introduce clarity for customers. Ofcom should not miss this opportunity to standardise charges on these ranges.
- 4.47 The reason some CPs treat such calls differently is because the IoM, Jersey and Guernsey termination rates are not set by Ofcom as they sit outside the UK, despite this the number ranges are allocated from the UK Numbering Plan. This results in termination rates being far higher than in the UK (e.g. up to 10ppm rather than 0.479ppm for mobile) and therefore UK operators cannot afford to bundle calls to these number ranges as they would with other numbers from the same ranges. This is what causes the confusion to consumers.
- 4.48 Ofcom should continue to apply pressure and work with the regulators within these jurisdictions to bring the termination rates down towards that applied within the UK. If this is unsuccessful then Ofcom should consider allocating a separate, distinct number range for these numbers if they do not apply the same termination rates as for all other 01 or 07 numbers respectively. Then either these operators will bring their termination rates down in line with the UK termination rate allowing UK operators to bundle such calls, or it will be clear to consumers that calls to these ranges fall outside their bundles and packages.

Ofcom should clarify the purpose of non-geographic IP number ranges

- 4.49 It is currently not clear in the Numbering Plan what 033x numbers should be used for (as opposed to 030/034/037 where it is specified). The industry practice is to use them for IP services where the consumer does not wish to have a geographic number. The tariffing structure means they function in the same way as a geographic 01 or 02 number for consumers, without being tied to an area.
- 4.50 Given the potential for IP to remove the location restrictions relating to geographic numbers it is not clear if there will remain any distinction within the Numbering Plan at all between these number ranges. If Ofcom believes that these numbers fulfil a distinct purpose or there should be any restrictions on them (such as not being used for residential purposes) then they should specify this to ensure that CPs continue to allocate them appropriately.
- 4.51 If 033 is intended to continue to provide IP services Ofcom needs to assess whether any further resource is required as more services are delivered via IP or whether it is the case that 01 and 02 numbers are expected to deliver the additional demand for IP services. This clarity would be beneficial to CPs when allocating numbers.
- 4.52 This has implications for porting arrangements, as non-geographic and geographic numbers currently use different port processes (and 03 cannot port onto the PSTN for example). Consumers who have 03 numbers may well expect switching and porting arrangements to be in line with those for 01 and 02.

5 Annex 1 – BT’s responses to Ofcom’s questions

2.1	We have set out developments in voice telephone services that are important in shaping our review of the future use of numbers to promote consumer confidence. Do you agree that these are the key considerations? Do you have any comments on our analysis of these developments? Are there any other developments or considerations that should be part of shaping this review, and if so, in what way?	Please refer to Section 2
3.1	What are your thoughts on the ability to dial local numbers from a landline without the area code? Do you think the local dialling facility has value?	Please refer to paragraphs 3.4-3.5
3.2	Do you think local dialling should be closed on an area by area basis as required to increase number supply or across the whole of the UK at the same time? Why do you think this?	Please refer to paragraphs 3.14-3.23
3.3	Do you have any views on allowing telecoms providers to make individual decisions on whether to provide customers with the ability to dial local numbers from a landline without the area code?	Please refer to paragraphs 3.9-3.13
3.4	For telecoms providers, what are your thoughts on the ability to implement the closing of local dialling in all UK area codes simultaneously?	Please refer to paragraphs 3.14-3.23
3.5	For telecoms providers, what are your views on the technical feasibility of providing local dialling to customers when offering an IP-based voice service?	Please refer to paragraphs 3.6-3.8
3.6	What do you consider are the important factors about geographic numbers? For example, is it the information they provide about the caller/called party? Is it familiarity, trust or confidence in call cost?	Please refer to paragraphs 3.27-3.43
3.7	What are your thoughts on retaining area codes in geographic numbers? Do you think location significance in geographic numbers has value and should be preserved? If so, why? How might your view change over time?	Please refer to paragraphs 3.32-3.35
4.1	What are your thoughts about 084 and 087 numbers? What are the benefits and/or disadvantages of contacting an organisation by calling an 084 or 087 number? Can you tell us of any experience you’ve had calling these numbers? Have you expressly chosen not to call a service that uses these numbers? If so, what led to that decision and how did you choose to make contact instead (if you did)?	Please refer to Section 4