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Geographic numbers – safeguarding the future of geographic numbers

We would welcome any comments on the contents of this document which is also available electronically at <http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Consultativeresponses/>

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EXECUTIVE SUMMARY

Ofcom's September 2011 statement and further consultation about geographic numbers confirms that it will:-

- close local dialling, i.e. require the full national number to be dialled, in four-digit code areas with the most severe number shortages
- trial the allocation of blocks of 100 numbers rather than blocks of 1000 numbers in five-digit code areas to make existing supplies last longer
- initiate a number charging pilot, with range-holders paying for number ranges allocated to them in areas of the greatest scarcity.

Closing local dialling

Ofcom plans to establish an industry forum to oversee the implementation of the closure of local dialling in the relevant areas. If past experience is anything to go by, the funding of any industry-wide campaign is bound to be contentious. In order to promote constructive discussion, Ofcom should look again at the merits of a small percentage of the revenue raised through the number charging pilot, should it go ahead, being used to fund it.

100-number block allocations

For a modest cost, BT's networks and platforms could handle up to 10,000 numbers in blocks of 100 in the eleven five digit code areas, if implemented in the manner proposed by Ofcom. As 100-number blocks cannot be supported economically on all of our switches, any extension would have to be considered individually and consulted upon. In addition, we ask Ofcom to consider whether area codes with extended linked numbering schemes (ELNS) (these are areas which share the same dialling code but are discrete charge group areas differentiated by the first digit of the local number) might be starting to experience number shortages, and, if so, whether 100-number block allocation might play a helpful role in conserving number blocks.

Number charging pilot

We are still not convinced that Ofcom's number charging proposals would materially affect CPs' behaviour for the reasons we set out in our previous response. It is still not too late for Ofcom to press the pause button. Nonetheless, we make constructive suggestions in answer to Ofcom's questions which if adopted would make the framework as efficient and equitable as possible.

If number charging is to go ahead, we agree that it should be in the form of a pilot with very clear success criteria. We think that these criteria need to be developed with industry as soon as possible and the conclusions should then be set out in Ofcom's statement.

BT's response to Ofcom's September 2011 consultation - Geographic telephone numbers – safeguarding the future of geographic numbers

We believe that the areas that Ofcom proposes to include in the pilot stretch the definition of scarcity, the concept that underpins Ofcom's rationale for charging. The predicted exhaustion dates are well over ten years away in many areas, and that is before Ofcom introduces administrative measures aimed at reducing pressure on number blocks. We suggest how to tighten the definition of scarcity (in answer to question 6). We also ask whether some of the areas where number blocks are more plentiful should be replaced in the pilot by ELNS areas in which number block supply appears to us to be more at risk.

Our answers to Ofcom's questions also set out how we think the pilot could be introduced with least impact overall and in particular how costs of WLR and exported numbers could be most efficiently recovered. As such, we support the discussion of Ofcom's new Option 5 which removes the need for CPs to bill each other for exported and WLR numbers, Ofcom instead applying a discount on the number charging invoice at source to account for the use by third parties of a CP's allocation. However, this Option gives rise to a further problem, as those CPs gaining numbers in other CPs' ranges would not pay for them. We offer up alternative ways in which this problem could be eliminated or reduced to make Option 5 more equitable.

If these measures are adopted, we believe it would reduce implementation costs to the lower end of the estimate we gave in the confidential version of our last response or below it.

Introduction

Ofcom's September 2011 statement and further consultation about geographic numbers confirms that it will:-

- require the full national number to be dialled in four-digit code areas with the most severe number shortages
- trial the allocation of blocks of 100 numbers rather than blocks of 1000 numbers in five-digit code areas to make existing supplies last longer
- initiate a number charging pilot, with range-holders paying for number ranges allocated to them in areas of the greatest scarcity.

In this response, we answer Ofcom's specific questions, make suggestions and comment more widely.

Closing local dialling

We are supportive of Ofcom's decision to allow more number blocks to become available by requiring the full national number to be dialled (closing local dialling) in four-digit code areas with the most severe number shortages. We also note and support the decision to follow that up by the introduction of an overlay code if more numbers are needed subsequently. We recognise that Ofcom anticipates that number blocks within the 01202 code area for Bournemouth may run out as soon as 2012, but that no area should require an overlay code before 2020. We shall participate actively in the industry forum that Ofcom has established to oversee the implementation of the national dialling requirement.

Whilst each CP will doubtlessly inform its own customers directly affected by the closure of local dialling, the proposed remit of the forum includes the establishment of an industry-wide communications campaign. Whilst Ofcom does not invite comments, we do have one suggestion about funding arrangements to make at this stage.

If past experience is anything to go by, the funding of any industry-wide campaign is bound to be contentious. Indeed, there may be negativity around the campaign itself because of funding uncertainties. Objections of course may be well-founded and genuine, especially given the localised nature of the measures, but it may be difficult to separate those out from nervousness around what companies might be expected to contribute.

Our suggestion, in order to promote constructive discussion, in the interests of local people, would be for Ofcom to look again at a part of the proposal made by C&WW in its response to the last consultation - that a small percentage of the revenue raised through the number charging pilot be used to fund any cross-industry campaign deemed necessary. Whilst Ofcom has explained why it was against C&WW's wider proposal, we think that this aspect within it merits reconsideration.

Ofcom noted that passing all the revenue to the Treasury would benefit all tax payers. We think whatever the merits of this argument, using a small percentage of the money to fund national number dialling awareness campaigns where necessary would benefit all citizens affected - taxpayers and non-taxpayers alike.

At paragraph 6.186, Ofcom states that “using the revenues to fund communications campaigns associated with supply measures or other industry costs could reduce the incentive for individual CPs to minimise these costs”. Ofcom does not explain why it thinks this and we cannot understand how this measure alone could possibly incentivise the inefficient use of numbers. Collecting small amounts of money from dozens of CPs would seem to be highly inefficient administratively. Only collecting money from larger CPs would be inequitable, especially as there is an opportunity to collect the money efficiently and fairly, via the number charge (assuming the pilot goes ahead).

We do not see a legal impediment to this proposal. Those CPs with the most numbers would still be paying the most and all rangeholders would efficiently contribute proportionally to their number use. We do not consider that the financial provisions of the Office of Communications Act 2002 and the Communications Act 2003 would necessarily bar what is proposed. To the extent that the proposal is not for an auction of numbers, we do not believe that there should be an assumption that the charges levied have to go automatically into the Consolidated Fund. Rather, if the campaign was an Ofcom initiative, then the cost could be an Ofcom expense which could be met from the charges levied by Ofcom.

This response now focuses on the issues underlying Ofcom’s specific questions.

100-number block allocations

Question 1: Do you agree with our proposal to allocate up to 10,000 numbers in blocks of 100 numbers (i.e. 100 x 100-number blocks) in the following 11 five-digit area codes - Appleby (017683); Gosforth (019467); Grange over Sands (015395); Hawkshead (015394); Hornby (015242); Keswick (017687); Langholm (013873); Pooley Bridge (017684); Raughton Head (016974); Sedbergh (015396) and Wigton (016973)?

This proposal is very much in line with BT’s recommendation and as such we fully support it. It allows Ofcom to trial the use of 100-number blocks in a proportionate way. If successful, it also provides a neat solution to number shortages in these eleven areas. It does not directly impact customers and is far less disruptive to BT and almost certainly to the rest of industry than the proposals set out in Ofcom’s November 2010 consultation, which involved merging four and five digit code areas.

Question 2 (for CPs): Would it be feasible for your network to handle up to 10,000 numbers allocated in blocks of 100 numbers in the 11 five-digit area codes listed in Question 1?

BT's networks and platforms could handle up to 10,000 numbers in blocks of 100 in these eleven areas, implemented in the manner proposed by Ofcom. However, we see no pressing need, for the trial, to make so many 100-number blocks available right away. Given that these are envisaged to be used in low population areas, they should be viewed in the same way as 1k number blocks in other areas. So if for example thirty 1k blocks were expected to suffice in a 1k number block area for three years, then we would expect thirty 100-number blocks to suffice in that area. We would have thought that three 1k blocks, in the same 10k block if possible, should be set aside for the pilot in each area, ie eleven times thirty 100-number blocks. We support Ofcom's proposal to only open one 1k block at a time for 100-number block allocation (paras 5.50 and 5.66).

As we indicated in our previous response, 100-number blocks cannot be supported economically on all of our switches. Whilst they can be supported to the extent Ofcom proposes in these eleven areas, this should not be seen to signify that the technique could automatically be extended. Any extension would have to be considered individually and consulted upon.

Question 3 (for CPs): What are your predicted costs and timescale requirements for implementing the necessary changes in your network switches to support routing to blocks of 100 numbers in the 11 five-digit area codes listed in Question 1?

We believe that we could support 100-number blocks in these eleven areas in the manner proposed by Ofcom by mid-2012. It would cost [£] to deliver the tools to achieve it.

Number charging pilot

We are still not convinced that Ofcom's number charging proposals would materially affect CPs' behaviour for the reasons we set out in our previous response. It is still not too late for Ofcom to press the pause button. Nonetheless, we make constructive suggestions which if adopted would make the framework as efficient and equitable as possible.

Question 4: Do you agree that the pilot for geographic number charges should be introduced six months after the date the final statement is published? If not, please state your preferred implementation period and reasons.

In para 6.20, Ofcom states that CPs can start planning their approach to charging for numbers before the final Statement is produced. Whilst CPs can start to consider what the issues might be and how they might be addressed, no CP will be able to

start to put plans properly in place. For example, we don't know whether the pilot will go ahead and if it does, which of the five cost recovery options for ported/WLR numbers would be pursued (or indeed if a further variant will emerge). CPs will certainly not start to spend money until there is a clear set of requirements. For example, setting up appropriate inter-CP billing arrangements would be extremely time consuming and costly and at this stage extremely speculative.

We would suggest that should Ofcom proceed with the pilot, to keep things simple:-

- charges should start to accrue on 1 April. We would rather avoid having to deal with an initial part-year period
- no less than six months notice of charging and the areas concerned should be given
- charges should be billed in arrears on an annual basis
- an annual snapshot should be taken and if a block is held on a given date, the annual charge should be applied. Daily rate accrual would seem to be complex and an embellishment that would add little value
- any CP wanting to apply for a discount (if Option 5 is adopted) would need to calculate the number of exported and WLR numbers on that date and supply the figures to Ofcom
- if the recovery rate for exported and WLR numbers relied on actual utilisation rates – see our answer to Q8:–
 - Ofcom would have to work with industry to agree how to calculate utilisation
 - CPs would have to provide to Ofcom each year their utilisation on the given date in the areas concerned.

The lengthier the period between the announcement of the areas covered by charging and the date from which charges would start to accrue, the greater the lead time for CPs to return unused numbering to Ofcom before the pilot starts. A decent notice period would help avoid a bow-wave of activity when Ofcom declares the areas covered. Any hand-back could be spread over a lengthier period, allowing better management of resource and potentially helping to avoid disputes.

We don't think that a longer lead-in to charging would be material in terms of affecting demand for numbers. Numbers are a long term commitment, and to the extent that charging might reduce demand, a clear signal that charging will be introduced from a certain date would be as strong a disincentive to apply for numbers as the actual introduction of the charge itself. Certainly, we think the benefits would outweigh the drawbacks.

Question 5: Do you agree that we should introduce charges in a pilot scheme initially? If not, please state your preferred approach and reasons.

If number charging is to go ahead, we agree that it should be in the form of a pilot with very clear success criteria. We think that these criteria need to be developed

with industry as soon as possible and the conclusions should then be set out in Ofcom's statement.

Ofcom's stated intention even, in the longer term, is only to charge in areas where there are significant shortages. Given the areas that the pilot would cover, the difference between pilot and implementation appears blurred. In point of fact, we would argue that the pilot goes beyond areas of scarcity. In the last consultation, Ofcom defined scarcity as areas in which it had fewer than 100 1k blocks available for allocation. Now, Ofcom seems disappointingly to be pushing ahead with a pilot in the thirty areas with the fewest available blocks – some of these appear to have over 180 blocks available – over 80% above that scarcity threshold. The only difference between the proposed pilot and implementation would seem to be a commitment to review the pilot.

Question 6: Do you agree that the revised pilot scheme should capture around 30 area codes with the fewest number blocks remaining available to allocate? If not, please state your preferred threshold and reasons.

As described above, Ofcom initially proposed charging in areas where it had fewer than a hundred 1k blocks available – a measure of scarcity that we thought was not unreasonable. Following the numbering audit, the number of such areas fell into single figures from over 50 (we note that original figure included the eleven five digit code areas, now being dealt with separately by way of 100-number block allocation).

Ofcom is now proposing charging in 30 areas, in order to push ahead with a pilot of what it considers to be a meaningful size. On the evidence presented by Ofcom, we certainly think it should be no more than 30. Looking at Ofcom's table at Figure A6.1 of the September consultation, the predicted exhaustion dates are well over ten years away in many areas.

We would suggest that charging should only be piloted where Ofcom predicts number exhaustion within a particular time frame, even if this reduces slightly the size of the pilot. Given that:-

- this would only be a pilot rather than a rolled out scheme and
- Ofcom has yet to introduce the proposed reservation stage in the allocation process and a more rigorous application process,

we think the pilot (or any permanent scheme) might reasonably be restricted to areas due to exhaust within an 8 year time horizon, currently up to the end of 2019.

If Ofcom were to adopt this criterion, this would put 15 areas listed in Figure A6.1 into the charging regime [X].

However, looking at Ofcom's numbering database on its web-site (as at 25 October 2010), the time horizon may also capture some extended linked numbering scheme (ELNS) areas. Some ELNS areas appear to be in shorter supply than many of the areas in Ofcom's top 50, as listed in Figure A6.1.

ELNS areas share the same dialling code but are discrete areas differentiated by the first digit of the local number. Each is a separate charge group too. Examples include:-

- 01430
 - 2-5 signify North Cave
 - 6-9 signify Market Weighton.
- 01434
 - 2, 4 and 9 signify Bellingham (which featured as an area of shortage in Ofcom's previous consultation)
 - 3 and 5 signify Haltwhistle and
 - 6,7 and 8 signify Hexham.

Unless Ofcom has blocks pledged for return that we cannot see, or whether Ofcom's utilisation data suggests that it does not anticipate demand in these areas, which we think is unlikely, we wonder whether some of these, where Ofcom has the fewest spare blocks, might replace other code areas from Ofcom's published top 50 in any number charging pilot.

Area	Number of spare 1k blocks
○ Spilsby 01507 2 and 5	82
○ Stanhope, 01388 2 and 5	96
○ Haltwhistle, 01434 3 and 5	104
○ Barrow in Furness, 01229 2, 4, 5, 6 and 8	121
○ Harrogate, 01423 2, 5-8	121
○ Louth 01507 3, 6 and 7	128
○ Haverfordwest, 01437 6-9	134

Alternatively, some or all of these might be suitable for allocation at the 100 number level [X]. Ofcom could consider charging for them in addition to the code areas in Fig A6.1 due to exhaust before the end of 2019, whilst the 100 number trial in five digit code areas is being assessed, removing them from charging in due course if they can be treated that way.

We accept that the pilot needs to be of a meaningful size if it were to go ahead and as such would suggest a minimum pilot size of 20 code areas. Our proposal would include 22 areas [X].

We recognise that ELNS areas could be addressed simply by merging the areas so that numbers have no geographic significance **within** the area. However, in the same way that Ofcom has rightly concluded that the five digit code areas should not be merged, we don't think these should be either – there would be significant consequences for customers in terms of degradation of the location integrity of their code area and changes to the price they pay for calls.

Question 7 (for CPs): Are you able to provide an estimate of the administrative costs of implementing number charging? Which aspects generate the most significant administrative costs for CPs?

See answer to question 8 below.

Question 8: Which option for dealing with number charges for ported and WLR numbers do you prefer? Please set out reasons for your preference.

BT provided Ofcom with a very rough estimate of how much we expected it would cost us to set up a framework to support a number charging regime, along the lines previously proposed. By far the greatest contributor to that cost was the inter-operator billing activity for ported and WLR numbers. This required calculating utilisation rates (taking account of porting/WLR) and number block charges calculated on a daily basis in order to work out the annualised per number block charge (inter-CP billing and reconciliation). This makes all of the first four of Ofcom's options highly undesirable. If that were to be unnecessary, then we would anticipate implementation costs at or below the lower level of the figure given previously. If Option 5 - the discount approach where a range holder tells Ofcom the exported/WLR number counts and Ofcom then reduces the number block charge accordingly - as we understand it were to be adopted, we think the costs could be considerably below the previous lower-end figure.

In addition to the inter-operator billing requirement, Options 1 to 4 have the additional drawbacks of:-

- under-recovering the real cost of numbers (Option 1)
- making range-holders' utilisation figures, which we would view as commercially confidential, available to third parties (Options 2-4)
- only making BT's utilisation available to third parties, which we find even more unacceptable (Option 4)
- adds complexity, but little additional value (Option 3)

Options 2 and 3 could be marginally improved if CPs were required to offset their imports and exports. Under the current proposals, if CP A imported say 200k numbers from CP B and CP B imported 200k numbers from CP A, you would think there would be no charge flowing between them. But if CP A had a 20% utilisation figure, and CP B had a 50% utilisation figure, CP B would have to pay CP A £100,000 (5 X 200k X 10p) but CP A would only have to pay CP B £40,000 (2 X 200k X 10p). It cannot be right that a CP pays, in this case £60,000 per annum, despite not receiving any extra numbers, because they have better number utilisation. The incentives would be all wrong.

Even with "netting off", it is probable that individual CPs will be advantaged or disadvantaged as exports and imports between a pair of CPs are unlikely to be equal. In other words, the inter-CP number pricing differential would create winners and losers.

All four of these options would be improved if there was a single industry-wide “blended” rate that could apply to all ports and WLR sub-allocations, as there would be no number price differential between CPs. However, even if this were the case, it would only slightly ameliorate the position and setting/agreeing the rate would be fraught with problems.

Given these serious shortcomings, we are focusing in this response on Option 5 and how it could be tweaked to make it most effective. If Ofcom wants to consider Options 1-4, we would want to discuss these in more depth as necessary.

If the pilot were to go ahead, we are more positive about Ofcom’s Option 5. The main advantage of this approach is that it would do away with all of the inter-CP billing and reconciliation, the greatest cost-driver. As such it has the potential to be far simpler and less costly.

When we suggested the discount approach to Ofcom, we envisaged that CPs would/could be charged for WLR and imported numbers. However, Option 5 excludes this capability and leads to CPs being able to “freeload” where their business relies heavily on WLR and imported numbers. Number rangeholders would in effect subsidise other CPs.

An alternative to inter-CP billing would be for Ofcom to charge CPs for imported/WLR numbers. However, at paragraph A5.21, Ofcom states that “charging CPs separately for ported in/WLR numbers would create significant additional administrative burden for us to produce a list of ported in [and we assume WLR] numbers used by each CP”. Ofcom does not appear to have explained how it came to this view or the level of such costs. Whilst Ofcom is dismissing the option right now, we suggest that revising Option 5 to include Ofcom billing such CPs would still get to an outcome far less costly than Options 1-4, and more equitable than Option 5 as proposed.

Looking at the proposal, we could see that requiring every range-holder to declare the number of numbers they had exported, and the CP to whom the number had been exported, would be a significant task. However, we believe that Ofcom could reduce the burden on itself by relying on the returns of CPs who claimed the discount (ie not charging for numbers gained by CPs not claiming the discount). So, CPs claiming the discount would have to declare the number of numbers for which they were claiming the discount together with the name of the CP using the number or network terminating the number. Additionally, we think it is likely that Ofcom would be billing those CPs already for their own number allocations, so this would simply be an additional charge rather than a separate bill.

Whilst Ofcom implies that this measure would be disproportionate to the benefit, we note that in principle Ofcom would be billing rangeholders for as little as £100; where a CP takes a single 1k block in a chargeable area.

If Ofcom remained of the view that even applying the above measure the proposal would still be disproportionate, Ofcom could mitigate the burden still further by additionally applying a materiality threshold before Ofcom billed a CP for WLR/imported numbers, for example 20,000 numbers would have to be acquired, or alternatively say a minimum potential charge of £3k - the charge that Ofcom proposes to bill new applicants taking national coverage (if CPs acquired a block in every area, including thirty chargeable areas @ £100 for 1k of numbers in each).

Whilst we think that Ofcom billing non-rangeholders for their use of numbers would be the most practical way forward, we think that there is another way in which this imbalance could be addressed - by Ofcom doubling the potential discount applied to exported/WLR numbers used by third parties. To explain, the way this would work would be that if a CP's utilisation was say 50%, instead of receiving a 20p discount per exported number, it would receive 40p. This way, whilst the gaining provider benefits by 20p having received 20p-worth of number for nothing, the exporting CP benefits by 20p, recovering the cost and netting off the benefit. That is, both CPs benefit by 20p. We think this would be a neat way to mitigate the problem as donor and recipient/WLR CP would have the same quantity of free numbers – so there is no imbalance or advantage.

We view our utilisation figures as commercially confidential. However, we think the discount approach could be progressed without relying on BT's utilisation figure as follows (incidentally, calculating a utilisation figure is not cheap or easy to establish accurately, on a regular basis, and not an exercise we think we alone should endure):-

- each CP wanting to receive a discount for exported numbers would provide to Ofcom on an annual basis:-
 - the number of exported/WLR numbers in blocks for which Ofcom was raising a charge and
 - its utilisation figure across those blocks
- if CPs did not provide a utilisation figure, or the number of exported numbers, they would not receive a discount
- if CPs provided the number of exported numbers but not a utilisation figure, they would receive a rebate of 10p per number (doubled to 20p using the above methodology)
- as with Ofcom's previous proposal, if a CP's utilisation rate were under 20%, it would be deemed to be 20% and they would receive a 50p credit per number exported (doubled to £1, based on the above methodology). If it were above 20p, the reciprocal of the utilisation rate would be used as the multiplier. For example, if the utilisation were 50%, ie $\frac{1}{2}$, then the multiplier would be $\frac{2}{1}$, and the discount would be 20p per number (40p based on the above methodology). If it were, 40%, ie $\frac{2}{5}$ ths, they would receive $\frac{5}{2} \times 10p$ per number, 25p per number (doubled to 50p based on the above methodology).

A simpler and therefore preferable variant to this that Ofcom could consider would be to apply a single rate across industry, based on a "blended" utilisation rate across a significant number of CPs or a proxy for utilisation across CPs applying for the

discount. We think this is worth considering as calculating the utilisation rate is not as straightforward as it sounds, given the number of different systems involved, in BT's case, and the commercial sensitivity of number utilisation. Ofcom could propose a proxy figure for consultation that could be updated on an infrequent basis.

Question 9: Do you have any comments on Ofcom's intended billing assumptions for the proposed pilot charging scheme for geographic numbers? (i.e. that Ofcom will bill CPs annually; CPs will be billed in arrears; and charges will accrue for each number block in chargeable area codes on a daily basis)

Please see answer to question 4 above.

Question 10: Do you have any views on the appropriate Charging Year and billing cycle for the pilot charging scheme for geographic numbers?

In our view, charges should be billed annually in arrears for the period 1 April – 31 March.