



Geographic telephone numbers

Safeguarding the future of geographic numbers

(✂ Redacted for publication)

Further Consultation

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Section 1

Summary

- 1.1 This consultation concerns geographic telephone numbers - these are fixed-line telephone numbers that begin with '01' and '02'. These numbers are widely recognised, valued and trusted by consumers. Ofcom administers this national resource and seeks to ensure that sufficient numbers are available to allocate to communications providers ('CPs') so that they can provide a choice of services to consumers.
- 1.2 Geographic numbers are an increasingly scarce resource. Although the quantity of geographic numbers that CPs already hold in total exceeds likely demand from end-users, individual CPs nevertheless need new allocations of geographic numbers from time to time. Our forecast of CPs' demand shows that, unless we take action, we risk running out of geographic numbers to allocate to CPs in some of the areas which have four- and five-digit area codes¹ in the foreseeable future. We therefore consulted in November 2010 and September 2011 on measures designed to ensure the ongoing availability of geographic numbers across the UK.
- 1.3 In September 2011 we decided that where an area with a four-digit area code needs more local numbers, we will increase supplies by closing local dialling. This means that fixed-line phone users in those areas will need to dial the area code when making local calls. This change in dialling behaviour enables us to release new numbers for use² without requiring any changes to existing phone numbers. Dialling the full number will not affect the cost of the call.
- 1.4 The Bournemouth 01202 area code will be the first area code in which we will implement our policy for increasing the supply of numbers in this way. Demand for 01202 numbers is high and we forecast that we will run out of new 01202 numbers to allocate to CPs later this year if we do not take action. In this document we are consulting on the date for closing local dialling in the Bournemouth area.
- 1.5 We are also consulting further on some measures to improve the effective and efficient use of geographic telephone numbers that we proposed in the November 2010 and September 2011 consultations. These measures are introducing a pilot scheme to charge CPs for allocated numbers in 30 specified area codes and allocating smaller blocks of numbers in 11 areas with five-digit area codes.
- 1.6 In summary, the purpose of this document is to:

¹ These are area codes in the format 01XXX and 01XXXX. Areas with '0' plus two-digit area codes (such as London (020) and Cardiff (029)) and '0' plus three-digit area codes (such as Glasgow (0141) and Nottingham (0115)) are not likely to run out of numbers. The area codes running out of numbers are some other large population centres, for example Brighton (01273), Bournemouth (01202) and Aberdeen (01224) with '0' plus four-digit area codes.

² We can create new supplies of local numbers (without changing anyone's phone number) by stopping the ability to dial a local number without the area code. Doing so will allow us to make new local numbers beginning with '0' and '1' available for use. For example, closing local dialling in the Bournemouth 01202 area code would make 01202 0XXXXX and 01202 1XXXXX numbers available for use. We cannot use such numbers while local calls are dialled without the area code because phone networks can confuse them with dialling codes which start with '0', or with numbers for certain services such as 150, 1471 and 118XXX.

- consult on 1 November 2012 as the date on which local dialling in the Bournemouth 01202 area code will be closed. From that date, local consumers would need to include the 01202 area code when dialling local calls from fixed-line phones;
- consult on the final arrangements for introducing number charging in a pilot scheme covering 30 area codes with the fewest number blocks remaining available for allocation;
- consult on the detailed arrangements to make a limited quantity of blocks of 100 numbers available to allocate to CPs in the 11 areas with five-digit area codes; and
- consult on the legal instruments to give effect to these measures.

Background

- 1.7 We maintain forecasts of future availability of new geographic numbers for each of the UK's 610 geographic area codes. While the forecasts, by their nature, are subject to significant uncertainties, they nevertheless indicate that if we do not make changes, we risk exhausting our stocks of geographic numbers to allocate to CPs from 2012 onwards, with seven area codes running out of numbers before 2016 and 45 area codes, covering around 18 per cent of the UK population, running out by the end of 2021.
- 1.8 We allocate contiguous blocks of geographic numbers by area code to CPs that meet certain eligibility requirements. Competition in fixed-line voice services has been developing strongly for many years, and there are now some 300 CPs with allocations of geographic numbers. Currently, we do not charge CPs for phone numbers.
- 1.9 Under current arrangements, a CP that needs new numbers in an area generally applies to us for a new allocation while a large number of other CPs hold stocks of unused numbers in the same area code. Since our supplies of new numbers in any area code are limited, we could exhaust our supplies for some areas even though the total quantity of numbers already held by CPs for those areas would exceed local consumers' needs. If this were to happen, consumers could still obtain phone services with new local numbers, but only from CPs with unused numbers from previous allocations. Consumers may then be constrained in their choice of supplier and denied the benefits of competition and new services.
- 1.10 Capacity limitations in older equipment used in some networks have so far required us to allocate all geographic numbers in blocks of at least 1,000 contiguous numbers. These limitations are not likely to be relieved substantially in the foreseeable future. Allocations of 1,000 numbers may be larger than some CPs require in some areas, leading to inefficiency in number use. While any of the numbers from a block are in use, the CP to which the block has been allocated cannot return the remaining unused numbers in that block to us for allocation to another CP.
- 1.11 In light of impending shortages of geographic numbers in some area codes, we launched a review of geographic number management. On 25 November 2010 we

published a document ('the November 2010 consultation')³ inviting views on our proposals to change the way that we manage geographic numbers. They included:

- measures to make new geographic numbers available in area codes which are likely to exhaust their current supplies in the foreseeable future;
- a pilot scheme for charging CPs for geographic numbers allocated to them in area codes with the fewest number blocks remaining available for allocation; and
- steps to strengthen the administrative processes which we use to allocate geographic numbers to CPs.

1.12 Following the November 2010 consultation, we published a statement and further consultation on 7 September 2011 ('the September 2011 statement and consultation').⁴ In that document we:

- set out and explained our decision on how we will increase the supply of geographic numbers in four-digit area codes where more numbers are required;
- consulted on revisions to our proposal to charge CPs for geographic numbers in certain area codes; and
- consulted on a limited roll out of smaller number blocks in 11 areas with five-digit area codes.

Proposals for consultation in this document

We will close local dialling in the Bournemouth 01202 area code and we propose to do so on 1 November 2012

1.13 Our forecast for number availability in the Bournemouth 01202 area code is that we will run out of our available stock of numbers to allocate to CPs later this year. We need to safeguard the future supply of landline numbers in the Bournemouth area to ensure that a lack of numbers does not prevent consumers and businesses from enjoying the widest choice of telecoms providers and services. We therefore need to consider an appropriate date on which to close local dialling in the 01202 area code.

1.14 We established an industry group to help us develop a detailed plan for the implementation of closing local dialling in the 01202 area code. This includes identification of an appropriate date for closing local dialling, planning an effective consumer communications campaign and agreeing best practice guidelines for CPs' implementation (including automated messages instructing callers on what to do if they dial a local number without the area code). We also contacted the local council, community groups and other local stakeholders to establish any potential concerns with the proposed date for closing local dialling in the area covered by the 01202 code.

³*Geographic Telephone Numbers: Safeguarding the future of geographic numbers*, consultation published 25 November 2010
<http://stakeholders.ofcom.org.uk/binaries/consultations/geographic-numbers/summary/geographic.pdf>.

⁴*Geographic Telephone Numbers: Safeguarding the future of geographic numbers*, statement and further consultation published 7 September 2011
http://stakeholders.ofcom.org.uk/binaries/consultations/safeguarding-geographic-numbers/summary/Geographic_numbering_2011.pdf.

- 1.15 The group considered that 1 November 2012 would be an appropriate date to propose for closing local dialling in the 01202 area code. It would not conflict with any major national or local events; it would provide sufficient lead time to inform local citizens of the required change to dialling behaviour; and also time for CPs to implement the change. It should also ensure that the new 01202 numbers are available for allocation before the existing supply runs out.
- 1.16 Once the date for closing local dialling in the Bournemouth 01202 area code is established following this consultation, Ofcom and CPs can focus on ensuring the change to dialling behaviour is communicated effectively to all groups of citizens and consumers in the local area.
- 1.17 There are four other area codes that we forecast will run out of available numbers to allocate to CPs by the end of 2014. These are Aberdeen (01224), Brighton and Hove (01273), Bradford (01274) and Middlesbrough (01642). Closing local dialling in an area code requires us to consult on modifications to the National Telephone Numbering Plan⁵ ('the Numbering Plan') and we expect to consult on our proposals to close local dialling in these area codes next year.

We are consulting on the final arrangements for introducing number charging in a pilot scheme

- 1.18 Following refinement of our proposals to charge CPs for geographic numbers that they have been allocated in certain area codes, as set out in the November 2010 consultation and the September 2011 statement and consultation, we have reached the provisional conclusion that we will introduce charging in a pilot scheme covering the 30 area codes with the fewest number blocks remaining available for allocation.
- 1.19 We are now looking to receive comments on the following outstanding aspects of the pilot scheme:
- in order to implement the proposed pilot scheme, we have proposed amendments (by inserting new conditions) to the General Condition relating to the allocation, adoption and use of geographic numbers ('GC17');⁶
 - we are proposing to give the CP allocated the numbers a discount to its number charge bill for numbers used by another CP under the regulated arrangements for number portability⁷ or used by BT to provide wholesale line rental ('WLR')⁸ to another CP. We have set out how we intend to calculate and apply the discount; and

⁵ We set out the proposed changes to the Numbering Plan to close local dialling in the Bournemouth 01202 area code in Annex 7 of this document. The Numbering Plan is published on our website at <http://stakeholders.ofcom.org.uk/binaries/telecoms/numbering/numplan201210.pdf>.

⁶ General Condition 17 on the Allocation, Adoption and Use of Telephone Numbers. GC17 is published as an annex to the Numbering Plan. The proposed new conditions are set out in Annex 8 of this document.

⁷ Number portability is the facility for consumers to retain their telephone number when switching providers. A ported number remains allocated to the original CP even though another CP is now using the number to provide a service to the customer.

⁸ WLR is a regulated service which BT supplies to retail CPs allowing them to rent access lines on wholesale terms, and resell the lines to customers. WLR lines are usually attached to a number allocated to BT. However, it is the retail CP that provides a service using the number.

- we have explained the details for implementing and administering the pilot scheme, including our proposal that the charging year is 1 April to 31 March, with the first charging year commencing on 1 April 2013.

We are proposing to allocate a limited number of smaller number blocks to relieve scarcity in five-digit area codes

- 1.20 We have investigated the feasibility of addressing the shortage of number blocks available in five-digit area codes in a way that would not affect consumers in those areas. We propose to allocate numbers more efficiently in those area codes by making available 100 blocks of 100 numbers from our existing supplies to CPs requiring new numbers in those area codes.
- 1.21 In order to implement this proposal, we are consulting on the details of the limited roll out of 100-number blocks, including the necessary modifications to the Numbering Plan.⁹

Next steps

- 1.22 This consultation runs until 2 May 2012. Once it has closed, we will take account of all submissions received and then reach our conclusions.
- 1.23 We will publish two separate statements finalising the different proposals put forward in this consultation. The first statement will conclude on the date for closing local dialling in the Bournemouth 01202 area code. We plan to publish this statement in May 2012.
- 1.24 The second statement will conclude on the proposals (i) to implement number charging in a pilot scheme and (ii) to roll out 100-number blocks in the 11 five-digit area codes. We plan to publish this statement in July 2012.
- 1.25 In a separate exercise from this consultation, we are undertaking a review of our administrative processes for allocating geographic numbers. As part of that review, we intend to consult on the introduction of a time-limited reservation stage before allocation of numbers to CPs that have not demonstrated operational readiness to put the requested numbers into use. We also plan to consult on changes to the forms that CPs fill in when applying for the allocation of new numbers to elicit more information on which to base our allocation decisions. We intend to publish a consultation on these proposals in summer 2012.

⁹ We set out the proposed changes to the Numbering Plan to implement 100-number blocks in Annex 7 of this document.

Section 2

Introduction and background

Introduction

- 2.1 Telephone numbers are a critical and, in some cases, scarce national resource. They are fundamental to the communications requirements of consumers and businesses.
- 2.2 Geographic telephone numbers – so called because the first few digits following ‘01’ and ‘02’ provide geographic significance and associate the number with a particular UK location - are the numbers most widely recognised, valued and trusted by consumers. They are also referred to as ‘landline’ or ‘fixed line’ numbers, as they are the type of number used for residential and some businesses’ fixed telephone lines.¹⁰
- 2.3 Ofcom manages the UK’s telephone numbers under the Communications Act 2003 (‘the Act’). We are responsible for ensuring that sufficient numbers are available to meet demand and for setting the policy on how numbers may be used. We allocate blocks of numbers to CPs so that they can use those numbers to deliver services to their customers. CPs must adopt and use numbers in accordance with GC17 and the Numbering Plan.
- 2.4 The number of CPs has increased significantly over the last ten years, leading to more competition and choice for consumers. This has led to an increasing demand for geographic numbers. However, our stock of geographic numbers is limited. We are facing challenges in ensuring the ongoing availability of sufficient number blocks to allocate to CPs’ so that they can provide a choice of services to consumers. Importantly, the current challenges do not present a risk to the availability of numbers for consumers’ use or mean that consumers will need to change their existing telephone numbers. The problem lies in ensuring that there remains an adequate supply of number blocks to allocate to CPs in all geographic areas.
- 2.5 If, hypothetically, our stocks of geographic numbers available for allocation with a certain area code were to run out, there would still be sufficient numbers already allocated to CPs to ensure that consumers could obtain new fixed-line voice services. However, their choice of provider would be restricted only to those who happen to have geographic numbers available from previous allocations. Consumers could then be constrained in their choice of supplier and denied the benefits of competition and new services.¹¹
- 2.6 The partitioning of numbers into large blocks for allocation to CPs creates a potential shortage in certain area codes. The number block size is determined by routing constraints in some long-established networks. Telephone networks analyse the digits of dialled phone numbers to extract (or ‘decode’) the necessary information for routing and tariffing of calls. Some older networks use equipment designed many

¹⁰ Further background information on geographic numbers (including their definition and characteristics; the area code and local number digit structure; how geographic numbers are distributed to end users; demand and challenges in managing geographic numbers) is provided in Annex 1.

¹¹ This relates to CPs’ ability to compete for consumers who want or need a new geographic phone number for their service. If the consumer wanted to retain an existing geographic number, then number portability (the facility to retain the telephone number when switching providers) would allow the CP to offer a service without providing a new number.

years ago to perform this function. The limited capacity of this equipment restricts the number of digits of each dialled phone number that those networks can decode into routing information. This means that the minimum size of block that we can allocate to any CP must be sufficiently large to accommodate these restrictions, otherwise the older networks would not be able to analyse sufficient digits in dialled numbers to route calls if numbers were allocated in smaller blocks. For example, we currently allocate numbers in blocks no smaller than 1,000 numbers so networks do not need to decode the last three digits of any dialled number when routing calls.

2.7 In light of the above, we launched a review of geographic number management.

Scope of this review

2.8 Our review relates to geographic telephone numbers only. We are focusing on geographic numbers due to the high level of scarcity in some area codes, which is not being experienced in other number ranges.

2.9 The geographic scope of the review is the UK and does not include Jersey, Guernsey and the Isle of Man.¹²

2.10 Our focus on geographic numbers does not mean that this review is being treated in isolation from the rest of the UK's telephone numbering plan and our work in administering telephone numbers generally. Some of the proposals discussed in this document are intended to influence demand for geographic numbers and, as a consequence, could affect demand for numbers in other ranges. Also, some of the options considered for managing numbers more efficiently might potentially be considered for other types of numbers in the future.

2.11 As well as conducting this review of geographic numbers, we are also undertaking a separate review of non-geographic call services. Our proposals in each review are independent although there is potential for decisions made in one review to affect demand for numbers covered by the other. We published a consultation on non-geographic call services in December 2010.¹³ We plan to publish a further consultation shortly.

Our approach to this review of geographic numbers

Reflecting citizen and consumer interests

2.12 One of the most important ways that we further consumers' interests is by promoting competition.¹⁴ The availability of sufficient and appropriate numbers for CPs to use to compete in the provision of services to consumers is essential for effective competition, as a lack of numbers may create barriers to new entry and expansion in the provision of services.

¹² Jersey, Guernsey and the Isle of Man are constitutional dependencies of the British Crown. They have their own telecommunications acts and communications regulators. Although not part of the UK, they use numbers from the UK's telephone numbering plan.

¹³ *Simplifying Non-Geographic Numbers: Improving consumer confidence in 03, 08, 09, 118 and other non-geographic numbers*, consultation published 16 December 2010
<http://stakeholders.ofcom.org.uk/consultations/simplifying-non-geo-numbers/>.

¹⁴ Section 3 of the Act states that part of our principal duty is "to further the interests of consumers in relevant markets, where appropriate by promoting competition".

- 2.13 Measures to increase the supply of geographic numbers are necessary in area codes forecast to run out of numbers in the next few years. Absent such measures, a lack of numbers could restrict the provision of services and could deny local consumers the full benefits of competition. Furthermore, the European electronic communications framework states that “Member States shall ensure that adequate numbers and numbering ranges are provided for all publicly available electronic communications services”¹⁵ and we are required to secure the availability throughout the UK of a wide range of electronic communications services.¹⁶ We must therefore be prepared to increase the supply of numbers in area codes that are close to running out.
- 2.14 In deciding how to address the need to create more numbers, we are mindful that any option for creating new supplies of geographic numbers would involve some disruption to citizens and consumers. Based on our duty to further the interests of consumers, we seek to minimise such disruption, and this consideration has shaped our approach.
- 2.15 We also take into account the impact of numbering policy on citizens’ interests. Telephone numbers are required for routing calls over telecommunication networks and are a vital means of communication, providing access to many essential public services. Geographic numbers are scarce. The value of this resource should be reflected in the way that numbers are used. We also recognise, from our consumer research, that many people, businesses and communities attach significant importance to continuity of ‘their’ phone number and the preservation of its inherent meaning in terms of location significance.¹⁷

Regulatory duties

- 2.16 The Act states that our principal duty is to further the interests of citizens in relation to communications matters and of consumers in relevant markets, where appropriate by promoting competition.¹⁸ This duty lies at the heart of everything we do. In carrying out our principal duty, we are required to secure a number of specific objectives and to have regard to a number of matters, as set out in section 3 of the Act. As to the prescribed specific statutory objectives in section 3(2) of the Act, we consider that securing the availability throughout the UK of a wide range of electronic communications services as particularly relevant to this review of geographic numbers.
- 2.17 Section 4 of the Act requires us to act in accordance with the six European Community requirements for regulation. Of particular relevance to this review are the first Community requirement to promote competition in the provision of electronic communications networks and services, and the third Community requirement to promote the interests of all persons who are citizens of the European Union. We also

¹⁵ Article 10(1) of the Framework Directive (Directive 2009/140/EC of the European Parliament and of the Council of 25 November 2009 amending Directives 2002/21/EC on a common regulatory framework for electronic communications networks and services) <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:337:0037:01:EN:HTML>.

¹⁶ Under section 3(2)(b) of the Act.

¹⁷ In a report prepared by Futuresight on geographic numbers *Geographic numbering and local dialling*, published November 2010 (‘the 2010 consumer research’) <http://stakeholders.ofcom.org.uk/binaries/consultations/geographic-numbers/annexes/numbering-futuresight.pdf>, we found that the majority of consumers thought it was important to be able to identify the location from the telephone number, and more consumers felt this way in 2010 than in the consumer research conducted in 2005 (64 per cent compared with 52 per cent respectively).

¹⁸ Section 3 of the Act.

take into account the desirability of our carrying out our functions in a manner which, so far as practicable, does not favour one form of, or means of providing, electronic communications networks, services or associated facilities over another; that is, to be technologically neutral.

2.18 We also have a general duty under section 63(1) of the Act in carrying out our telephone numbering functions:

“a) to secure that what appears to them to be the best use is made of the numbers that are appropriate for use as telephone numbers; and

b) to encourage efficiency and innovation for that purpose.”

2.19 Further information on the legal framework for our administration of telephone numbers, including the power to set General Conditions, is provided in Annex 6.

Impact assessment

2.20 Impact Assessments form a key part of the policy-making process and provide a transparent way of considering different options for regulation, including not regulating. We expect to carry out Impact Assessments for the great majority of our policy decisions. The analysis presented throughout the document represents an impact assessment as defined in section 7 of the Act.¹⁹

Equality impact assessment

2.21 We must also assess the effect of functions, policies, projects and practices on race, disability and gender equality. Equality impact assessments also assist us in making sure that we are meeting our principal duty of furthering the interests of citizens and consumers. We have therefore also considered what (if any) impact the issues under consideration in this document may have on equality and carried out a separate assessment for each of our proposals. Where relevant, we have highlighted our consideration of equality issues in the document.

General regulatory principles

2.22 We must also have regard to the principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed, as well as acting in the interest of consumers in respect of choice, price, quality of service and value for money.²⁰

Policy principles

2.23 The policy principles²¹ that guide our strategic decisions on how telephone numbers are managed are that:

- the numbers consumers want are available when they are needed;
- the numbers consumers currently use are not changed if this is avoidable;

¹⁹ See our guidelines at http://stakeholders.intra.ofcom.local/binaries/consultations/better-policy-making/Better_Policy_Making.pdf.

²⁰ Section 3(5) of the Act.

²¹ We developed these principles in 2006 when we reviewed how we manage telephone numbers.

- the meaning which numbers provide to consumers is protected;
- number allocation processes support competition and innovation; and
- consumers are not avoidably exposed to abuse.

2.24 Based on our policy principles, we will manage geographic numbers in the following way:²²

- we will take steps now to ensure the availability of geographic numbers for consumers in a manner that maintains their continuity and meaning, and causes consumers the least disruption and cost;
- we will ensure that sufficient numbers are available so that scarcity of numbering resource does not create barriers to entry or service provision;
- our management of numbers will be neutral in the treatment of CPs; it will take account of the link between numbering and routing and the consequential impact that numbering policy has on the markets for routing and number portability;
- tariff transparency should be retained, so that a caller pays what he/she expects to pay for a call to a geographic number; and
- our policy approach will not hasten the erosion of location significance but will recognise (and not stifle) the effect of network and service evolution on that significance.

2.25 Our approach for this review of geographic numbers is to address the scarcity of geographic numbers by using all reasonable and proportionate measures. We consider that the following package of complementary measures is the most appropriate way of ensuring that geographic numbers are available for allocation in all area codes in the future:

- to plan for new geographic numbers in area codes which are likely to exhaust their current supplies in the foreseeable future;
- to charge CPs for geographic numbers allocated to them in area codes with the fewest number blocks remaining available for allocation; and
- to take steps to strengthen the administrative processes which we use to manage and allocate geographic numbers to CPs (some of which are subject to consultation).

Previous consultations in this review of geographic number management

The November 2010 consultation

2.26 In the November 2010 consultation we set out the challenges for ensuring geographic number availability and what we could do to manage that resource. In light of our forecasts of number scarcity, we planned for the actions required to increase the supply of numbers in area codes when and where needed. We

²² We developed this approach on managing geographic numbers through the November 2010 consultation.

recognised that all options for increasing the supply of numbers would necessarily cause some disruption to consumers and businesses and we looked for ways to minimise this.

- 2.27 Our approach was to work with CPs to reduce the need for new supplies by taking measures to drive efficiency in number use; and to identify which number supply measures are regarded by consumers as the least disruptive. We put forward a variety of proposals for our ongoing management of geographic numbers to safeguard their availability in the future.

Proposals to increase the supply of new numbers

- 2.28 We explained that given our forecast for number availability, we needed to plan now for the most appropriate action to increase the supply of numbers where and when required. We considered that this action should avoid changes to existing geographic numbers and that we should apply localised measures to address localised shortages.
- 2.29 We identified two basic approaches to increasing number supply that met those criteria - closing local dialling and overlay codes. Closing local dialling withdraws the facility to make a local call without dialling the area code, which makes local numbers beginning with '0' and '1' available for use. Overlay codes supply more numbers by making a second area code available for the same area. We also established that certain areas (i.e. those with five-digit area codes) may need a specialised response to increase number supply.
- 2.30 Having carried out our preliminary assessment of these options, we proposed to close local dialling in four-digit area codes. In some of the area codes concerned, our forecast suggested that additional number supplies might be necessary at some time after closing local dialling. We proposed to implement an overlay code where and when this may be necessary.
- 2.31 Our proposed approach for increasing the supply of numbers in five-digit area codes was to merge their area codes with the corresponding four-digit area code (i.e. the area code that shares the same four digits after the leading '0') so that all the numbers would be in the four-digit area code format.

Proposals to charge CPs for geographic numbers

- 2.32 We considered that, in principle, charging CPs for numbers allocated to them could reduce demand for new number blocks and encourage efficient use of existing allocations. The incentive effect of charging, therefore, could help to reduce the need for the new number supply measures described above. We set out how number charging might work and discussed the possible effects on consumers, CPs, competition and Ofcom.
- 2.33 In summary, we proposed to introduce a pilot scheme to charge CPs for geographic numbers allocated to them in a limited number of area codes. The pilot scheme would cover area codes with the fewest number blocks remaining available for allocation (suggested as area codes with 100 or fewer blocks of 1,000 numbers remaining available for allocation to CPs). A periodic annual charge of 10p per number allocated was proposed. The charge would be imposed on the CP to whom we allocated the block of numbers. For cases where, for regulatory reasons, the CP

using the number was different from the range holder²³ (i.e. where numbers are ported or where BT provides WLR to retail providers) we proposed to set out principles for cost recovery.

Proposals relating to our administrative processes for managing geographic numbers

2.34 We considered whether any further opportunities existed to incentivise and facilitate CPs' better use of the existing supply of geographic numbers. We identified some areas that we were interested in pursuing:

- introducing a time-limited reservation stage prior to allocation of geographic numbers to some applicants. We considered that reservations would apply to CPs that had not demonstrated operational readiness to put the requested numbers into use;
- revising the application forms that CPs must fill in when requesting the allocation of numbers to gather more extensive information on which to base our allocation decisions and to provide a basis for auditing purposes;
- strengthening and broadening our audits of CPs' number use; and
- making a limited supply of geographic numbers available for allocation in blocks of 100 numbers. We proposed seven four-digit area codes where numbers were particularly scarce as potential area codes for consideration for the limited roll out.²⁴

The September 2011 statement and consultation

2.35 In the September 2011 statement and consultation we further developed our proposals to manage geographic numbers. We explained that, due to the results of an extensive audit of CPs' number use and expected withdrawal of 69,000 blocks of unused numbers, we forecast that 25 four-digit area codes would run out of numbers for us to allocate by 2021. However, although the number of area codes forecast to run out of numbers during the next ten years had reduced, we still predicted the need to increase the supply of numbers in certain area codes from 2012 onwards.

2.36 In that document, we:

- set out and explained our decision on how we would increase the supply of geographic numbers in four-digit area codes where more numbers are required;
- consulted on some revisions to our proposal to charge CPs for geographic numbers allocated in certain area codes;
- consulted on making available a limited supply of 100-number blocks for allocation to CPs in the 11 five-digit area codes; and

²³ The 'range holder' is the CP to whom Ofcom has allocated the block of numbers which contains the number that has been ported or used to provide WLR.

²⁴ In the November 2010 consultation we proposed the allocation of 100-number blocks in seven area codes that were, at that time, forecast to run out of numbers for allocation before 2015. Those area codes were Blackpool (01253), Bournemouth (01202), Bradford (01274), Brighton (01273), Derby (01332), Derby (01332), Langholm (013873) and Middlesbrough (01642).

- confirmed that in a separate exercise, we would review our administrative processes for allocating geographic numbers to CPs.

Decision on how we will increase the supply of new numbers in four-digit area codes

- 2.37 We set out our decision on how we would make more numbers available in four-digit area codes that are forecast to run out of their existing supply of numbers. We concluded that the most appropriate solution to number block scarcity in areas with four-digit codes was to implement our proposal to close local dialling and, if in the future, further numbers are needed, we would introduce an overlay code.
- 2.38 In reaching this decision, we assessed this measure alongside the options of implementing an overlay code immediately and requiring a code and number change (i.e. shortening the area code to three digits and increasing the length of each local number from six to seven digits – this option was suggested by some stakeholders in their response to the November 2010 consultation).
- 2.39 We concluded that as our preferred option will not require changes to any existing phone numbers, and as it delays the need for the potentially more disruptive measure of introducing an overlay code, it would have the least impact on consumers and was therefore the most appropriate option. This was also the option generally preferred by consumers and CPs that responded to the consultations.

Proposals to charge CPs for geographic numbers

- 2.40 We published our proposal to charge CPs for geographic numbers in certain area codes in a pilot scheme. We concluded that introducing a charge for geographic numbers was likely to encourage CPs to use numbers more efficiently. We thought that a pilot scheme targeting specific area codes would be appropriate, particularly to enable us to monitor unintended consequences of charging and limit their impact should they occur.
- 2.41 We set out for further consultation revised proposals for some aspects of the pilot scheme. These included the criteria used to select the area codes included, with our revised proposal to include around 30 four-digit area codes which have the fewest number blocks remaining available to be allocated. We also proposed alternative options to simplify the arrangements for numbers allocated to one CP but used by another CP to provide retail services under regulated arrangements, i.e. number portability and WLR. In addition, we consulted on the billing assumptions to enable CPs to assess more fully the likely costs and impacts to their businesses.

Proposals relating to our administrative processes for managing geographic numbers

- 2.42 We explained that, following discussions with CPs, we considered it likely that fixed networks could support the routing of calls to numbers allocated in a limited quantity of smaller blocks in some parts of the UK. However, doing so in the seven area codes proposed in the November 2010 consultation was unlikely to be suitable given the high demand for numbers in those area codes and the resulting impact on networks of large quantities of smaller block allocations.
- 2.43 We therefore considered that smaller number blocks could allow us to meet new demand from CPs seeking to offer services in the 11 five-digit area codes more efficiently. We consulted on making up to 100 blocks of 100 numbers available for allocation in each of these area codes to establish the feasibility of this approach.

- 2.44 We also confirmed that we would review our number allocation processes for geographic numbers in a separate exercise. This review would likely include a consultation on the introduction of a time-limited reservation stage prior to allocation of geographic numbers to some applicants and changes to the numbering application forms to gather more information on which to base our number allocation decisions.

Developments since publishing the September 2011 statement and consultation

Working with CPs on implementation of closing local dialling

- 2.45 We hosted an industry forum on 25 October 2011 and invited all CPs with an allocation of geographic numbers from Ofcom to attend. At this forum, we explained the reasoning behind our decision on number supply measures and that we would take implementation work forward with an industry working group.
- 2.46 The 'Closing local dialling industry group' was set up in November 2011.²⁵ The group's first task was to consider the forecast for number availability and discuss when Ofcom should propose to close local dialling in area codes.
- 2.47 Our forecast for number availability shows that scarcity is particularly acute in the Bournemouth 01202 area code and available number blocks for us to allocate to CPs are expected to run out later this year. The group agreed that we need to take action in the 01202 area code to ensure the ongoing availability of numbers. In Section 3, we discuss our proposal to close local dialling in the Bournemouth 01202 area code on 1 November 2012.
- 2.48 The group will continue to work with Ofcom on the implementation of closing local dialling in the 01202 area code. It will also consider the need for closing local dialling in other area codes in the coming years.

Effect of audit on CPs' use of numbers on the forecast

- 2.49 We regularly conduct audits on CPs' use of allocated numbers with a view to identifying and requesting the return of unused 1,000-number blocks. Between April and July 2011 we conducted an audit across virtually all of the four-digit area codes. The responses resulted in 53 CPs pledging to return over 69,000 blocks of unused numbers (i.e. 69 million numbers) across 570 area codes.
- 2.50 When conducting our forecast of number block availability for the September 2011 statement and consultation, we incorporated in the analysis the number blocks that we expected to reclaim as a result of the 2011 audit. The effect was to extend our number availability forecast in four-digit area codes by eight years on average when compared to the November 2010 forecast, and by a considerably longer period in some area codes. As a result, we forecast that 25 four-digit area codes would run out of numbers to allocate to CPs by 2021 compared with 59 four-digit area codes in the November 2010 forecast.
- 2.51 However, at present we have not withdrawn all the number blocks anticipated as a result of the 2011 audit, and the total of actual blocks returned to date is 42,000 (i.e. 42 million numbers). In working with CPs to reclaim unused number blocks, we recognise that the withdrawal of blocks at the 10,000 number block level and

²⁵ Further information on the 'Closing local dialling industry group' is provided at paragraphs 3.18 TO 3.21.

subsequent reallocation of numbers at the 1,000 number block level requires changes to the way networks route calls and that these changes take time and may be more difficult for some legacy networks to accommodate. We have consequently worked to balance short-term number supply requirements with the impact resulting from a large quantity of number block withdrawals as a result of audits, and this has resulted in a staggered approach to number block withdrawal.

- 2.52 We consider it prudent to provide the forecast of number block availability in this document based on actual number block availability adjusted only for number blocks whose return has been confirmed and are in the process of being withdrawn from the CP.
- 2.53 We present our revised forecast below (and in more detail in Annex 2). We now forecast that 45 four-digit area codes will run out of numbers by the end of 2021 compared with 25 four-digit area codes in the September 2011 forecast. This difference is mainly a result of the adjustment for actual rather than expected number block returns. Therefore an important point to note in the forecast is that the revision is based on actual number block availability and not an increase in demand for numbers.
- 2.54 We will continue our work with CPs to withdraw number blocks that are not in use and will adjust the forecast accordingly. We will also continue our regular audits of CPs' allocated number use. We conducted a further audit during January and February 2012 on CPs' use of numbers in ten four-digit area codes and 11 five-digit area codes that were not included in the 2011 audit. We are processing these returns and, where withdrawals have been confirmed, incorporated these in our revised forecast.

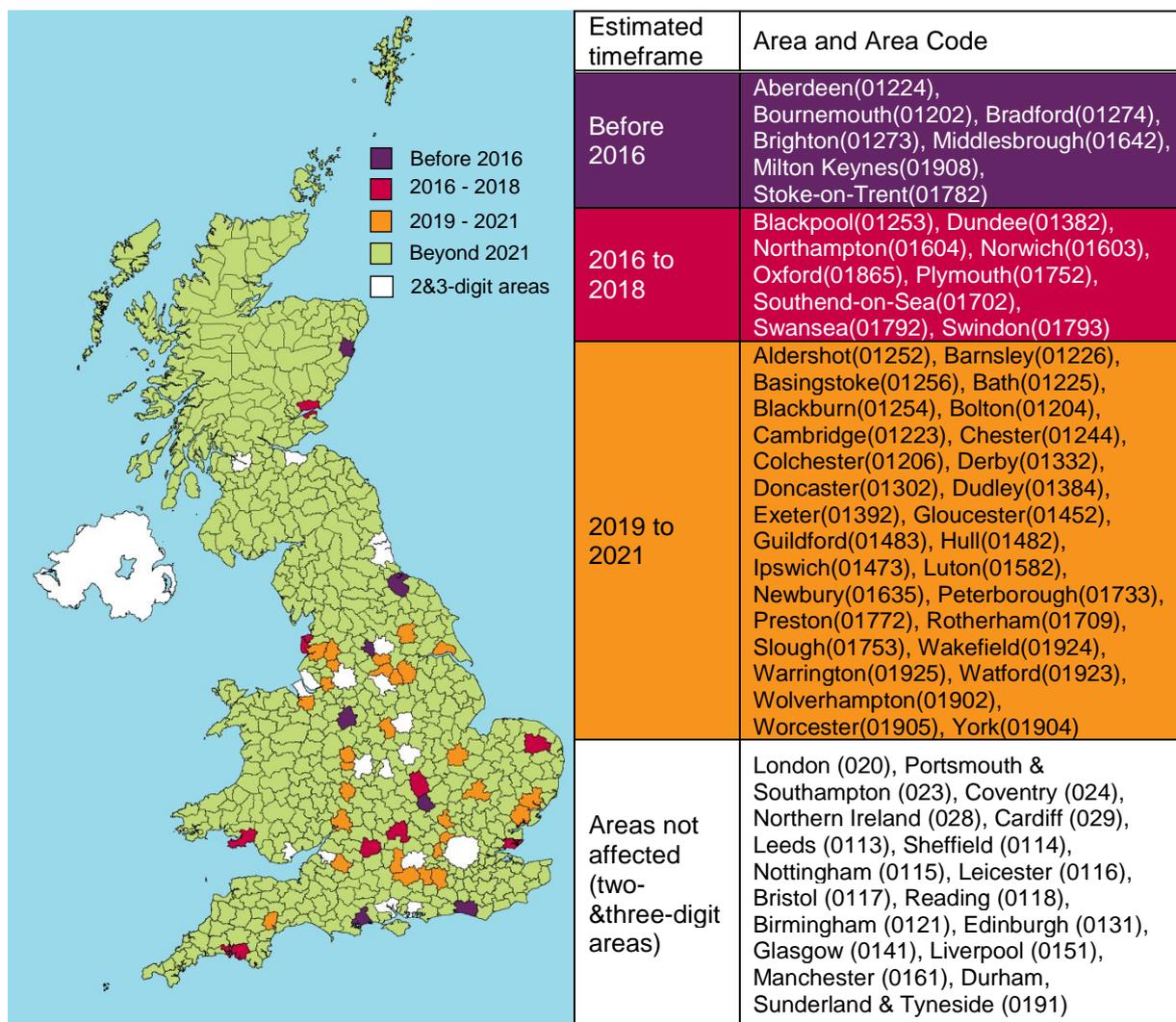
Our revised forecast for number availability

- 2.55 We provided a forecast of geographic number availability in the November 2010 consultation and the September 2011 statement and consultation. We have updated this analysis for the purposes of this consultation.
- 2.56 Based on the availability of number blocks for allocation as at 21 January 2012 and current number demand trends, we forecast that 45 four-digit area codes would need measures to increase the supply of new numbers by the end of 2021. Figure 2.1 below shows a map and list of these area codes along with an estimate of the year when they are expected to run out of number blocks to allocate to CPs.
- 2.57 As stated, the forecast displayed in Figure 2.1 is a 'snapshot' of relevant data as at 21 January 2012 and the forecast for each area code will oscillate over time (for instance each time a block of numbers is allocated or withdrawn in an area code there may be an effect on the forecast).
- 2.58 The forecast is based on historical allocation trends and is necessarily subject to uncertainties.²⁶ It does not attempt to quantify the potential effect of the proposed introduction of charging for numbers in a pilot scheme in some area codes (see Section 4) or any other potential changes to our administrative processes for allocating geographic numbers (see Annex 5).

²⁶ The methodology used for our forecast model is explained in Annex 2 of this document and in more detail in Annex 2 of the November 2010 consultation.

- 2.59 In addition, the forecast will be affected by future events and influenced by many variables, including local developments, consumer demand, business decisions by individual CPs and the emergence of new applications and technologies.
- 2.60 The specific area codes and timeframe for where number supply measures prove to be necessary over the next ten years may therefore differ significantly from our forecast in Figure 2.1.

Figure 2.1 Areas forecast to run out of their current supply of numbers by the end of 2021



Guide to the remainder of this document

- 2.61 In this document we consider our approach to managing geographic numbers and safeguarding their ongoing availability. We consider stakeholders' responses to the September 2011 statement and consultation and, having taken those into account, we further develop our proposals for the management of geographic numbers.
- Section 3 looks at our forecast for number availability in the Bournemouth 01202 area code. We explain that we will run out of number blocks to allocate to CPs later this year and therefore must take action to increase the supply of 01202 numbers. We set out how we propose to do this by closing local dialling in the

01202 area code on 1 November 2012, and ask for stakeholder comments on the proposed date;

- Section 4 sets out our proposal to charge CPs for numbers to incentivise more efficient use. We set out our provisional conclusion that we will introduce charging in a pilot scheme covering 30 area codes with the fewest number blocks remaining available to allocate, and include the key features of the pilot scheme. In particular, we are consulting on new conditions in GC17 to bring number charging into effect;
- Section 5 explains our proposals for a limited roll out of smaller number blocks in the 11 areas with five-digit area codes. These are areas whose area code and local number structure provides a particularly small pool of numbers and which cover relatively small populations. We are proposing to delay the need for number supply measures in these area codes by making a limited number of smaller blocks of numbers (i.e. blocks of 100 rather than 1,000 numbers) available for allocation to CPs; and
- Section 6 summarises our proposals and next steps for managing geographic numbers. We include a timeline for potential implementation.

2.62 We have included a number of annexes to provide supplementary information, giving additional background and context to aid consideration of our proposals:

- Annex 1 provides background on geographic numbers to help stakeholders understand the proposals set out in this consultation. It summarises background information provided in the November 2010 consultation and the September 2011 statement and consultation;
- Annex 2 provides and analyses our updated forecast on number block availability across the UK and what this means for number supply;
- Annexes 3 and 4 provide further information on how our proposed pilot scheme for number charging would operate;
- Annex 5 covers stakeholders' comments on measures to strengthen our administrative processes for allocating geographic numbers in response to the September 2011 statement and consultation and sets out our response to the points raised;
- Annexes 6 to 8 set out the legal framework for this review and our proposed amendments to GC17 and the Numbering Plan;
- Annex 9 lists the respondents to the September 2011 statement and consultation; and
- Annexes 10 to 13 provide details on how to respond to this consultation.

Section 3

Closing local dialling in the Bournemouth 01202 area code

Introduction

- 3.1 In this section we look at the need to increase the supply of geographic numbers in the Bournemouth 01202 area code and to set the date for closing local dialling to provide additional 01202 numbers. This is necessary because the forecast demand for new numbers in the Bournemouth area exceeds the supply of numbers presently available for us to allocate by the end of this year. Closing local dialling will help to ensure that a sufficient supply of geographic numbers in the 01202 area code is maintained.
- 3.2 First we set out the decision that we reached in the September 2011 statement and consultation on the most appropriate solution to number block scarcity in four-digit area codes (i.e. area codes in the format '01XXX' such as the 01202 area code).
- 3.3 We then explain that the demand for numbers in the Bournemouth 01202 area code has resulted in scarcity of number blocks for us to allocate to CPs and why we need to address this situation now.
- 3.4 We set out our proposal to close local dialling in the 01202 area code on 1 November 2012, explain what this means for consumers and CPs and invite comments. Annex 7 sets out the proposed modifications to the Numbering Plan in order to implement this proposal.

Decision on increasing the number supply in four-digit area codes

- 3.5 In the September 2011 statement and consultation we set out our decision on how we would make more numbers available in four-digit area codes that are forecast to run out of their existing supply of numbers.²⁷ This action is necessary to ensure that a lack of number blocks to allocate to CPs does not constrain effective competition and consumer choice.
- 3.6 We concluded that the most appropriate solution to number block scarcity in any area with a four-digit area code was to:
 - close local dialling – meaning that local fixed-line users would need to dial the area code when calling local numbers. Closing local dialling would allow us to allocate new local numbers in which the first digit after the area code is either '0' or '1'; and
 - if, in the future, further numbers are needed in that area, we would introduce an overlay code – which would mean that two area codes would serve the same geographic area.

²⁷ We concluded that a different approach might be appropriate for five-digit area codes. This is further discussed in Section 5.

- 3.7 The above number supply measures are new to the UK. At present, local dialling is available in all area codes and we have not introduced any overlay codes. Our decision will not require changes to any existing phone numbers, either where local dialling is closed or where it may later prove necessary to introduce an overlay code. The cost of a local call is not affected by either measure (i.e. closing local dialling or the introduction of an overlay code has no effect on call charges).
- 3.8 We decided to implement number supply measures on a localised basis where required as we considered that this would provide a proportionate approach to the level of forecast number shortages. According to our forecast in September 2011, we predicted that around 12 per cent of the UK population live in areas that are expected to need an increase in the supply of geographic numbers by 2021.²⁸ (Our revised forecast for this document predicts that around 18 per cent of the UK population live in areas that are forecast to need an increase in the supply of numbers by 2021). We also expected that 35 per cent of the UK population live in areas that are not forecast to run out of numbers in the foreseeable future (i.e. areas with two- and three-digit area codes). In light of this forecast, we decided that it would be premature to introduce a UK-wide measure to address number shortage.
- 3.9 We considered different options for increasing the supply of numbers in four-digit area codes that were forecast to run out of numbers. We assessed options suggested in stakeholders' responses to the November 2010 consultation, including number change, sharing of numbers across area code boundaries and wide area codes, as well as the following two options put forward in the November 2010 consultation:
- Option 1 - to close local dialling and, if and when further new supplies of numbers are needed, to introduce an overlay code; and
 - Option 2 - to introduce an overlay code without closing local dialling. In this option, local dialling would continue to work if both the dialled number and the number from which the call was made shared the same area code. Otherwise, the full number, including the area code, would need to be dialled.
- 3.10 We took into account stakeholders' responses to the November 2010 consultation and the September 2011 statement and consultation, two sets of consumer research²⁹ and the views of consumers in local engagement meetings³⁰ in reaching our decision to proceed with Option 1 above.
- 3.11 We favoured the option that limits the extent of disruption that could be caused by increasing the supply of geographic numbers. We concluded that closing local dialling and, if and when further new supplies of numbers are needed, introducing an

²⁸ Based on data available as at 3 June 2011.

²⁹ Consumer research reports prepared by Futuresight on geographic numbers are *Geographic numbering and local dialling*, published November 2010 ('the 2010 consumer research') <http://stakeholders.ofcom.org.uk/binaries/consultations/geographic-numbers/annexes/numbering-futuresight.pdf> and *Geographic Numbering: Summary report of findings*, published 7 September 2011 ('the 2011 consumer research') <http://stakeholders.ofcom.org.uk/consultations/safeguarding-geographic-numbers/>.

³⁰ In February 2011, we held consumer engagement meetings in three areas – Bournemouth, Brighton and Langholm (near Dumfries) – to provide an opportunity to explain our number supply proposals for those areas and discuss these in detail with the local people that our plans would affect. We selected those areas as, at that time, they were the first area codes forecast to run out of number blocks to allocate to CPs.

overlay code was likely to be the best option for consumers, businesses and for competition between CPs. We summarise the key factors that led to our decision below:

- the combination of closing local dialling and the later introduction of an overlay code has the potential to increase the supply of geographic numbers well beyond the foreseeable future, and hence to make sure that the numbers that consumers and CPs want are available when they are needed;
- closing local dialling would retain the current location significance of all geographic numbers, and, before any overlay code may be introduced, would preserve the current association between an area and a single area code. It could also aid understanding of any future introduction of overlay codes, where this proves necessary, because dialling the full area code for local calls would have become normal practice. This may help reduce confusion around dialling behaviour for numbers within the same geographic area with different area codes (i.e. the original code and the overlay), particularly the longer the interval between the two stages;
- in addition, closing local dialling would defer the need for an overlay code, which is potentially more disruptive because it could affect the location significance of numbers for consumers both within and outside the affected areas. It also appears from our 2011 consumer research that consumers consider that closing local dialling would have a lower negative impact on them than an overlay code or a number change. Closing local dialling would defer the need for an overlay code and may therefore benefit consumers; and
- although we noted the potential for a significant impact on vulnerable consumers as a result of our preferred option, we considered that no option for increasing the supply of geographic numbers offered a clear advantage to vulnerable groups. However, doing nothing is not a viable option for area codes where geographic numbers are forecast to run out. In addition, we considered that the impacts could be mitigated by effective and targeted communication.

Stakeholders' comments on our decision on number supply measures for four-digit area codes

- 3.12 A few respondents to the September 2011 statement and consultation commented on our decision on number supply measures for four-digit area codes. We have considered the issues raised and concluded that no new points were introduced and our decision remains unaffected by those submissions.
- 3.13 In summary, Mr C Stuart and 'Name Withheld 1' were concerned that localised number supply measures resulting in a hybrid closed/open dialling plan with overlay codes would be more confusing for consumers than closing local dialling across the UK. Mr Diamond considered that there was no need to increase the supply of geographic numbers, rather a need to address CPs' inefficient use of numbers and their failure to invest in next generation technology.
- 3.14 In response, we maintain that local dialling is a useful facility for consumers and worth preserving in area codes where there is no need for its removal to respond to number supply requirements. We recognise that closing local dialling across the UK would reduce the scope for confusion when people move between area codes in which local dialling is enabled and those in which it is closed. We considered closing

local dialling on a UK-wide basis in the September 2011 statement and consultation³¹ but decided it would not be proportionate to introduce a UK-wide measure to address issues of local number exhaustion because it would impact on people living in areas that would otherwise not require measures to increase the supply of geographic numbers for the foreseeable future.³²

- 3.15 Nevertheless, if the trend for number shortage were to result in many area codes requiring local dialling to be closed, it might make sense to consider a UK-wide approach to closing local dialling at some point in the future. Therefore, our decision to close local dialling on a localised basis is still consistent with the possibility of UK-wide closure of local dialling in the future if that becomes appropriate (for instance, if consumer confusion become apparent, a significant number of area codes had closed local dialling or the local dialling facility was no longer used by consumers to any great extent or regarded by consumers as worth retaining).
- 3.16 We agree with Mr Diamond that strengthening administrative processes to improve utilisation of allocated numbers should be promoted as a means of delaying number supply measures and this is fundamental to our approach of managing geographic numbers through a package of complementary measures. As set out in Section 4, we are proposing to introduce number charging in a pilot scheme in 30 area codes with the fewest number blocks remaining available for allocation to incentivise efficient use of numbers. Also, in Section 5, we set out our proposal for a limited roll out of smaller number blocks to improve utilisation in 11 areas with five-digit area codes. We regularly audit CPs on allocated number use and encourage the return of unused number blocks. We are also preparing to consult on a number reservation step in the allocation process that will test applicants' operational readiness to use the numbers for which they are applying and on changes to the forms that CPs must complete when applying for the allocation of numbers in order to elicit more information on which to base our number allocation decisions.
- 3.17 On the future implementation of overlay codes, we note the suggestion from Colt as summarised in the September 2011 statement and consultation,³³ and Virgin Media in its response to that consultation, that we should let CPs choose between the allocation of a block of 1,000 numbers from the original area code and the allocation of a block of 10,000 numbers from the overlay code. Virgin Media commented that a larger block would be useful for providing numbers to some business customers (particularly large public sector companies such as councils and healthcare providers) that place less value on location significance than residential and small business customers, and would therefore have fewer concerns over using the less familiar area code. We will give this further consideration when we consult on how we introduce overlay codes in the future.

³¹ See paragraphs 4.32 to 4.51 of the September 2011 statement and consultation.

³² Our forecasts still show that around 82 per cent of the UK population live in areas that are unlikely to need number supply measures within the next ten years. When weighed against the potential for consumer confusion if different rules applied to local dialling, we still consider that requiring 82 per cent of the population to dial the full number before the end of 2021, when the need to do so is not related to the requirement for more numbers, would not be a proportionate response. Also we consider it prudent to close local dialling in a few area codes initially rather than across the entire UK to facilitate a smooth operation.

³³ Footnote 89 in paragraph 4.112 of the September 2011 statement and consultation.

Developments since the publication of the September 2011 statement and consultation

Closing local dialling industry group

- 3.18 Following the publication of our decision on increasing the supply of numbers in four-digit area codes in the September 2011 statement and consultation, we have been working with CPs on plans for implementing the closing of local dialling in area codes forecast to require additional numbers.
- 3.19 As mentioned in the September 2011 statement and consultation, we recognise the need to work with industry to develop a detailed implementation plan for closing local dialling in an area code that would include:
- an effectively coordinated and targeted communications campaign;
 - notice periods for the closing of local dialling in an area code (both for industry implementation and consumer awareness);
 - the guidelines for automatic responses to misdials (that is, to trap misdialled calls and play a non-charged message instructing callers to redial including the area code);
 - direct consultation with consumers in the affected areas, including awareness raising initiatives and identification of any potential times to avoid closing local dialling; and
 - any other relevant aspects of implementation that may be raised by local stakeholders.
- 3.20 We formed an industry group in November 2011 to take this forward, known as the 'Closing local dialling industry group' ('the industry group'). We invited 15 CPs to attend, covering those with the most geographic number allocations, fixed line customers and largest market shares of fixed line call origination. The Federation of Communication Services (FCS) was also invited to participate. The industry group is focusing solely on the tasks required to implement closing local dialling. It aims to review these terms of reference by 30 June 2012, and any proposed change to this remit would be communicated to industry. Decisions made by the industry group are sent periodically to a wider communication list covering all CPs with geographic number allocations.
- 3.21 The first task of the industry group was to consider the imminent requirement for more numbers in the Bournemouth 01202 area code, given our forecast that number blocks for Ofcom to allocate would run out during 2012. It agreed with Ofcom that plans for closing local dialling in the 01202 area code needed to be progressed and that we should consult on an appropriate date on which to close local dialling.

Why we are closing local dialling in the Bournemouth 01202 area code

- 3.22 As set out earlier in this section, we concluded in the September 2011 statement and consultation that we will close local dialling in four-digit area codes where we forecast that we will run out of available numbers. We now consider implementing this policy in the first area code to require this measure – the Bournemouth 01202 area code.

- 3.23 Our supply of 01202 number blocks for allocation to CPs is now very limited at only 16 blocks of 1,000-numbers available as at 21 January 2012. Our forecast indicates that we will run out of 01202 number blocks to allocate to CPs towards the end of this year. This does not present a risk to the availability of numbers for consumers' use as there are sufficient numbers already allocated to CPs to provide services to consumers. However, if we do not make additional number blocks available, we may constrain CPs' ability to compete to provide services to consumers and limit consumers' choice of CP for new services.
- 3.24 Since numbers in the Bournemouth 01202 area code will run out soon, it is time to consult on a date for closing local dialling in that area code.³⁴ We discuss the factors that led to our proposed date of 1 November 2012 for closing local dialling in paragraphs 3.27 to 3.35 below.
- 3.25 Closing local dialling would make available for use local numbers beginning with the digits '0' and '1' (i.e. numbers in the format 01202 0XXXXX and 01202 1XXXXX). Dialling the area code before the local number ensures that phone networks do not confuse the new supply of local numbers with other number types and can determine how to route the call. Without the area code, networks may not be able to determine whether a caller dialling a six-digit number starting with '0' is intending to call a local fixed-line number or, for example, a mobile number (e.g. 07XXXX could either be a local number or the first digits of a mobile phone number). Similarly, if the area code is not dialled before a local numbering beginning with '1', telecoms networks could interpret the first few digits as either a local number or a call to an operator service such as '100' or '150', a network service such as '1471' or a service number such as a '118XXX' directory enquiry number.
- 3.26 By making local numbers beginning with '0' and '1' available for use, we increase our supply of numbers in the 01202 area code by 194,000 numbers. These numbers would then be available to allocate to CPs in 194 blocks of 1,000 numbers. We predict that this increase in 01202 number blocks will be sufficient to meet demand for around nine years based on the current average allocation rate.³⁵ This forecast may vary for a number of reasons, including the possible effect from any policy changes, such as charging for numbers in the 01202 area code (see Section 4). Further demand for numbers in the Bournemouth area would be met through the introduction of an overlay code.

Why we are proposing 1 November 2012 as the date from when local dialling will be closed in the Bournemouth 01202 area code

- 3.27 As set out above, we have identified a need to increase the supply of 01202 numbers as we forecast running out of available blocks to allocate to CPs later this year. We have worked with the industry group to identify an appropriate date on which to close local dialling in the 01202 area code in order to meet the need for more numbers. The industry group took the following into consideration:
- reasonable timescales for communicating the change in dialling behaviour to consumers in the 01202 area code;

³⁴ We are working with CPs on establishing a general trigger point for implementing number supply measures in the future. In the absence of an agreed trigger point, we consider that a period of less than a year before numbers are forecast to run out is a definite indication that planning for closing local dialling is required.

³⁵ Further information on our forecast and data analysis is provided in Annex 2.

- additional considerations relating to communicating the change in dialling behaviour to older and vulnerable consumers;
- the time required by CPs to implement the change in their networks;
- the need to avoid certain timeframes due to:
 - local or national events that may dilute consumer awareness communications;
 - any freezes on amendments to telecoms networks set by CPs to avoid overloading;
 - unsuitable times of year to introduce changes to the way people use their fixed-line telephone; and
- the need to act as soon as practicable to avoid a lack of available 01202 number blocks restricting CPs' ability to compete for new customers.

3.28 The industry group decided to consider the factors for proposing when to close local dialling in the 01202 area code specifically rather than agreeing a general approach for future area codes at this time. Different factors and timeframes may be considered when determining proposals for other area codes as i) there may be a longer lead time before number blocks are forecast to run out and ii) the industry group will be informed by the experience of closing local dialling in the 01202 area code.

3.29 The industry group examined experience of previous consumer awareness campaigns relating to changes to telephone numbers and considered that communications campaigns have the biggest impact when they are conducted close to the date of the required change. Experience also showed that consumers are less likely to act on the required change until the point that they no longer have a choice (i.e. in the case of closing local dialling, consumers may be aware that the area code needs to be dialled but will not make changes to their dialling behaviour until the local dialling facility is withdrawn). Nevertheless, a sufficient lead time to communicate that a change is to occur is still required. For example, this would be needed by private branch exchange (PBX) maintainers in order to schedule any necessary visits to customers' locations to make changes to the routing arrangements on Customer Premises Equipment (CPEs).³⁶ The industry group considered that a year's lead time between consulting on an appropriate date and closing local dialling would be ideal but not an absolute requirement and that six months was likely to be sufficient.

3.30 We have considered the need for additional time to ensure adequate communication reaches all groups of citizens and consumers. We have looked in particular at the requirements of older and vulnerable consumers, so that they (and those that care for them) have time to make any necessary changes, such as reprogramme fixed telephone autodials to numbers that have been saved without the area code. However, we understand from preliminary discussions with representative groups (including Age UK and the Advisory Committee for Older and Disabled people (ACOD)) that a longer lead time is not as important as the breadth of coverage and consistency of message planned.

³⁶ Customer Premises Equipment (CPE) is a telecommunications hardware device located on the customer's premises.

- 3.31 In the September 2011 statement and consultation, we noted CPs' comments that the timescales required for network implementation were likely to be a CP-specific issue and that we would need to discuss requirements with individual CPs. Therefore, in a pre-consultation exercise, we contacted all CPs with geographic number allocations from Ofcom and asked if 28 October 2012 (plus or minus three days) would be an achievable and suitable date for closing local dialling in the Bournemouth 01202 area code. We received responses from eight CPs – all agreed that the proposed timeframe was acceptable.
- 3.32 In considering a suitable timeframe for the question above, we considered it appropriate to avoid August and September 2012 as a clash with the Olympic and Paralympics Games may mean that communication on closing local dialling would be diluted and call traffic on CPs' networks is likely to be greater than normal. We also wanted to avoid December as many CPs implement network amendment freezes at that time.
- 3.33 We contacted the local council, community groups and other local stakeholders in the area covered by the 01202 area code to assess the suitability of 28 October 2012 (plus or minus three days) and found no objections.
- 3.34 We also asked CPs whether they had any preferences for the day of the week and/or time of day on which closing of local dialling occurred. Following views expressed by CPs and discussion at the industry group, it was considered that:
- CPs should close local dialling on a single calendar day to avoid consumer confusion arising from an inconsistent approach and to aid communication;
 - there should be a limited 'window' during which CPs can make the change to their network to close local dialling and provide a mis-dial message that consumers will hear if they dial a local number without the area code;
 - the window for closing local dialling should be between 00:01 hours and 12:00 hours to allow for CPs that prefer to make the change during or outside of office hours; and
 - closing local dialling on a weekday may make it easier for CPs to react to any unforeseen impact from closing local dialling as more engineers, customer-facing employees and any other support staff required would be available to respond.
- 3.35 Taking the above factors into account, we have decided that Thursday 1 November 2012 would be an appropriate date on which to propose closing local dialling in the 01202 area code.

Implementing the closing of local dialling in the Bournemouth 01202 area code

- 3.36 We have worked with the industry group on determining CPs' processes for closing local dialling in the 01202 area code. There are two main areas for consideration – the technical implementation in networks and communication of the change in dialling behaviour to consumers.

Closing local dialling framework document

- 3.37 We are working with the industry group to set out the detailed implementation process for closing local dialling in a framework document that will be used as a reference and 'best practice' guide for CPs. The framework document is being drafted in coordination with the industry group and will be owned and maintained by Ofcom.
- 3.38 The framework document will provide CPs with the technical details required for closing local dialling and the process for ensuring a coordinated consumer communications campaign. Among other things, the document will include recommended wording for mis-dial announcements, plus the logo and agreed text to be used in consumer communications to ensure consistent messages are provided by the different CPs.
- 3.39 The framework document will be made available to CPs with geographic number allocations during the consultation period of this document. Having taken into account any comments received during that period, we plan to make a version of the framework document available on our website following the publication of our statement on closing local dialling in the Bournemouth 01202 area code.

Proposed modifications to the Numbering Plan to close local dialling in the Bournemouth 01202 area code

- 3.40 The Numbering Plan contains the following obligation relating to local dialling in 'Part B3: Specific Restrictions on Telephone Numbers':

"Local Dialling

B3.1.3 Geographic Numbers shall not be Adopted or otherwise used other than where End-Users from Geographic Numbers in the same geographic area as the Called Party are able to use only the Subscriber Number (except where those numbers are National-Dialling-Only Numbers – see B3.1.5 below)."

- 3.41 In order to close local dialling in the 01202 area code, we need to remove the above obligation on CPs in relation to the adoption and use of 01202 numbers.
- 3.42 In submissions to the September 2011 statement and consultation, BT questioned whether the requirement to provide local dialling should be retained in the Numbering Plan. BT made this suggestion in light of the increasing prevalence of Voice over Internet Protocol ('VoIP') services which do not always facilitate local dialling and in recognition of consumers' views that local dialling is a useful but not essential facility in our 2010 consumer research report. Colt preferred that the obligation be removed for all area codes and not just those where closed local dialling is regulated.
- 3.43 In our response in the September 2011 statement and consultation,³⁷ we acknowledged that the configuration of some CPEs does not provide for the local dialling facility. When considered alongside the increase in calls from mobile phones (where local dialling is also not permitted) we agreed that consumers are already becoming accustomed to dialling the area code. Nevertheless, we considered the local dialling facility to be useful and welcomed by consumers and we did not anticipate removing the overall obligation on CPs in the Numbering Plan to provide this facility. However, we agreed to consider this further when we consulted on the

³⁷ See paragraph 4.95 of the September 2011 statement and consultation.

modifications to the Numbering Plan to remove the requirement to provide the local dialling facility in relation to certain area codes.

- 3.44 As we now need to consult on removing CPs' obligation to provide local dialling in the 01202 area code, we have considered again the case for removing the obligation entirely from the Numbering Plan. We note that some of the reasons why we considered that closing local dialling was the least disruptive number supply measure might also support arguments for removing CPs' obligation to provide the local dialling facility and instead allow the provision to be a commercial decision.³⁸ In addition, as noted by BT and Colt in their submissions, not all CPs adhere to this obligation currently (most notably VoIP providers who can not necessarily provide the local dialling facility to nomadic services).
- 3.45 We do not know how CPs would respond if we removed the general obligation to provide local dialling to their customers. It may be that CPs would continue to provide it regardless of any obligation to do so. However, if we retain the general obligation to provide local dialling on adopted numbers and remove from this obligation only area codes where action is required to increase the supply of numbers, consumers would generally be assured of the option of dialling without the area code for the vast majority of local fixed-line calls in the vast majority of area codes.
- 3.46 As we consider that local dialling is a useful facility for consumers and worth preserving where there is no need to restrict it due to number supply requirements, we do not consider it appropriate to remove the obligation from the Numbering Plan. Instead we propose to add the following clause (shown in bold text) to Part B.3.1:

B3.1.3 Geographic Numbers shall not be Adopted or otherwise used other than where End-Users from Geographic Numbers in the same geographic area as the Called Party are able to use only the Local Number³⁹ except where:

- (i) those numbers are National-Dialling-Only Numbers – see B3.1.6 below; or
(ii) End-Users are from Geographic Numbers in the 01202 Geographic Area Code after 1 November 2012.

- 3.47 We set out the proposed modification to the Numbering Plan in relation to closing local dialling in the Bournemouth 01202 area code in Annex 7. We invite stakeholders to comment⁴⁰ on the proposed modification and our proposal to maintain the obligation on CPs to provide local dialling except in the 01202 area code. Further area codes requiring the closing of local dialling as a number supply measure would be added as exceptions subject to consultation.

Making the new 01202 numbers available for allocation to CPs

- 3.48 Closing local dialling will make numbers in the format 01202 0XXXXX and 01202 1XXXXX available for allocation. We have worked with CPs to identify any particular order in which these numbers should be released to limit the impact from potential misdials as consumers become accustomed to the closing of local dialling. In particular, we want to avoid releasing number blocks initially that could potentially

³⁸ Consumer research in 2010 and 2011 found local dialling to be a useful rather than necessary facility; the rise in calls from mobile phones (which require the dialling of the whole number) means consumers are increasingly becoming used to dialling the area code.

³⁹ We also propose to amend "Subscriber Number" to "Local Number" in B3.1.3 to meet the correct definitions in the Numbering Plan.

⁴⁰ See Question 1 at the end of Section 3.

result in misdialled calls to short codes and service numbers, especially where such misdials might result in connection and generate a call charge.⁴¹

- 3.49 The digit '0' is used to denote a national or international call, in that '0' forms the first digit of an area code and '00' is the standard international call prefix. The digit '1' is used for short codes to provide access to certain services or for network routing. Some of the services accessed via short codes are subject to a call charge (for instance 118XXX directory enquiry services) or provide access to emergency services (i.e. '112') or services of social value (i.e. 116XXX harmonised European services of social value).
- 3.50 With this in mind, we propose to release number blocks where the local number starts with '0' first as these do not clash with any short codes and therefore misdials would not connect to a chargeable service or impact emergency or social value services. The release of 01202 0XXXXX numbers should, according to our forecast, meet CPs' demand for around five years and would allow consumers time to become accustomed to the change in dialling behaviour required following the closing of local dialling.
- 3.51 We propose to first release numbers beginning with 01202 04XXXX and 01202 06XXXX. This is because number ranges beginning with '04' and '06' are not currently in use and therefore release of those numbers first further prevents potential misdials as consumers adjust to the change in dialling behaviour.
- 3.52 Once the supply of local numbers beginning with '0' is allocated, we would release number blocks where the local numbers start with '1' and which do not clash with existing service and routing code numbers. Finally, and following discussion with CPs, we would consider the release of local numbers that start with '1' which might clash with existing short codes and service numbers. However, we do not propose to make blocks of local numbers available where a misdial without the area code would result in a call to an emergency service (i.e. local numbers beginning with '112'); a harmonised number for services of social value (i.e. local numbers beginning with '116') or could generate a high charge if connected in error (e.g. local numbers beginning with '118').
- 3.53 Number blocks beginning 01202 0XXXXX that are available for allocation to CPs will be shown on the numbering database on our website.⁴² We will set out when we will make those numbers available for allocation and how we will invite applications, should this differ from our usual 'first come first served' process, in our concluding statement.

Communications campaign

- 3.54 Closing local dialling requires a change to consumers' dialling behaviour from fixed-line telephones, in that the whole telephone number must be dialled for every call, including to another number with the same area code. Therefore consumers need to be made aware that a change is forthcoming and what they need to do to adapt to that change.

⁴¹ Short codes and routing codes are listed in the Numbering Plan (Part A1 Public Telephone Network Numbers) and in the annex to GC17.

⁴² The National Numbering Scheme database provides a day-to-day record of number block status. It is available on our website at <http://stakeholders.ofcom.org.uk/telecoms/numbering/telephone-no-availability/numbers-administered/>.

- 3.55 As well as changing dialling behaviour, residential and business consumers may need to make other changes. For instance, auto-dial numbers stored on telephones in the local format would need to be reprogrammed. Also, if local 01202 numbers are published or otherwise advertised without the area code, then consideration will need to be given by the end user to changing the format to include the area code to prevent confusion, misdials and lost calls.
- 3.56 For the Bournemouth 01202 area code, Ofcom will coordinate a public communications campaign to alert the wider community covered by the 01202 area code of the change to dialling behaviour required. We will define the necessary characteristics of an effective communications campaign and ensure that this is coordinated and delivered in an appropriate and consistent manner to local citizens, taking into account the particular needs of vulnerable consumers
- 3.57 CPs will be responsible for funding and directly communicating the changes to their own customers. The framework document mentioned in paragraphs 3.37 to 3.39 will set out a 'best practice' approach for CPs' communication with their customers.

Preliminary conclusions on 1 November 2012 as the date for closing local dialling in the 01202 area code

- 3.58 Our forecast for the 01202 area code shows that we will run out of new 01202 numbers to allocate to CPs later this year. This may impact competition and consumer choice. We therefore need to make additional 01202 numbers available to meet CPs' requirements.
- 3.59 We reached a decision on the most appropriate option for increasing the supply of geographic numbers in four-digit area codes in the September 2011 statement and consultation after taking into account stakeholders' views and the findings of the 2010 and 2011 consumer research. This consultation covers implementing that decision in the Bournemouth 01202 area code on 1 November 2012 only and does not revisit the decision on the number supply measure to be used.

Duties and legal tests

- 3.60 In order to implement the closing of local dialling in the Bournemouth 01202 area code, we need to consult on modifications to the Numbering Plan⁴³ in order to:
- amend the obligation in Part B3.1.3 on CPs to provide the local dialling facility to callers in all geographic area codes by removing the 01202 area code from this obligation;
 - prevent local dialling from being provided from geographic numbers in the 01202 area code; and
 - bring the above modifications into effect from 1 November 2012.
- 3.61 We looked at how the decision to close local dialling in an area code would likely meet Ofcom's duties and relevant legal tests in the Act in the September 2011 statement and consultation.⁴⁴ We now consider our proposals for closing local dialling in the Bournemouth 01202 area code from 1 November 2012 to increase the supply

⁴³ Annex 6 sets out the procedure in the Act for consulting on modifications to the Numbering Plan.

⁴⁴ See Section 4 paragraphs 4.226 to 4.230 of the September 2011 statement and consultation.

of numbers available with respect to Ofcom's duties and the relevant legal tests in the Act.

3.62 We consider that our proposal is consistent with our general duties in carrying out our functions as set out in section 3 of the Act.⁴⁵ In particular, we consider that the decision furthers the interests of citizens in relation to communications matters and consumers in relevant markets by ensuring that sufficient geographic numbers remain available for allocation to CPs in the 01202 area code, thus facilitating CPs in their provision of communications services to consumers and citizens, and promoting competition and choice for consumers in the area covered by the 01202 code.

3.63 In reaching our proposal, we have also taken into account the Community obligations set out in section 4 of the Act, particularly the first requirement to promote competition in the provision of electronic communications networks, services and associated facilities through the ongoing availability of geographic numbers in all areas of the UK and by addressing forecast scarcity.

3.64 We are proposing a modification to the Numbering Plan in order to implement this measure from the proposed date of 1 November 2012. Section 60(2) of the Act provides for the modification of documents referred to in the Numbering Conditions (which includes the Numbering Plan). Under section 60(2) we may only modify the Numbering Plan if we are satisfied that the revision is:

- objectively justifiable in relation to the matter to which it relates;
- not such as to discriminate unduly against particular persons or against a particular description of persons;
- proportionate to what the modification is intended to achieve; and
- in relation to what is intended to achieve, transparent.

3.65 We consider that the proposal to close local dialling in the Bournemouth 01202 area code on 1 November 2012 to increase the supply of local numbers would meet these tests in the following manner:

- **objectively justifiable**, in that the European electronic communications framework states that "Member States shall ensure that adequate numbers and numbering ranges are provided for all publicly available electronic communications services" and Ofcom are specifically required to secure the availability throughout the UK of a wide range of electronic communications services under section 3(2)(b) of the Act.⁴⁶

Without taking measures to increase the supply of 01202 number blocks for allocation to CPs, we are at risk of running out of numbers to serve the area covered by that area code. This may have the effect of constraining competition and consumer choice in service provision. Our approach to increasing the supply of geographic numbers provides a long-term plan for ensuring the ongoing availability of numbers in all areas in a manner that recognises local requirements and causes the least disruption for consumers;

⁴⁵ See Annex 6 for further information on our duties and the legal tests.

⁴⁶ European electronic communications regulatory framework: Framework Directive Article 10(4).

- **not unduly discriminatory**, in that our analysis of the appropriate date for closing local dialling in order to increase the supply of geographic numbers recognises the different impacts on consumers, businesses and CPs. We conducted a pre-consultation exercise with local stakeholders and CPs to assist in establishing an appropriate date and feasible timescale for implementation. We consider that the proposed date of 1 November 2012 to close local dialling in the 01202 area code would not unduly discriminate against any particular groups of stakeholders and we are seeking views through this consultation to determine this position;

Our approach in implementing number supply measures only in area codes that require more numbers (i.e. the 01202 area code only at this time) would result in changes in some areas of the UK only (and thereby affecting some consumers and businesses and not others). This is not considered to be unduly discriminatory as it is a response to the different situations regarding number availability that prevail in those areas and is intended to minimise disruption to UK consumers as a whole;

Closing local dialling requires a change in dialling behaviour and this would be applicable to all who dial numbers locally in an area where the local dialling facility was removed. This may affect consumers differently and the level of impact of removing the local dialling facility may vary across consumer groups. Our 2010 consumer research found that half of consumers aged 55 or over valued local dialling as opposed to just over 30 per cent aged between 25 to 44 years.⁴⁷

Closing local dialling may also have a greater impact on vulnerable consumers. These consumers may be less exposed to communications campaigns and may find the required change in dialling behaviour confusing.

However, any measure to increase the supplies of geographic numbers would likely have a greater impact on older and vulnerable consumers and there are actions that can be taken to mitigate the risks identified, particularly involving the way that closing local dialling is communicated to consumers and to specific groups of consumers. Ofcom is coordinating the communications campaign and will take this into account;

proportionate, in that it is the general objective of our management of geographic telephone numbers to ensure that geographic numbers are available to support competition in fixed-line voice services across the UK for the foreseeable future. The policy principles that guide how we meet this objective are that:

- the numbers consumers want are available when they are needed;
- the numbers consumers currently use are not changed if this is avoidable;
- the meaning which numbers provide to consumers is protected;
- number allocation processes support competition and innovation; and
- consumers are not avoidably exposed to abuse.

⁴⁷ 2010 consumer research report prepared by Futuresight on geographic numbers *Geographic numbering and local dialling*, published November 2010 ('the 2010 consumer research') <http://stakeholders.ofcom.org.uk/binaries/consultations/geographic-numbers/annexes/numbering-futuresight.pdf>. See page 10.

The proposed modifications to the Numbering Plan in relation to closing local dialling in the Bournemouth area code 01202 from 1 November 2012 are needed to implement our decision on how to increase the supply of geographic numbers in four-digit area codes forecast to run out. These modifications would enable the meeting of our objective to ensure that geographic numbers are available in areas when needed and would be in line with our stated policy principles and approach on number supply measures as set out in the September 2011 statement and consultation and reflected in Section 2 of this document.

We have consulted CPs on the potential costs and timescales involved in closing local dialling in an area code.⁴⁸ Responses suggested that while these are likely to be determined by the size and type of network employed by the CP and therefore may vary considerably, the costs and timing of implementing closing local dialling were not thought to prohibit closing local dialling as the most appropriate and proportionate option for increasing the supply of numbers in area codes forecast to run out;

transparent, in that our reasoning for our decision on how to increase the supply of geographic numbers in areas with four-digit codes through closing local dialling, and thereby support competition in fixed-line services across the UK for the foreseeable future, is set out in the September 2011 statement and consultation.

In this document we have explained that our forecast predicts that we will run out of 01202 numbers later this year. We therefore need to make additional number blocks available in accordance with our decision on how to increase the supply of numbers in four-digit area codes.

3.66 In addition, we consider that our proposal to modify the Numbering Plan to close local dialling in the Bournemouth 01202 area code in order to increase the supply of numbers fulfils our general duty as to telephone number functions as set out in section 63 of the Act by:

- **securing the best use of appropriate numbers**, in that the decision to close local dialling in the Bournemouth area code from 1 November 2012 would make 194,000 additional 01202 numbers available for use. These numbers are already in existence but are not available for general use while local dialling is permitted. This measure would make best use of currently unusable numbering resource by making it available to fulfil demand; and

encouraging efficiency and innovation, in that our decision would make available more numbers in the 01202 area code in response to our forecast exhaustion this year. The additional supply of 01202 numbers would ensure that a lack of numbers does not constrain CP activity or provide a barrier to innovation.

*Question 1: Do you have any comments on:
i) our proposal to close local dialling in the Bournemouth 01202 area code on 1 November 2012;*

⁴⁸ See questions 11 and 12 in the November 2010 consultation and the summary of responses to those questions in the September 2011 statement and consultation in paragraphs 4.186 to 4.193 and paragraphs 4.208 to 4.221.

ii) our view as to how the proposed modification to the Numbering Plan in relation to closing local dialling in the 01202 area code on 1 November 2012 meets the relevant legal tests in section 60(2) of the Act; or
iii) the proposed modification to the Numbering Plan in relation to closing local dialling in the 01202 area code (set out in Annex 7)?

Section 4

Charging for geographic numbers

Introduction

- 4.1 In this section we discuss in detail our proposal to charge CPs for geographic numbers in specified areas to incentivise more efficient number use. We set out our provisional conclusion that we will introduce charging in a ‘pilot scheme’ covering 30 area codes and describe the key features of the scheme, including the approach to deal with numbers used under a regulated arrangement (see Annex 3) and the administration of the scheme (see Annex 4). In particular, we are consulting on amendments to GC17 (specifically, the setting of new conditions) to bring the scheme into effect.
- 4.2 Our stocks of geographic numbers in certain area codes are limited and, if nothing changes, we forecast that we will run out of new numbers to allocate to CPs in 45 area codes by the end of 2021, and in a growing number of area codes thereafter. This would likely have an adverse impact on competition and consumers’ choice of service providers.
- 4.3 We have developed a package of measures to ensure the ongoing availability of geographic numbers across the UK, including closing local dialling in the Bournemouth 01202 area code (and other area codes where it becomes necessary) and allocating numbers in 100-number blocks in 11 five-digit area codes. These measures are discussed in Sections 3 and 5 of this document respectively.
- 4.4 Another measure that we consider necessary is the introduction of number charges for geographic numbers allocated to CPs. In summary, the rationale for such an approach is to provide CPs with an incentive to use numbers more efficiently,⁴⁹ thereby improving their management of numbers and delaying or avoiding the need for number supply measures and their associated costs.⁵⁰
- 4.5 We consulted in November 2010 and September 2011 on proposals to introduce charging in a limited number of area codes with the fewest number blocks remaining available for allocation. We considered that the pilot scheme would help us to understand the impact of charging on CPs and consumers and to inform any subsequent decision on the role of number charging in the future.
- 4.6 The September 2011 statement and consultation refined our proposals as set out in the November 2010 consultation. We amended the criteria to determine which area codes would be included in the pilot scheme and discussed how to simplify the pilot scheme for situations where numbers allocated to one CP are used by another CP as a result of compliance with regulatory arrangements.
- 4.7 Taking account of stakeholders’ responses to the September 2011 statement and consultation, we have now reached the provisional conclusion that we will introduce charging in a pilot scheme covering 30 area codes (see further ‘Summary of the proposed pilot scheme’ at paragraphs 4.16 to 4.19).

⁴⁹ As required by GC17.6.

⁵⁰ For example, the closing local dialling or the introduction of overlay codes.

- 4.8 We propose that the pilot scheme will be implemented by way of amendments to GC17 (and specifically, the setting of new conditions) which specify (i) CPs' obligations, which apply to all CPs who have number allocations in pilot scheme area codes; (ii) the method for calculating the number charge; and (iii) the area codes included in the scheme. The proposed amendments are set out at Annex 8 (Notification of proposals for a modification to the Numbering Condition).
- 4.9 The consultation document (and this section in particular) sets out the reasons for setting new conditions and their expected effects as required by section 48A(3) of the Act. Stakeholders can make representations about this proposal by 2 May 2012, which is more than one month following the date of the publication, as required by section 48A(4).
- 4.10 The analysis and reasoning presented throughout the document and this section in particular also constitutes the impact assessment, as defined in section 7 of the Act, for the proposal to introduce charges for geographic numbers allocated to CPs in certain area codes. As indicated above, the anticipated benefits, in summary, are to incentivise CPs to use their allocated numbers more efficiently, and, by doing so, to delay the need for number supply measures and their associated costs.
- 4.11 In addition to inviting feedback on the proposed amendments to GC17, we are looking to receive comments on the following outstanding aspects of the pilot scheme:
- (i) our preferred approach to allow a discount in charges for numbers allocated to one CP but used by another under a regulated arrangement, including the calculation of the discount (see paragraphs 4.127 to 4.133 below and Annex 3); and
 - (ii) the details of implementation of the pilot scheme (see Annex 4).

Ofcom's powers and duties⁵¹

- 4.12 In addition to our general duties under sections 3 and 4 of the Act, Ofcom has a duty under section 63(1) of the Act in carrying out our telephone numbering functions to secure that the best use is made of numbers and to encourage efficiency and innovation for that purpose. Ofcom's power to introduce charging for the allocation of geographic numbers is based principally on section 58(1)(g) of the Act, which provides that Ofcom may require payments in respect of the allocation of telephone numbers through a General Condition.
- 4.13 As regards the setting of new conditions, the relevant test for doing so is set out in section 47(2) of the Act. It provides that the Condition (or modification) must be objectively justifiable,⁵² non-discriminatory, proportionate and transparent. The discussion in this section (including stakeholders' comments and Ofcom's response) explains how our proposal to charge for numbers meets the test in section 47(2). The section is structured as follows:

⁵¹ Also see paragraphs 2.24 to 2.27, 6.20 to 6.27, 6.131 to 6.136 and Annex 6 of the November 2010 consultation and paragraphs 3.21 to 3.24, 6.264 to 6.270 and Annex 7 of the September 2011 statement and consultation.

⁵² Pursuant to section 47(3) of the Act, section 47(2) no longer requires that in setting a condition (as opposed to modifying a condition) Ofcom must be satisfied that it is objectively justifiable. However, as was the case in the 2010 and 2011 consultations, for completeness, we have considered whether the proposed pilot scheme is objectively justifiable.

- (i) summary of the proposed pilot scheme;
 - (ii) rationale for number charging;
 - (iii) area codes included in the pilot scheme;
 - (iv) impact of the pilot scheme on CPs; and
 - (v) impact of the pilot scheme on consumers.
- 4.14 This section also presents those issues which do not form the basis of our provisional decision to introduce charging but which are relevant to the proposal:
- (vi) implementation period for the pilot scheme;
 - (vii) assessment of the pilot scheme;
 - (viii) revenues from the pilot scheme; and
 - (ix) other stakeholder comments.
- 4.15 Annex 3 sets out our preferred approach to give a discount for number charges when the CP using the number is different from the range holder as a result of compliance with a regulatory arrangement, and how such a discount would be calculated. Annex 4 explains in detail how the pilot scheme would be implemented, and Annex 8 includes our proposed drafting amendments to GC17.

Summary of the proposed pilot scheme

- 4.16 Taking account of responses to our previous consultations, we have concluded, provisionally, that charging for geographic numbers should be introduced on the basis set out below.
- 4.17 The proposed charge will:
- apply per geographic number allocated in specified pilot scheme area codes;
 - apply whether or not the number is used to provide a service to an end consumer;⁵³
 - apply both to numbers in blocks already allocated and to numbers in newly allocated blocks;⁵⁴ and
 - be a daily charge of £0.1/365 per number (i.e. 10 pence per number per year), for each day on which a CP holds the allocation of that number, and be billed in arrears on an annual basis.⁵⁵
- 4.18 Further:

⁵³ Discussed in paragraph 6.31 of the November 2010 consultation and paragraphs 6.60 to 6.71 of the September 2011 statement and consultation.

⁵⁴ Discussed in paragraphs 6.32 to 6.40 of the November 2010 consultation and paragraphs 6.77 to 6.83 of the September 2011 statement and consultation.

⁵⁵ Discussed in paragraphs 6.48 to 6.65 of the November 2010 consultation and paragraphs 6.143 to 6.175 and A6.6 to A6.11 of the September 2011 statement and consultation.

- a CP may obtain a discount to its bill for numbers allocated to it but where such numbers are used by a different CP under a regulatory arrangement (but not under a commercial arrangement such as sub-allocation) (see paragraphs 4.127 to 4.133 and Annex 3);
 - the area codes included in the pilot scheme comprise the 30 area codes in the UK with the fewest number blocks remaining to be allocated (see paragraphs 4.76 to 4.109 and Annex 4);
 - the first charging period will be 1 April 2013 to 31 March 2014 (see paragraphs 4.166 to 4.177 and Annex 4);
 - revenues from number charges will be paid by Ofcom into the Consolidated Fund of HM Treasury (see paragraphs 4.193 to 4.208);
 - Ofcom will continue to recoup its administrative costs associated with number allocation (including number charging) via the annual levy on eligible CPs;⁵⁶ and
 - we intend to review the pilot scheme after approximately two years of operation, although we may conduct a review earlier if it becomes clear that there are unintended consequences. Charging would continue during the period of the review (see paragraphs 4.178 to 4.192 and Annex 4).
- 4.19 Finally, the pilot scheme would be implemented by amending GC17 (and specifically, setting new conditions) (paragraphs 4.221 to 4.229 and Annex 8).

Rationale for number charging

- 4.20 As explained in Section 2, there is only a limited supply of geographic telephone numbers available for allocation to CPs. To increase the stock of numbers we would need to take number supply measures, such as closing local dialling and introducing overlay codes. Such measures are disruptive and would result in costs for consumers, CPs and Ofcom.⁵⁷
- 4.21 The rationale, and objective justification, for introducing a charge for geographic numbers is to encourage CPs to take the social costs of increasing number supply into account in managing existing number allocations and requesting new number blocks from Ofcom. There is little economic incentive to use the available supply of numbers efficiently now, since we allocate geographic numbers to CPs on a 'first-come first served' basis at no charge. This increases the risk that number supply measures will be needed in more area codes in the future.
- 4.22 We consider that number charging could help improve the efficient management of, and thus reduce demand for, geographic numbers by:
- ensuring CPs have a stronger incentive to return unused number blocks to Ofcom;
 - improving the utilisation of allocated number blocks (e.g. by encouraging CPs to obtain numbers from blocks allocated to other CPs as an alternative to obtaining numbers from Ofcom); and

⁵⁶ Only relevant CPs with a turnover of £5m or more contribute to Ofcom fees. Discussed in paragraphs 6.69 to 6.71 of the November 2010 consultation and paragraphs 6.177 to 6.187 of the September 2011 statement and consultation.

⁵⁷ See Annex 3 of the September 2011 statement and consultation for a discussion of the impact of such measures on consumers and CPs.

- reducing demand for new number blocks that may be used in relatively low-value applications.
- 4.23 We carried out a survey of CEPT administrations⁵⁸ in 2010 which showed that a charge is levied for geographic numbers already in the large majority of European Union (EU) member states – in some cases to cover the administrative costs of number allocation, but in others also as a means of addressing potential number scarcity. The UK is therefore somewhat unusual in not charging for numbers, in particular because number scarcity in certain area codes is a significant issue.
- 4.24 We identified three objectives to guide our proposals in introducing a number charging scheme in the November 2010 consultation.⁵⁹ These were that the scheme should:
- promote efficient use of numbers;
 - minimise any competitive distortion between existing CPs, as well as between existing CPs and new entrants; and
 - minimise any negative impact on consumers.
- 4.25 In response to the November 2010 consultation, stakeholders generally considered that these objectives were appropriate.⁶⁰
- 4.26 In response to the September 2011 statement and consultation stakeholders made a number of further comments about the rationale for and proportionality of introducing number charging and more specifically about our proposed pilot scheme, which we discuss below.

Use of administrative and number supply measures as an alternative to charging

Stakeholders' comments

- 4.27 Sky, ITSPA,⁶¹ [X] and Virgin Media did not think that number charging was appropriate at this stage. Sky considered that Ofcom should make administrative changes first which may negate the need for charging. It noted that if Ofcom is able to accept the return of numbers in blocks of 100 then this would mean that more unused numbers could be returned by CPs and extend the availability of numbers. It also noted that Ofcom intended to strengthen the administrative processes around the allocation of number blocks.
- 4.28 ITSPA noted that the number audit in 2011 resulted in a significant amount of number blocks being returned to Ofcom. [X] hoped that the threat of charging would cause a substantial number of blocks to be returned to Ofcom, thus negating the need to proceed with a charging scheme for some time.

⁵⁸ We surveyed National Regulatory Authorities (NRAs) in 47 other countries that are members of CEPT (European Conference of Postal and Telecommunications Administrations). We have information on 32 charging regimes. See Annex 5 of the November 2010 consultation for further information.

⁵⁹ See paragraphs 6.29 to 6.30 of the November 2010 consultation.

⁶⁰ Stakeholders' comments on the objectives are discussed in paragraphs 6.25 to 6.57 of the September 2011 statement and consultation.

⁶¹ The Internet Telephony Services Providers' Association (ITSPA).

- 4.29 ITSPA thought that the pilot scheme should be suspended until the effects of the proposed administrative changes to number allocations have ceased.
- 4.30 Virgin Media thought that Ofcom should introduce measures to deal with number management (e.g. closing local dialling, strengthening administrative processes and number charging) one at a time because introducing all these measures simultaneously would make any benefits and costs of each measure difficult to assess. It considered that Ofcom should close local dialling in area codes facing a shortage of numbers before introducing number charges. It noted that closing local dialling would prevent the need for an overlay code for a minimum of six years. It thought that once Ofcom has adopted number supply and administrative measures we could then consider whether number charging was necessary, which might not be the case. In addition, Virgin Media considered that introducing number charges would penalise CPs (and their customers) who already use numbers efficiently without any benefit in terms of more efficient number use.
- 4.31 [S<] also considered that Ofcom should close local dialling before introducing charges for numbers. It thought that closing local dialling was preferable to introducing number charging due to the potential negative consequences that charging could produce.
- 4.32 An individual (Mr J Diamond) thought that Ofcom should have powers to withdraw unused blocks of numbers as an alternative to charging.

Ofcom's response

Administrative measures

- 4.33 Sky thought that accepting the return of, and allocating, 100-number blocks would extend the availability of numbers. As discussed in Section 2, for technical reasons, numbers have been allocated in contiguous blocks of 1,000 numbers and it is not possible to return numbers to Ofcom in blocks of less than 1,000 numbers currently. This is because some CPs with legacy networks face technical constraints in routing calls to smaller number blocks, which means that CPs' ability to support such allocations needs to be assessed on an area-by-area basis. Therefore, even if a large amount of 100-number blocks were returned to us, it is unlikely that they could be reallocated to other CPs, which means that these blocks would remain unutilised. In addition, allocating 100-number blocks may not be practical in area codes with large populations (where CPs would likely need multiple allocations of 100-number blocks to meet demand).
- 4.34 However, we are exploring allocating numbers in smaller blocks and, as discussed in Section 5, we are planning a limited roll out of blocks of 100 numbers in 11 five-digit area codes.
- 4.35 Sky also noted that our proposals to strengthen our allocation processes for geographic numbers (e.g. introducing a reservation stage in the geographic number allocation process for some applicants⁶²) had not yet been introduced. Virgin Media and ITSPA also thought that administrative measures should be introduced first which might alleviate the need for number charging.
- 4.36 Our view is that while these measures could be helpful, we do not expect that they can deal with the problem of number block shortage in isolation. Unlike number

⁶² See paragraph A5.3.

charging, they would not encourage CPs to return unused number blocks or use the existing stock of numbers more efficiently.

- 4.37 We consider it is more effective to provide CPs with an economic incentive to use numbers efficiently through a market mechanism rather than using administrative processes (which would require greater Ofcom involvement and inevitably involve an element of judgement based on imperfect information) to determine when number allocations should be made.
- 4.38 We do not want to delay number charging until after administrative measures have been implemented, in particular, because there is a danger that some area codes will run out of numbers which an earlier introduction of charging could have postponed or prevented.⁶³

Impact of voluntary number block return

- 4.39 ITSPA and [] thought that the voluntary return of number blocks (e.g. through the number audit or due to the threat of charging) would alleviate geographic number shortage in some area codes and therefore the need to introduce number charging at this time.
- 4.40 A large amount of number blocks were returned as a result of the audit in 2011, and this has alleviated the pressure of number block shortage in some area codes. The success of the audit may, at least in part, have been due to the proposed introduction of number charging. However, despite the result of the audit we forecast that 45 four-digit area codes will require number supply measures by the end of 2021, and 120 four-digit area codes will require number supply measures over the next 15 years. Therefore, number block scarcity continues to be a pressing issue in some area codes and is likely to become a concern in a larger number of area codes over time. We consider that introducing the pilot scheme as soon as possible would encourage efficient use of numbers and thus help to avoid, or at least postpone, the need for number supply measures.

Closing local dialling

- 4.41 Virgin Media and [] suggested that local dialling should be closed in a given area code before it is subject to number charging. We disagree with this approach for two reasons:
- closing local dialling has cost implications for consumers and CPs. We consider that encouraging efficient number use through charging will delay or avoid the need to close local dialling in some area codes; and
 - if we only introduced number charges as number exhaustion approached in specific area codes (which by definition would be more imminent once local dialling has been closed), then it would be less likely to avoid or postpone the need for overlay codes which are particularly disliked by consumers.

⁶³ Note that for the purposes of the pilot scheme, we propose that the 11 five-digit area codes which will have a limited roll out of 100 number blocks will not be included in the scheme due to the particular circumstances in those areas; instead, we are proposing to include only the four-digit areas: see paragraph A4.8.

- 4.42 With respect to the first reason above, a large number (40 per cent)⁶⁴ of consumers considered it important to have the facility to dial locally, and the proportion of local calls made from a fixed line without the area code is larger still at 57 per cent.⁶⁵ This suggests that a large proportion of consumers will face the inconvenience of having to dial more digits (and the annoyance of redialling if they forget) if local dialling is closed. Moreover, 24 per cent of consumers use the speed dial facility on their telephone,⁶⁶ and these consumers will need to spend time reprogramming numbers if local dialling is closed.
- 4.43 There will also be some costs to businesses in reprogramming PBX and other equipment which dials or screens local calls.
- 4.44 With regard to the second reason, in area codes where the number shortage is most severe, closing local dialling is unlikely to be sufficient in ensuring number availability in isolation and overlay codes will be required in time. The 2010 consumer research found that consumers had a stronger dislike for overlay codes. The majority of those surveyed (64 per cent)⁶⁷ thought that it was important to be able to tell from the telephone number the location they were calling. There is a general concern that overlay codes may result in confusion. There is also a risk that some local businesses with a number with the new area code may fail to attract some customers because they are not perceived as local, or are perceived as less 'established'. As a result, businesses with the old area code could have a competitive advantage over those with the new area code.
- 4.45 We explained in the September 2011 statement and consultation that, while it is difficult to quantify reliably the costs which might arise as a result of number supply measures, we consider that such measures (especially overlay codes) are unpopular with a significant proportion of consumers and businesses.⁶⁸ For this reason, we consider that number charging is likely to play a valuable role by delaying or avoiding the need for number supply measures by encouraging more efficient number use.
- 4.46 [S<] noted that number charging could result in negative consequences. We are keen to understand any possible negative consequences of number charging. We are proposing to introduce charging in a limited number of area codes (so any possible negative consequences will be limited in extent), and we will conduct a review before considering any wider roll out.

Number charging penalises CPs using numbers efficiently

- 4.47 We do not agree with Virgin Media that number charging will unfairly penalise CPs that are using numbers efficiently. CPs with high number utilisation rates (i.e. using numbers more efficiently) will face a lower cost per number used relative to those with low utilisation rates, because they will be able to spread the number charges across a larger number of customers.

Withdrawing unused number blocks

⁶⁴ 2010 consumer research page 10. Report available at <http://stakeholders.ofcom.org.uk/binaries/consultations/geographic-numbers/annexes/numbering-futuresight.pdf>

⁶⁵ 2010 consumer research page 9.

⁶⁶ 2010 consumer research page 8.

⁶⁷ 2010 consumer research page 12.

⁶⁸ See paragraphs 6.44 to 6.48 of the September 2011 statement and consultation.

- 4.48 Mr Diamond thought that Ofcom should withdraw unused number blocks. We will continue to consider the use of our powers to withdraw allocations of numbers. We note, however, that these powers are limited to particular situations, for example, where a CP has engaged in serious or repeated contraventions of the Numbering Conditions (section 61(3) of the Act). We therefore do not consider that it would be appropriate to rely only on these powers to address the problem of number scarcity.
- 4.49 Nevertheless, we can (and do) request that numbers are voluntarily returned through our number audits.

Proportionality of introducing number charges

Stakeholders' comments

- 4.50 Virgin Media thought that charging was a disproportionate approach to solving the shortage of geographic numbers, particularly given that Ofcom was not able to predict the quantity of numbers it expects to gain as a consequence of charging, which means that it was not possible to undertake an informed cost benefit analysis.

Ofcom's response

- 4.51 While we cannot precisely estimate the benefits from introducing number charges at this stage, we consider that introducing a charge for numbers which are currently given out for free will encourage CPs to use numbers more efficiently, based on the fundamental assumption that charging will incentivise more efficient number use. The expected impact is two-fold:
- (i) reducing the amount of new number block allocations demanded (because CPs will not demand number blocks if the additional value that they would derive from those numbers is less than the charge, and CPs may seek sub-allocated numbers instead of new allocations from Ofcom); and
 - (ii) increasing the amount of number blocks which are available to allocate (because CPs are more likely to return blocks when they are not used, so these can then be reallocated).
- 4.52 We consider that this will benefit consumers by increasing the time until number blocks exhaust, thus postponing or avoiding the adverse impacts of number supply measures. We described the adverse impacts associated with number supply measures in the September 2011 statement and consultation.⁶⁹
- 4.53 We have considered the costs associated with implementing number charging (see paragraphs 4.134 to 4.145 below). Following comments from stakeholders, we have refined the approach to reduce the implementation costs associated with cost recovery for ported and WLR numbers (see Annex 3). Based on the information provided by CPs we anticipate the costs of implementing number charging to be relatively modest. We expect the costs imposed on CPs as a result of number charging (both the direct number charges and implementation costs) to be passed through to consumers in the form of higher prices. We expect that the increase to consumer bills as a result of number charging (including implementation costs) in the pilot scheme is likely to be less than 10p per exchange line per year.⁷⁰

⁶⁹ See paragraphs 6.41 to 6.48 of the September 2011 statement and consultation.

⁷⁰ The basis for this calculation is explained in paragraphs 4.154 and 4.155.

Charging for unused numbers only or providing discounts for numbers in use

Stakeholders' comments

- 4.54 In response to the November 2010 consultation, Virgin Media suggested that Ofcom should only charge for unused numbers in an allocated block. We explained why we disagreed with this suggestion in the September 2011 statement and consultation.⁷¹ We noted that it would place an undue burden on Ofcom and CPs to collect regular information on whether numbers are being used or not, and it was not clear how we would ensure that the information provided on used numbers was accurate. We thought that such an approach might create perverse incentives, e.g. CPs allocating a large amount of numbers to an individual (when they are not required) in order to artificially increase the measured number utilisation rate.
- 4.55 We also noted that this approach could disadvantage smaller CPs and new entrants compared with larger CPs, to a greater extent than the current proposals, because they would need to request a 1,000 number block but are likely to have a large proportion of unused numbers (at least initially).⁷²
- 4.56 In its response to the September 2011 statement and consultation, Virgin Media considered that we had not provided a substantive justification for why charging for unused numbers would be unduly burdensome, and that we could ensure information on number utilisation was correct through use of our powers under section 135 of the Act. Virgin Media noted that charging only for unused numbers would disproportionately penalise small CPs. However, it considered that charging for all allocated numbers in an area code penalised all CPs, including those that used numbers efficiently. It noted that smaller CPs could manage their costs more effectively if they were able to return numbers in blocks of less than 1,000 numbers.
- 4.57 An individual (Mr M Thomas) also considered that charging should be implemented, but with discounts for numbers that were in use.

Ofcom's response

- 4.58 We recognise that only charging for unused numbers, or providing a discount for numbers in use, could incentivise CPs to improve utilisation. We recognise that we could use our powers under section 135 of the Act to request information on utilisation rates. However, current indications suggest that around 166 CPs would be charged in the 30 area codes of the pilot scheme, and collecting and verifying number use information from such a large number of CPs would be burdensome both for us and CPs. The administrative costs that we would incur in undertaking this task would ultimately be reflected in the annual Network and Services fees levied on certain CPs.
- 4.59 CPs could also have an incentive to overstate the amount of utilised numbers in order to reduce their number charge bill. It is possible that CPs would try to 'game' the process, e.g. allocating a large amount of numbers to an individual (when they are not required) to artificially increase the measured or reported utilisation rate.
- 4.60 In addition, it is possible that at the proposed level of the charge, only charging for unused numbers or providing a discount for numbers in use would decrease the

⁷¹ See paragraphs 6.67 to 6.68 of the September 2011 statement and consultation.

⁷² The impact on smaller CPs from our proposals is discussed further under the 'Impact on CPs and new entrants compared with larger CPs' heading.

overall number charge bills to such an extent that it would have little impact on CPs, and thus have little effect in incentivising efficient number use. Moreover, all allocations of numbers to CPs (whether the number is ultimately used or not) contribute to number scarcity.

- 4.61 On the issue of returning numbers, we explain in paragraph 4.33 above why smaller CPs are not able to return numbers in blocks smaller than 1,000 numbers.

Other points

Stakeholders' comments

- 4.62 ITSPA considered that we had not provided sufficient evidence to suggest that charging has significantly affected CPs' behaviour in requesting numbers in other countries which charge for geographic numbers.
- 4.63 ITSPA and [§<] considered that we had not produced definitive economic evidence to support the appropriate level of the charge and were concerned that the pilot scheme would effectively be rolled out across the UK to become a replacement to the proposed Landline Duty (a tax on fixed lines which had been proposed by HM Government to help fund the roll out of Next Generation Access).⁷³
- 4.64 'Name Withheld 1' was concerned that number charges would be applied to number blocks that had already been allocated and noted that returning the number blocks was not an option, as end users were already using some of the numbers.

Ofcom's response

Evidence of impact of charging

- 4.65 We discussed the evidence of the impact of charging in other countries in the September 2011 statement and consultation.⁷⁴ In particular we discussed the survey on number charging that we issued to CEPT members in 2010.
- 4.66 Whilst the survey results indicated that the impact of charging on demand varied across countries, we considered that the evidence suggested that number charges may influence CPs' behaviour and may have improved the efficiency of number management. This remains our view, based on this evidence.
- 4.67 The impact of charging is likely to depend on a number of factors (including the level of the charge, the number of CPs in the market and the way in which numbers are managed by the relevant regulatory authority). Therefore, it is not clear that there would be value, in terms of improving our ability to assess the likely impact and effect of our proposals, in moving from a general understanding of the situation in other countries to a more detailed comparison. For this reason we have not gathered additional evidence – beyond that already obtained – on the impact of charging in other countries.

Level of the charge

- 4.68 ITSPA and [§<] considered that we had not produced definitive economic evidence to identify the appropriate level of charging. We discussed our reasoning for proposing

⁷³ Further information available at http://www.hm-treasury.gov.uk/consult_landlineduty.htm.

⁷⁴ See paragraphs 6.49 to 6.53 of the September 2011 statement and consultation.

a number charge of 10p per number per year in detail in the November 2010 consultation and September 2011 statement and consultation.⁷⁵

- 4.69 In principle, the number charge should reflect the social costs of meeting CPs' demand for numbers. However, in practice, it is not feasible for us to accurately quantify the social costs of expanding number supplies, particularly those that are borne by consumers. In order to quantify these costs, consumers would have to estimate the value of particular aspects of dialling which they largely take for granted and do not tend to associate with a 'price'. This is likely to form a large part of the social costs. In addition, social costs are likely to vary according to local factors (such as preferences towards geographic significance of numbers and local dialling) and according to scarcity. Hence the social costs of expanding number supplies may vary from area to area.
- 4.70 In the absence of dependable evidence on the social cost of number supplies, we looked at the experience in other European countries in order to inform the level of the number charge. The average annual charge in these countries is 7p per number.⁷⁶
- 4.71 In the November 2010 consultation we considered the circumstances prevailing in the UK and thought that a 10p per number per year charge was appropriate for the following reasons:
- we considered that the periodic charge in the UK should be slightly higher than the European average (of 7p per number) because:
 - (i) number scarcity is a particular problem in the UK, potentially greater than in other European countries (i.e. the likely need for number supply measures in the UK means social costs would be expected to be higher); and
 - (ii) the UK charge would be targeted at area codes where the fewest number blocks remain available for allocation, whereas our understanding is that the charges in other European countries tend to be nationally averaged.
 - we noted that the overall impact of a charge of this magnitude was relatively small (total charges in the order of £2.1m⁷⁷ per year whereas total fixed voice industry revenues were £9,315m in 2010⁷⁸), thus the impact on CPs and consumers is likely to be limited. However, we consider that it should provide sufficient incentive to use numbers more efficiently in the area codes targeted, e.g. for the 30 area codes provisionally included in the pilot scheme,⁷⁹ 102 CPs would be charged more than £1,000 per year; and
 - we considered that a charge of 10p per number per year was likely to be sufficient to enable us to gauge the reaction to charging and inform any subsequent decision on the future of charging for geographic numbers.

⁷⁵ See paragraphs 6.48 to 6.65 of the November 2010 consultation and paragraphs 6.143 to 6.175 of the September 2011 statement and consultation.

⁷⁶ See paragraph A5.11 of the November 2010 consultation.

⁷⁷ Calculated as amount of numbers allocated in the 30 pilot scheme area codes (adjusted for confirmed block returns as part of the audit) multiplied by 10p per number. This represents the upper limit for number charge revenues because we are proposing to allow a discount for ported and WLR numbers (discussed in Annex 3) and therefore the number charge revenues will be less than £2.1m.

⁷⁸ Source: Ofcom telecommunications market data tables Q3 2011, table 1, published February 2012 <http://stakeholders.ofcom.org.uk/binaries/research/cmr/telecoms/Q32011TelecomsDataTables.pdf>

⁷⁹ See Figure A4.1 in Annex 4.

Relationship between number charges and proposed landline duty

- 4.72 The purpose of charging for numbers is to encourage efficient number use. We see no relationship between the objectives of number charging and the proposed landline duty.

Charging for existing and new number block allocations

- 4.73 If charges did not apply to existing number block allocations, CPs with existing allocations would be at an advantage, in particular, incumbents with significant stocks of number blocks acquired when these were not charged for. We are concerned that this would distort competition between established CPs (that have a stock of free numbers) and new entrants (that would have to pay for numbers).
- 4.74 In addition, if we did not charge for existing allocations then CPs would be inclined to 'hang on' to these number blocks, even if they were unused. This would not help to achieve our objective of encouraging more efficient number use.
- 4.75 We would be particularly concerned if CPs sought to force a change of number on customers, or disconnected customers against their will in order to return number blocks with low utilisation. This is one reason why we are introducing charging in a limited number of area codes - to test for such unintended consequences. We noted in the September 2011 statement and consultation that we would consider facilitating the transfer of an allocation of an underutilised number block to a different CP that had a need for the allocation if requested to do so by both CPs.⁸⁰ This might enable consumers to retain their numbers, provided that they agree to switch providers.

Area codes included in the pilot scheme

- 4.76 This sub-section explains our method for selecting the area codes included in the proposed pilot scheme, taking account of stakeholders' comments and developments since the November 2010 consultation.
- 4.77 In the November 2010 consultation, we proposed to introduce charging initially in a limited number of area codes (referred to as a 'pilot scheme').⁸¹ We saw the advantages of a pilot scheme as helping to inform any subsequent decision on the longer term role of charging (by testing the impact of charging on CPs and consumers, including unintended consequences). We noted that the social costs associated with increasing number supply are likely to be higher in area codes where numbers are scarcer, since it is more likely that requesting an allocation of a number block in such area would bring forward the need for supply measures in the short term. In light of this, we suggested in principle that the selection of area codes included in any pilot scheme should take into account the availability of number blocks for allocation in each area.
- 4.78 We proposed to include those area codes with 100 or fewer blocks remaining to be allocated. In November 2010, the pilot scheme would have applied to 58 area codes (based on number block availability as at 9 July 2010). However:

⁸⁰ See paragraph 6.236 of the September 2011 statement and consultation.

⁸¹ The HM Treasury Green Book notes that carrying out a pilot study is one way to acquire more information about the risks affecting a project and allow steps to be taken to mitigate adverse outcomes. Source: http://www.hm-treasury.gov.uk/d/green_book_complete.pdf paragraph 5.74 and box 4.2.

- CPs returned a significant quantity of number blocks following an audit on number use conducted by Ofcom in the spring-summer of 2011;⁸² and
 - we proposed a limited roll out of up to 100 blocks of 100-numbers in each of the five-digit area codes (discussed in Section 5) and did not plan to charge in these area codes in the pilot scheme.
- 4.79 This meant that at the time we published the September 2011 statement and consultation, a pilot scheme based on the threshold proposed in the November 2010 would have captured only eight area codes.
- 4.80 The return of number blocks following the audit delayed the forecast date for number exhaustion⁸³ for some four-digit area codes. Nevertheless, based on provisional information at the time of the September 2011 statement and consultation, we still forecast that 25 four-digit area codes would require number supply measures over the next ten years, and 49 four-digit area codes would require number supply measures over the next 15 years. In fact, as explained in paragraph 2.51, fewer number blocks have been returned to date, and we currently forecast that 45 four-digit area codes will require number supply measures by the end of 2021, and 120 four-digit area codes will require number supply measures over the next 15 years.
- 4.81 We considered that the underlying issue of weak incentives on CPs to use numbers efficiently would remain, unless we introduced charging for numbers.
- 4.82 In the September 2011 statement and consultation we proposed a revised pilot scheme which would capture around 30 area codes with the fewest number blocks remaining to be allocated. In selecting a pilot scheme threshold of around 30 area codes we took into account:
- (i) the need to ensure that the pilot scheme was sufficiently large to influence CPs' behaviour and uncover potential unintended consequences,⁸⁴ and
 - (ii) the need to limit the number of area codes included in the pilot scheme to reduce the impact of any unintended consequences, should they arise.
- 4.83 At the time of the September 2011 statement and consultation, we estimated that a pilot scheme of 30 area codes with the fewest number blocks remaining to be allocated would have resulted in charges to 154 CPs, of which 102 CPs would have been charged more than £1,000 per year. We estimated that £2m of total revenues would have been raised. We also investigated increasing or decreasing the number of area codes in the pilot scheme but concluded that this was not appropriate to achieve the objectives set out in paragraph 4.82 as:
- increasing the number of area codes to 40 would have made a relatively small difference to the CPs affected - the number of CPs subject to charging would have only increased by three, the number of CPs with a charge greater than £1,000 would have increased by nine and the total charges to all CPs would have increased to £2.5m.

⁸² At the time of the September 2011 statement and consultation we expected to reclaim 69 million numbers. By March 2012 we had actually reclaimed around 42 million numbers.

⁸³ The date when we forecast that no further blocks will remain to be allocated unless a supply measure is implemented.

⁸⁴ One such unintended consequence might be CPs disconnecting consumers in order to return a low-utilised number block to Ofcom in order to avoid number charges.

- while reducing the number of area codes to 20 would have made a small difference to the total number of CPs charged, the number of CPs charged more than £1,000 would have fallen by 15, and the total charges to all CPs would have fallen to £1.4m. We therefore considered that a smaller pilot scheme would be less likely to have a meaningful impact on CPs' behaviour.

4.84 In order to provide CPs with certainty about the area codes included in the pilot scheme, we considered that these would be fixed from the final statement at least until the first review period regardless of subsequent allocations or number block returns during that period. In Annex 6 of the September 2011 statement and consultation we included a list of the 50 area codes with the fewest blocks remaining to be allocated at that time and indicated which 30 area codes would be captured by the pilot scheme (an updated list is provided in Annex 4 of this document).

4.85 In the September statement and consultation we asked stakeholders:

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

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

Stakeholders' comments

4.86 C&WW supported the pilot scheme approach and the proposed number of area codes in the pilot scheme.

4.87 SSE also supported the pilot scheme approach noting that it would enable Ofcom to monitor unintended consequences and ensure that the charging scheme is working well before it is rolled out any further.

4.88 BT, [redacted], Sky and 'Name Withheld 1' noted that, while they were opposed to number charging *per se*, if number charging were to proceed then they supported the pilot scheme approach.

4.89 BT and Sky thought that the pilot scheme should capture fewer area codes than proposed. BT considered that the pilot scheme went beyond the area codes where numbers are scarce, noting that the predicted exhaustion dates (as presented in Annex 6 of the September 2011 statement and consultation) for some area codes were more than ten years away. BT thought that Ofcom's intention, even in the longer term, was to charge only in area codes where there are significant shortages and, given the number of area codes likely to be covered in the pilot scheme, that the difference between a pilot scheme and full implementation appeared blurred. It also noted that the 'scarcity threshold' had changed relative to the November 2010 consultation – in that consultation the pilot scheme would have captured area codes with 100 or fewer blocks remaining to be allocated, and in the September 2011 statement and consultation the scheme captured some area codes with over 180 blocks available.

4.90 BT suggested that the pilot scheme should be restricted to area codes due for number exhaustion within eight years (even if this reduced the size of the pilot scheme). Its justification for this was that:

- this was only a pilot scheme as opposed to a rolled out scheme; and

- Ofcom had yet to introduce the proposed reservation stage in the number allocation process, as well as a more rigorous application process in general.
- 4.91 However, BT accepted that the pilot scheme needed to be of meaningful size if it went ahead and suggested a minimum size of 20 area codes.⁸⁵
- 4.92 Sky thought that the pilot scheme should be limited to area codes most at risk of number exhaustion and thus be limited to the eight area codes which met the pilot scheme threshold in the November 2010 consultation. It did not think Ofcom had been clear about why the pilot scheme should capture 30 area codes. Similarly, 'Name Withheld 1' did not think that Ofcom had justified the change to the pilot scheme threshold relative to the November 2010 consultation.
- 4.93 Virgin Media also noted that the number of area codes captured within the pilot scheme threshold based on the November 2010 consultation had fallen to eight. Virgin Media thought that Ofcom needed to justify the proportionality of a charging scheme on the merits of such a scheme rather than start from a presumption that it needs a sizeable number of area codes to include in a pilot scheme, regardless of whether the measure is immediately needed in a particular area code and without reference to other measures. It thought that charging should only be used as a last resort after other measures, e.g. closing local dialling and improving administrative measures, had been implemented.
- 4.94 [3<] disagreed with the method for determining which area codes to include within the pilot scheme. It thought that Ofcom should publish a 'threshold of constraint',⁸⁶ and only once this threshold was reached after closing local dialling, should charging be triggered. It thought that publishing such a threshold would provide CPs with regulatory certainty and encourage CPs to do proactive audit work in critical area codes. Without such a threshold it considered that charging might turn into general taxation. It also thought that if blocks are returned such that an area code falls below the threshold then charging should cease immediately.
- 4.95 ITSPA also urged Ofcom to be transparent in its approach to charging and requested that we set out a clear threshold at which charging would apply. In any case, ITSPA did not agree with the pilot scheme on the basis that it was opposed to the introduction of number charging *per se* (rather than due to specific objections to the pilot scheme itself).
- 4.96 An individual (Mr J Diamond) thought that charging should be rolled out to all area codes immediately to avoid hoarding of number blocks by CPs.

Ofcom's response

- 4.97 If number charging is introduced, the approach of a pilot scheme was broadly supported by stakeholders. Virgin Media and ITSPA disagreed on the basis that they

⁸⁵ BT considered that some extended linked numbering scheme (ELNS) area codes appeared to have fewer numbers remaining in the distinct locations denoted by the first digit of the local number than area codes included in Ofcom's list of 50 area codes with fewest number blocks remaining to be allocated (in Annex 6 of the September 2011 statement and consultation). It thought that, on the basis of number scarcity, some of the ELNS area codes should be considered for inclusion in the pilot scheme. We have discussed our approach to ELNS area codes in Section 5 paragraphs 5.57 to 5.62 and we do not propose to include these area codes within the pilot scheme.

⁸⁶ We understand this to mean that charging would start when we reach a certain minimum number of blocks remaining to be allocated in an area code. We consider that the minimum number of blocks is, in effect, the threshold, albeit a fixed one set at the beginning of the pilot scheme.

are opposed to number charging *per se*. We have discussed Virgin Media and ITSPA's concerns about the introduction of charging under the 'Rationale for number charging' heading above. We discuss [3<]'s concerns about number charges being viewed as a tax under the 'Revenues from number charges' heading below. We address the detailed points on the pilot scheme below.

Number of area codes included in the pilot scheme

- 4.98 In essence BT and Sky thought that the area codes included in the pilot scheme should be based on the forecast date for number block exhaustion. Sky thought that the pilot scheme should only include area codes at most risk of number exhaustion which means area codes with 100 or fewer number blocks available for allocation, as proposed in the November 2010 consultation, even if this meant that only eight area codes would be included. BT suggested that the pilot should capture area codes forecast to exhaust within eight years.
- 4.99 As explained in paragraphs 4.82 to 4.83 above and in the September 2011 statement and consultation,⁸⁷ the amount of area codes included in the pilot scheme (i.e. 30) was selected with reference to (i) the need to ensure that the pilot scheme was sufficiently large to influence CP behaviour and uncover potential unintended consequences; and (ii) the need to limit the number of area codes to reduce the impact of unintended consequences, should they arise. If we reduced the number of area codes then the scale of the pilot scheme would not be sufficient to yield meaningful information on the impact of charging or the potential for unintended consequences
- 4.100 The precise area codes included have been selected on the basis of the amount of number blocks available for allocation in each area code. For the pilot scheme, we considered that this objective method for selection is appropriate; selection on the basis of when the area codes are forecast to exhaust is inherently more subjective and uncertain as the forecast calculation depends on a number of assumptions and variables.⁸⁸ In any event, there is of course a link between the amount of number blocks remaining and the exhaustion date. The potential 30 area codes included in the pilot scheme includes area codes forecast to exhaust up to 2023, i.e. 11 years away, which is relatively close to the proposal suggested by BT that area codes should be included in the pilot scheme if they are forecast to exhaust within eight years. However, it is worth noting that this is a consequence of the decision to pick a pilot scheme of 30 area codes, not a target metric.
- 4.101 In any case, we disagree with BT and Sky that number charging should only be focussed on area codes with a significant current number block shortage. Number charging is a preventative measure in that it seeks to prevent precisely a situation where exhaustion is imminent. The purpose of the pilot scheme is to encourage CPs to plan their number use, also in the long-term, more carefully, and only to request number blocks where the anticipated value created from using the block is greater than the number charge. In those area codes where exhaustion is close, it is unlikely that we will be able to postpone significantly or prevent the need for number supply measures. In order for the proposed introduction of charging to have an impact CPs need to have some time to modify their behaviour.
- 4.102 As well as promoting the efficient use of numbers in the relevant area codes, the pilot scheme will help inform any future decision on the longer-term role of charging. As

⁸⁷ See paragraphs 6.12 to 6.17 and 6.123 to 6.130 of the September 2011 statement and consultation.

⁸⁸ See further paragraphs 2.55 to 2.60 and Annex 2.

discussed further below, we will consider this as part of the review of the pilot scheme. We stated in the November 2010 consultation that we do not plan to charge for numbers in area codes which do not have conservation status, i.e. in areas with two- or three-digit area codes (e.g. London 020 or Birmingham 0121). Because of the shorter area code for these areas, and thus the availability of more numbers, we believe that the need for number supply measures is unlikely, even in the long term.

- 4.103 BT suggested that a reason for limiting the number of area codes in the pilot scheme was that we have not yet introduced the strengthened administrative measures proposed in the September 2011 statement and consultation.⁸⁹ As discussed in the September 2011 statement and consultation, we consider that administrative measures play a part in number management, but we do not think that administrative measures alone will be sufficient, or a substitute, to deal with number scarcity.⁹⁰ We consider it more effective to provide CPs with an incentive to use numbers efficiently rather than relying on administrative measures alone to manage the supply of numbers.

Alternative approach to the pilot scheme

- 4.104 [§<] did not agree with the method we used to determine which area codes should be included in the pilot scheme. We understand that its alternative suggestion is that charging in an area code would start when a certain minimum number of blocks remained. As an example, charging might start when only 15 per cent of number blocks remain available to be allocated.
- 4.105 We recognise that [§<] suggested approach might encourage CPs to manage numbers carefully as the threshold was approaching to avoid tipping into the charging scheme. However, as discussed above, we want to encourage CPs to use numbers efficiently before number blocks become scarce. We are concerned that once the threshold is reached the need for number supply measures will be needed sooner rather than later. To mitigate this concern we could set the threshold so that charging started well in advance of the point when number block shortage becomes pressing (e.g. when 50 per cent of number blocks are unallocated). However, such a threshold would result in a much larger pilot scheme than we are currently proposing.⁹¹
- 4.106 A further problem with this approach is that area codes may fluctuate in and out of the charging threshold depending on allocation and return of numbers in those area codes. This would create uncertainty for CPs and greater complexity in calculating and reconciling the number charge bills (particularly as the suggestion is that charging for numbers in area codes falling below the threshold would immediately cease).
- 4.107 Therefore, we do not intend to adopt such an approach for the pilot scheme.

⁸⁹ For example, audits, revisions to the application form to request more information before numbers are allocated and the introduction of a reservation step in the number allocation process where it is not clear that the CP is ready to adopt numbers.

⁹⁰ See paragraphs 6.36 to 6.39 of the September 2011 statement and consultation.

⁹¹ If, for example, we set the pilot scheme threshold so that charging started when 50 per cent of blocks remained to be allocated, this would result in charging being introduced in over 500 area codes based on current information.

Immediate roll out of charging to all area codes

4.108 Mr Diamond suggested that number charging should be rolled out to all area codes immediately. We have explained above why we think that charging in a pilot scheme is appropriate. If we rolled out charging to all area codes immediately and unintended consequences did arise, the potential for harm would be significantly greater compared to a more limited roll out in a pilot scheme of 30 area codes, which would cover approximately 12 per cent of the UK population.

Summary

4.109 Having considered stakeholder responses we continue to propose that the pilot scheme would include 30 area codes with the fewest number blocks remaining to be allocated.⁹² Based on the latest available information a pilot scheme covering 30 area codes would result in charges to 166 CPs with 102 CPs having a total charge greater than £1,000. As previously noted, we estimate that the total revenues raised will be around £2.1m.⁹³ We plan to publish a final list of area codes to be included in the pilot scheme when the statement on number charging is published. The area codes captured by the pilot scheme may change before the final list is published if blocks are allocated or returned in the meantime; however, we would not expect the list to change significantly.⁹⁴

Impact of pilot scheme on CPs

4.110 As required by section 47(2) of the Act, we have to ensure that the proposal to charge CPs 10p per year per allocated number in the pilot scheme area codes is proportionate to what it is intended to achieve and that it will not discriminate between CPs, or that any potential discrimination can be justified.

4.111 We have assessed the potential impact of the proposal on CPs, and on competition, and consider that the impact will be relatively small:⁹⁵

- we estimate that the revenues from the pilot scheme will be around £2.1m⁹⁶ per year which compares to total fixed line revenues of £9,315m in 2010. This means that number charges would only represent 0.02 per cent of CPs' total revenues in 2010;

⁹² Based on current information if we increase the number of area codes in the pilot scheme to 40 the number of CPs subject to charging would increase by 11, the number charged more than £1,000 would increase by 13 and the total charges to all CPs would increase to £2.8m. If we decrease the number of area codes in the pilot scheme to 20 the number of CPs subject to charging would decrease by six, the number charged more than £1,000 would decrease by 16 and the total charges to all CPs would decrease to £1.4m. This assessment is little changed relative to the September 2011 statement and consultation.

⁹³ See footnote 77.

⁹⁴ The 30 area codes included in the pilot scheme would be fixed at the time of the statement. Even if local dialling was closed in certain area codes (such as the Bournemouth 01202 area code) and the additional supply of number blocks meant that these area codes would no longer be in the top 30 area codes with the fewest blocks remaining available to allocate, we nevertheless consider that it is appropriate to continue charging in these area codes: see paragraph 6.134 of the September 2011 statement and consultation.

⁹⁵ We also discussed the impact on CPs in detail in paragraphs 6.72 to 6.98 of the November 2010 consultation and paragraphs 6.188 to 6.227 of the September 2011 statement and consultation.

⁹⁶ See footnote 77.

- looking at the potential cost per line we estimate that the effect of the number charge is again likely to be modest. For illustrative purposes, a CP with an average 50 per cent number block utilisation rate would need to recover 20p per fixed line per year from end users.⁹⁷ This compares with wholesale costs per line of £104 per year.⁹⁸ Therefore, in this example, number charging would add less than 0.2 per cent to fixed line costs before even considering the retail costs per line; and
- the majority of CPs likely to be charged (we estimate 138 out of 166 CPs based on current data) would receive an annual bill of £5,000 or less.

4.112 Stakeholders commented on the potential impact of the proposal on CPs in response to the September 2011 statement and consultation, and we set out those comments (with relevant references to the November 2010 consultation) and Ofcom's response below. The comments are categorised as follows:

- (i) impact on small CPs and new entrants compared with larger CPs;
- (ii) use of numbers by CPs under a regulated arrangement; and
- (iii) administrative cost of implementing the pilot scheme.

4.113 The discussion shows that in our view, given the limited impact, the proposal is proportionate. Where there is any potential for discrimination between CPs, this is justified taking account of the purpose of the proposal to incentivise the efficient use of numbers and the aim to reduce costs to CPs and Ofcom in administering the pilot scheme.

Impact on small CPs and new entrants compared with larger CPs

4.114 We need to ensure that the introduction of the pilot scheme minimises any potential distortion of competition between existing CPs, or between existing CPs and new entrants.

4.115 In the November 2010 consultation and September 2011 statement and consultation we acknowledged that number charging could disadvantage CPs with lower number block utilisation relative to CPs with higher utilisation rates. This is because the number charge would apply to every number in a block, but CPs with lower utilisation have fewer customers over which to spread cost recovery.

4.116 In the November 2010 consultation we concluded that, on average, it was likely that larger CPs would have higher utilisation than smaller CPs, but that this was not always the case. In the September 2011 statement and consultation, we calculated the impact of our preferred approach to number charging (i.e. a charge of 10p per number per year for 30 pilot scheme area codes) in relation to gross revenues for the sample of small and medium CPs who responded to an informal information request (issued before the November 2010 consultation).⁹⁹ Twenty of the 34 CPs providing information had number allocations in the proposed pilot scheme area codes. For 17 of these 20 CPs, a 10p per number annual charge would be equivalent to less than

⁹⁷ Being the cost per 1,000 number block of £100 divided by 500 customers.

⁹⁸ For this illustration we have taken the basic line WLR charge as a proxy for average wholesale costs. For more advanced wholesale lines the charge is greater. Source: <http://www.openreach.co.uk/orpg/home/products/pricing/loadProductPriceDetails.do?data=vZC%2BGHliu80GtUKWLu%2BtzAfqMZEuYNVwUnHGezzqOd1UNelS4WkJBRh6z%2FRUAlt8maxtgrEro1A7%0Aw5V8nzAZpQ%3D%3D>.

⁹⁹ See paragraphs 6.221 and 6.222 of the September 2011 statement and consultation.

one per cent of gross annual revenues. For the remaining three CPs, the estimated impact would amount to between one and two per cent of gross annual revenues. We therefore concluded that our preferred option would appear unlikely to have a significant disruptive impact on CPs' businesses.

- 4.117 We also noted two ways in which CPs could mitigate the impact of low utilisation. First, CPs could return any unused number blocks to avoid charges. Second, CPs with low utilisation of opened blocks may be able to reduce the impact of charging by sub-allocating numbers to other CPs and charging for this so as to offset the charges for which they were liable.
- 4.118 New entrants that only require a few numbers in an area might find it more cost effective to obtain numbers via sub-allocation from other CPs rather than applying for whole number blocks from Ofcom. Telephony Services Limited noted in its response to the November 2010 consultation that "Sub-allocation is currently a widely used access to the market for many new entrants."¹⁰⁰ We also noted that it might be appropriate for small CPs/new entrants with innovative services to use other types of number for which we are not currently proposing to charge.

Stakeholders' comments

- 4.119 ITSPA remained concerned about the reasoning to justify charging and believed that it would primarily impact on smaller providers and new entrants. It believed that the ongoing deployment of Next Generation Networks would also provide Ofcom with the opportunity to deploy smaller number blocks in other area codes across the UK which would increase the efficient use of numbers. It thought that charging on a per number basis would be extremely harmful to many CPs, especially if they are unable to hand back numbers in blocks of less than 1,000 numbers. As a result, it considered that this was a threat to competition.¹⁰¹
- 4.120 'Name Withheld 1' was concerned that if number charging was eventually rolled out to all area codes then CPs would be charged a minimum of £61,000 per annum (assuming they have a 1,000 number block in each geographic area).¹⁰² It noted that this did not take into account area codes where only 10,000 number blocks were available (e.g. Birmingham (0121), London (020) and Manchester (0161)). It considered that charges of this magnitude would make it impossible for some smaller CPs to continue in business, raising barriers to entry and protecting larger established CPs for whom such payments were a relatively trivial cost of doing business.
- 4.121 'Name Withheld 1' also thought that the financial burden on the smaller CP was disproportionate as there were no plans to allow number allocations to be made in smaller blocks (except in a limited number of five-digit area codes). It therefore questioned what a CP could do if it only has a few customers in a particular area code.

¹⁰⁰ Page 6 of the Telephony Services Limited response to the November 2010 consultation.

¹⁰¹ ITSPA also made some comments about comparing fixed and mobile number ranges and use of administrative measures which are discussed under the 'Other stakeholder comments' heading below.

¹⁰² If number charging was rolled out more widely after the review of the pilot scheme, at most, we would charge in the 590 area codes with Conservation Area status (where number allocations are now made in blocks of 1,000 numbers). In the event that we rolled out a 10p per number per year charge to all Conservation Areas, the cost of obtaining a UK-wide allocation of number blocks (i.e. a 1,000 number block in each area code) would be £59,000 per annum.

Ofcom's response

Impact on small CPs

- 4.122 We recognised in the November 2010 consultation and September 2011 statement and consultation that, in theory, number charging could disadvantage CPs with low utilisation relative to those with high utilisation because the costs would have to be spread over a smaller customer base. We also recognise that smaller CPs and new entrants are likely to have lower than average utilisation. However, based on the information available to us we consider that our proposal to charge 10p per number per year in a limited number of area codes would appear unlikely to have a significant disruptive impact on CPs. To the extent that it does have a larger impact on CPs with a lower utilisation rate, we consider that this is justified since the principal objective of introducing number charging is to provide incentives for CPs to become more efficient in the utilisation of number blocks. As discussed in paragraph 4.117 above, there are a number of ways which CPs could mitigate the impact of low utilisation.
- 4.123 In addition, the discount approach we are proposing to adopt (see further paragraphs 4.127 to 4.133 and Annex 3) has the effect that CPs who rent wholesale exchange lines from BT (i.e. through the use of WLR) would not be charged. Therefore, small CPs that only use WLR with numbers allocated to BT would not face any number charges.
- 4.124 Even in the unlikely event that CPs decide to exit the market or consolidate because of number charging, we consider that this would be unlikely to have a significant impact on consumer choice or competition given the large number of CPs who have been allocated geographic numbers (300+).¹⁰³
- 4.125 The total charge that would be payable to have a 1,000 number block in each of the pilot scheme area codes would be £3,000 per year.¹⁰⁴ We do not consider a charge of this magnitude to be a significant barrier to entry. We do not plan to charge for numbers in two- and three-digit area codes (such as London (020) and Birmingham (0121)) where 10,000 number blocks are allocated.¹⁰⁵

Smaller number blocks

- 4.126 As explained in paragraph 4.33, it is not currently possible to return or allocate smaller number blocks on a widespread basis.

Use of numbers by a CP under a regulated arrangement

- 4.127 In the November 2010 consultation and September 2011 statement and consultation we noted that there are cases where, pursuant to regulatory requirements, the telephone number that a CP uses to provide a service to a customer is allocated by Ofcom to a different CP.¹⁰⁶ These are where:

- the customer's number has been ported from one CP to another CP – a ported number remains allocated to the CP (known as the range holder) which was

¹⁰³ Source: Ofcom's numbering database (CPs with geographic number allocations).

¹⁰⁴ Given by: 10p per number x 1,000 numbers x 30 area codes.

¹⁰⁵ As these areas have shorter area codes and thus more local number permutations, we do not currently foresee number block scarcity being an issue, even in the longer term.

¹⁰⁶ This excludes the situation of sub-allocated numbers which involve a commercial agreement between CPs.

allocated the relevant block of numbers by Ofcom, even though another CP (the recipient provider) is using the number to provide a service to the customer; and

- the exchange line is supplied using Wholesale Line Rental (WLR) services – WLR lines are usually attached to a number allocated to BT (the range holder), but it is the CP that provides a service to the customer (the retail CP) that uses the number.

4.128 In the November 2010 consultation we set out that in both cases we would expect the range holder to pay the number charge to Ofcom, even where some or all of the numbers are used by other CPs. Administratively, this is simpler (with lower costs for Ofcom and CPs) than attempting to identify the CP using each individual number and recover the number charge from them.

4.129 We recognised that where the range holder is not able to benefit from using allocated numbers due to regulatory arrangements, it would be appropriate for the range holder to recover reasonable costs associated with number charging. We proposed some guidance for cost recovery in these circumstances in the November 2010 consultation.¹⁰⁷ Stakeholders' responses to the November 2010 consultation indicated that the recovery of charges by the range holder from the CPs using ported/WLR numbers would be costly to implement because systems development would be required to calculate bills. Therefore, we proposed two new options in the September 2011 statement and consultation.¹⁰⁸

4.130 One of the options ('Option 5 - discount approach') does not involve the range holder recovering costs from the CP using the ported/WLR number. Instead, the range holder would provide Ofcom with a list of ported numbers¹⁰⁹ and numbers used for WLR services, and we proposed to apply a discount to the CPs' number charge bill for these numbers.

4.131 In summary, stakeholders indicated that the discount approach would significantly reduce the cost and complexity of implementing number charging (see the following sub-section and Annex 3), and we are therefore minded to adopt it for the pilot scheme. The discount approach (including stakeholders' comments and Ofcom's response) is discussed in detail in Annex 3.

4.132 We recognise that there is a potential concern in not charging CPs for their use of ported/WLR numbers which is relevant for the requirement that the proposal does not discriminate between CPs. We make the following points:

- administratively, this is a simpler and more cost effective solution (for CPs and Ofcom) than identifying the CP using each number and recovering the number charge from them;
- a significant consideration is that recipient CPs using ported/WLR numbers do not manage or influence the efficient use of the allocated number block which is the underlying rationale for the number charging; and

¹⁰⁷ See Annex 4 of the November 2010 consultation.

¹⁰⁸ See Annex 5 of the September 2011 statement and consultation.

¹⁰⁹ General Condition 18 on Number Portability obliges CPs to provide Ofcom with information on ported numbers and the recipient provider if requested to do so.

- the impact on the CPs being charged in the pilot scheme is in our view relatively small, as set out above; consequently, there is unlikely to be any adverse impact on competition.

4.133 This suggests that any potential discrimination is justified for the pilot scheme. We will assess whether this approach has any adverse impact on competition as part of the review of the pilot scheme.

Administrative costs of implementing number charging

4.134 In the November 2010 consultation we recognised that CPs may incur additional administrative costs associated with number charging, e.g. dealing with invoices. There may also be some one-off administrative costs associated with returning unused number blocks to Ofcom (both for the CP returning the blocks and for other CPs that remove the blocks from their routing tables). We anticipated that these incremental costs would be very small as they would not require new processes or absorb substantial amounts of time, because CPs already handle invoices and make data management activity changes. In any event, we expected that the costs associated with charging would be passed through to consumers in the form of higher prices.

4.135 In response to that consultation, some CPs noted that the incremental costs would be small as it was simply a case of verifying and paying a bill from Ofcom. Other CPs thought there would be a significant amount of internal administrative work required to implement the pilot scheme. In particular, respondents noted the proposals for cost recovery regarding regulatory arrangements could be costly to implement.

4.136 In response to the November 2010 consultation, BT was the only CP able to provide an implementation cost estimate, noting that it would need to do a feasibility study to consider how to implement the charging process. [X<BT]

4.137 As discussed, we proposed a number of simpler options to deal with ported out and WLR numbers in the September 2011 statement and consultation. Because of the new options proposed, and because CPs provided limited information on the administrative costs that they would incur as a consequence of number charging, we were not able to estimate accurately the cost to industry at the time of the September 2011 statement and consultation. As part of that consultation we invited feedback from CPs in relation to the administrative costs in light of the simplified approach for ported and WLR numbers. We asked stakeholders:

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?

Stakeholders' comments

4.138 C&WW, [X<] and 'Name Withheld 1' thought that the administrative costs of implementing number charging would be minor, e.g. validating a bill from Ofcom. However, C&WW and [X<] noted that this would depend on the detail of implementation – for example, the treatment of ported and WLR numbers.

4.139 C&WW, BT, Virgin Media and SSE all noted that the implementation costs would be reduced if we adopted the discount approach to deal with cost recovery for ported and WLR numbers, e.g. C&WW and BT noted that the cost of inter-CP billing and reconciliation would be avoided under this approach. BT considered that if the

discount approach was adopted its estimate of implementation costs for number charging could be at or below the lower-end estimate it provided in response to the November 2010 consultation ([§<]).¹¹⁰

- 4.140 Virgin Media considered that administering the pilot scheme (i.e. updating the customer provisioning system, allocating costs between business and residential sections of the company) was likely to cost in the region of [§<] (noting that the estimate depended on how Ofcom administered the pilot scheme).¹¹¹ It argued that the costs of the pilot scheme could not be seen in isolation and Ofcom needed to weigh up the cost to industry of all the proposals relating to the geographic numbering review. In particular, it noted that it was difficult to assess the costs required to close local dialling in the Bournemouth 01202 area code, and in these circumstances Ofcom should not be seeking to impose further costs on industry.
- 4.141 C&WW considered that some cost could be incurred in incorporating the charges into internal financial structures and potentially retail pricing. For example, if the charging measures are to have an impact on the volume of numbers being actively used by customers or reserved for expansion by account teams, then there was a need for this to be reflected as a cost-of-sale line item. C&WW was not able to estimate any implementation costs at this stage.
- 4.142 Sky noted that, if we did decide to adopt a cost recovery approach where the range holder CP recovered number charge costs from the recipient CP for ported numbers, it may incur some costs to amend its bilateral porting agreements.

Ofcom's response

Cost of implementing pilot scheme

- 4.143 Some CPs commented that the costs of implementing the pilot scheme were expected to be minor, and a number of CPs noted that adopting the discount approach for ported and WLR numbers would reduce implementation costs. In light of our proposal to adopt the discount approach, and based on responses from stakeholders, we anticipate that the costs of implementing number charges to be relatively modest. Based on the information provided, the one-off implementation cost for [§<] are [§<].¹¹²

Cost of other number management initiatives

- 4.144 Virgin Media argued that the costs of implementing number charging should not be seen in isolation, and the costs of implementing the number supply measures should also be considered. We agree that closing local dialling in the Bournemouth 01202 area code would happen a few months before the introduction of number charging. However, for other area codes we believe that implementing number charging will either avoid, or at least delay, the need for number supply measures in the future – thus postponing or avoiding the costs associated with these measures.

¹¹⁰ BT response to the September 2011 statement and consultation, page 10.

¹¹¹ Virgin Media response to the September 2011 statement and consultation, page 4.

¹¹² For the purposes of illustration, if we assume that the implementation costs are proportional to market shares of exchange lines, then this might imply a ball park industry set up cost of around [§<] in the first year. In 2010, [§<] accounted for [§<] per cent of UK fixed lines. Source: Ofcom telecommunications market data tables Q3 2011, table 2
<http://stakeholders.ofcom.org.uk/binaries/research/cm/telecoms/Q32011TelecomsDataTables.pdf>.

Other points

4.145 Sky noted that, if we did decide to adopt a cost recovery approach where the range holder CP recovered number charge costs from the recipient CP for ported numbers, it may incur some costs to amend its bilateral porting agreements. We are proposing to adopt the discount approach (see Annex 3) which means that the range holder would not be recovering costs from the recipient CP, and we would therefore not expect Sky to incur these costs.

Summary

4.146 To summarise:

- we recognise that number charging may disadvantage CPs with lower number block utilisation relative to those with higher utilisation rates. However, we consider that CPs can mitigate the impact of lower utilisation by returning number blocks or through sub-allocation;
- we are proposing not to charge CPs for ported or external WLR numbers. We recognise that there is a potential concern that not charging CPs for using ported or WLR numbers might discriminate in favour of these CPs relative to those using numbers from their own allocations. However, we consider the potential impact is relatively small and is justified because this approach is simpler and results in lower implementation costs compared to the alternative of recovering number charges from CPs using ported or WLR numbers. In addition, recovering number charges from the CPs using ported and WLR numbers would not help to achieve our objective in encouraging efficient number use because those CPs do not manage the utilisation of the underlying number block; and
- based on the information available we anticipate the costs of implementing number charging to be relatively modest.

Impact of pilot scheme on consumers

4.147 We have also assessed the potential impact of the proposal on consumers and consider that this will be relatively small. It is relevant to note again in this context that if numbers continue to be used inefficiently by CPs, more area codes might require number supply measures at an earlier date than would otherwise have been necessary.

4.148 The purpose of number charging is to encourage CPs to take into account the social costs associated with increasing number supply when managing and requesting allocations of number blocks. We believe that this will provide long-term benefits to consumers by postponing or avoiding the need for number supply measures, which are disruptive and disliked by consumers.

4.149 In summary:

- while number charges levied on CPs are likely to be passed through to consumers in higher retail prices, the amounts involved are small relative to other costs incurred by CPs and are smaller still compared to average customer spend; and
- while there is a small risk that CPs with low number block utilisation might disconnect customers in order to return number blocks to Ofcom to avoid number

charges (resulting in these customers losing their services and telephone numbers), we have sought to manage this risk by introducing charging in a limited number of area codes. If such unintended consequences were to become significant, however, we may commence our review of the pilot scheme earlier than planned (see further sub-section on 'Assessment of pilot scheme' at paragraphs 4.178 to 4.192).

4.150 In addition to the potential costs to consumers in the form of marginally higher bills and consumers forced to change their telephone numbers, we discussed in the September 2011 statement and consultation that the following potential costs could also arise:¹¹³

- CPs may have an incentive to offer consumers numbers from a geographic area code where there is no charge for numbers which could reduce the location significance of numbers;
- consumers may have less opportunity to obtain a number with a local area code;
- there may be fewer companies to whom a consumer could switch while retaining their existing number once they had been allocated an 'out of area' number, thereby affecting customer choice; and
- CPs may re-circulate previously used numbers after a shorter than normal sterilisation period in order to avoid applying for the allocation of new blocks, which could lead to an increase in calls made in error (i.e. to the wrong consumer).

4.151 We discuss each of these potential costs in turn below.

Consumer faces a higher bill

4.152 As indicated above, we expect CPs to pass the costs from number charging to consumers in the form of higher prices, e.g. for phone line rental and/or calls.

4.153 We anticipate that any price increases to consumers are likely to be marginal since our proposal means that number charges would be relatively low and targeted in area codes with greatest number block shortage. As noted above, we estimate that the pilot scheme, which covers around 12 per cent of the UK population, might raise revenues of around £2.1m.¹¹⁴ We set out in the November 2010 consultation that we think CPs are likely to continue to offer nationally averaged prices, rather than increasing prices in just the area codes subject to charging.¹¹⁵

4.154 Assuming CPs spread the number charge costs across their national fixed line customer base, the average increase in line rental would be approximately 6p per exchange line per year.¹¹⁶ This represents 0.02 per cent of the average revenue per exchange line (£279 in 2010).¹¹⁷

¹¹³ See paragraphs 6.232 to 6.243 of the September 2011 statement and consultation.

¹¹⁴ See footnote 77.

¹¹⁵ See paragraphs 6.103 to 6.105 of the November 2010 consultation.

¹¹⁶ Based on 33.4m exchange lines in 2010. Source: Ofcom telecommunications market data tables, table 2

<http://stakeholders.ofcom.org.uk/binaries/research/cmr/telecoms/Q32011TelecomsDataTables.pdf>

¹¹⁷ Total industry revenues of £9,315m (in 2010) divided by total exchange lines of 33.4m (in 2010).

- 4.155 Offsetting this per line effect is the fact that, where appropriate, CPs will receive a discount for ported numbers (and, in the case of BT, numbers for external WLR lines). However, a factor potentially adding to the above effect is implementation costs. Based on a ball park industry implementation set up cost of around [X] (see footnote 112 and recovery of this cost across all fixed line consumers in the first year of charging, the expected increase to the bill would be around [X] per exchange line in the first year of charging (in addition to the 6p estimated above). The combined impact on average bills per line would thus be around [X] per cent in the first year of charging. The increase to consumer bills in subsequent years (assuming the number of area codes covered by charging remains constant) would likely be lower because we would expect the ongoing implementation costs associated with number charging to be significantly lower than the set up costs.
- 4.156 In addition to benefiting from the delay or avoidance of supply-side measures, if number charging successfully defers or avoids such measures, it is also relevant that consumers generally will benefit from revenues raised from number charges, since these will be passed by Ofcom to the Consolidated Fund of HM Treasury (see further paragraphs 4.193 to 4.208).

Consumer forced to change number

- 4.157 Number charging might lead CPs with very low block utilisation to consider clearing number blocks by taking numbers back from customers in order to return the block to avoid the charges. In these circumstances, the CP might either try to persuade customers to return their number or, if the customer will not agree to give up the number voluntarily, may disconnect the customer.
- 4.158 A CP could give notice to its customers that their number will be withdrawn; consumers have no express right to retain their number under the Act. However, any CP returning numbers to Ofcom in this way would have to consider the contractual rights of its customers, other contractual rights (e.g. arising from number portability agreements) and any consumer protection issues.
- 4.159 While customers could face disruption if they have to change their telephone numbers, we think the risk that CPs would disconnect customers is small. If it became clear that this is a significant issue, we would consider further how to deal with it. Consumer harm would be reduced if, for example, CPs were willing to pay some compensation if numbers are reclaimed (which is more likely if they want to retain customers – which we would expect them to be commercially incentivised to do).¹¹⁸

Reduced location integrity and ability to get a number with a local area code

- 4.160 We discussed in the November 2010 consultation that CPs might seek to reduce their need for additional number blocks in area codes subject to charging by using numbers from blocks in area codes where there is no charge.¹¹⁹ Out-of-area use of geographic numbers already happens and is permitted under the Numbering Plan provided that it is with the customer's consent and that call tariffs remain as expected for a number with that area code. We recognise that such an approach could adversely affect the individual consumer concerned (who may prefer a local number) and also consumers more generally, as if such a strategy became widespread, it could undermine the location significance of geographic numbers.

¹¹⁸ This could be contractual or in most cases will be at the discretion of the individual CP.

¹¹⁹ See paragraphs 6.113 to 6.115 of the November 2010 consultation.

4.161 However, we consider that this issue may not lead to significant consumer detriment because the market is competitive enough to ensure that consumers have an adequate choice of suppliers. Indeed, if consumers have a choice between a local number at a relatively high price and a non-local number at a lower price, they may choose the non-local number. We recognise that other consumers may place a value on retaining their local number, and they would not receive any compensation for the overall loss of location significance if many consumers break away from local numbers (due to retail price incentives). However, given the low level of the number charge and the modest anticipated impact on CPs, we consider it unlikely that CPs will be incentivised to introduce such pricing signals which might result in the dilution of location integrity.

Limited choice of provider for consumers with an ‘out of area’ code

4.162 For technical reasons, some CPs cannot accept ported in numbers with ‘out of area’ codes. Thus if consumers were encouraged to take ‘out of area’ codes by their original CP, they may be prevented from switching to other CPs unless they give up their number.

4.163 The fact that some CPs cannot accept ported in numbers with ‘out of area’ codes is already an issue today. Even though this would be exacerbated if charging led to a significant increase in the use of ‘out of area’ codes, we have noted above that we do not believe that this is likely to be the case.

Re-circulating numbers after a shorter sterilisation period

4.164 In theory, charging might result in CPs re-circulating previously used numbers after a shorter sterilisation period than is currently the case. This could result in an increase in calls made in error, leading to disruption and inconvenience for the caller, the party receiving the call made in error, and potentially the intended recipient of the call.

4.165 However, we consider that it is unlikely that a CP would manage the demand and supply of numbers so tightly that they needed to reuse numbers shortly after they become available. While the length of the sterilisation period is at the CP’s discretion, we do not consider that it is in a CP’s interest to reuse a number so quickly that the new customer would receive calls in error, because this means a poor customer experience (which is not in the CP’s commercial interest).

Implementation period for the pilot scheme

4.166 This sub-section is the first of several concerning issues which do not form the basis of our provisional decision to introduce charging for numbers but are nevertheless relevant with regard to the operation of the pilot scheme. We set out stakeholders’ comments and Ofcom’s response on each issue.

4.167 In the November 2010 consultation we suggested an indicative implementation period of six months between publishing a statement on number charging and charges in the pilot scheme area codes starting to accrue. Magrathea and VON suggested that we offer an extended implementation period in order to minimise the impact on small CPs, and avoid the possibility that CPs disconnect customers in order to return number blocks with low utilisation. We recognised that the possibility of CPs disconnecting customers is an important issue (discussed further in paragraphs 4.157 to 4.159 above). However, we do not propose to extend the implementation period because there is a danger that some area codes will run out of

numbers and require number supply measures which an earlier introduction of number charging could have postponed or prevented.

- 4.168 In the September 2011 statement and consultation we invited comments on our proposal to have an implementation period of six months between the publication of the final statement and charges starting to accrue in the pilot scheme area codes. We considered that stakeholders could start to plan their approach to charging before the final statement is issued based on the details of the pilot scheme provided in the September 2011 statement and consultation. We asked stakeholders:

Do you agree that the pilot scheme 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.

Stakeholders' comments

- 4.169 C&WW, Sky and [X] thought that, if Ofcom decided to implement number charging, then a six-month implementation period was reasonable.
- 4.170 BT thought that at least six months notice should be given before charging was introduced. It noted that the longer the period between the announcement of the area codes included in the pilot scheme and the date when charges start to accrue, the greater the lead time for CPs to return unused number blocks to Ofcom before the pilot scheme starts. It did not think that a longer implementation period would be material in terms of affecting demand for numbers, because 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.
- 4.171 BT did not consider that CPs would be able to start planning their approach to charging before the final statement is published due to uncertainty as to whether the pilot scheme would go ahead and which approach for ported and WLR numbers would be adopted. It considered that CPs would not spend money making changes to implement number charging until there was a clear set of requirements.
- 4.172 'Name Withheld 1' considered that if charging was inevitable, it was preferable that it was not immediate.
- 4.173 Virgin Media considered that we had not factored in the timing of the introduction of number charging alongside the introduction of number supply measures. It considered that closing local dialling will result in significant expense and resource requirements from CPs to configure their switching, update consumers and pay for/co-ordinate a public communication campaign. Virgin Media considered that closing local dialling would prevent the need for the introduction of an overlay code by a minimum of six years, and therefore it was not necessary for Ofcom to introduce number charging six months from the publication of the final statement. It considered that it was not proportionate for Ofcom to impose number charging if it is not required.¹²⁰

¹²⁰ Virgin Media made some further comments on implementing number supply and administrative measures before introducing the pilot scheme, and on charging only for numbers in use. We discussed these points under the 'Rationale for charging' section above.

Ofcom's response

- 4.174 Most stakeholders agreed that it was reasonable to introduce number charges six months after the final statement on number charging is published. This will give CPs a reasonable period to plan for number charging and return unused number blocks. Some unused number blocks have already been returned as a result of the audit in 2011 (when CPs were already aware of Ofcom's proposal to charge for numbers), and we do not consider that further number block returns in advance of implementing charging will be unmanageable.
- 4.175 We are proposing to introduce number charges on 1 April 2013 in order to align charging with the financial year. This is likely to provide longer than six months between the publication of the final statement and the accrual of charges. Further details around the implementation of number charges are set out in Annex 4.
- 4.176 We consider that the proposals in this consultation provide a reasonable basis for CPs who want to plan ahead. In Figure A4.1 we have set out the 30 area codes with the fewest number blocks remaining to be allocated based on current data (which would be captured by the pilot scheme). We do not think that the area codes included in the pilot scheme will change significantly from those indicated on this list.
- 4.177 Virgin Media considered that number charging should not be introduced at the same time as closing local dialling in the Bournemouth 01202 area code. We recognise that closing local dialling in the Bournemouth area and implementing the number charging pilot scheme will result in implementation costs for CPs. However, we consider it necessary to start the pilot scheme as soon as practicable to encourage efficient number use. This will help to avoid or postpone the costs to CPs and consumers due to the need to implement number supply measures (i.e. closing local dialling and overlay codes) in other area codes.

Assessment of the pilot scheme

- 4.178 In the September 2011 statement and consultation we noted that there is evidence that could be relevant in assessing the impact of number charging, including:
- the quantity of number blocks returned in area codes where charging is implemented compared with other area codes (over the same time period);
 - the quantity of new number blocks allocated in area codes subject to charging compared with other area codes (over the same time period);
 - the profile of demand for number blocks over time in area codes where charging is introduced, i.e. the quantity of blocks allocated before and after the introduction of charging;
 - the development of sub-allocation¹²¹ arrangements between CPs (e.g. any increase in the number of CPs offering or taking sub-allocated numbers after the introduction of charging); and

¹²¹ Sub-allocation is a commercial agreement between CPs, where one CP uses numbers which are allocated to a different CP. Sub-allocation may provide CPs with a mechanism to recover some of the cost associated with number charges. Sub-allocation was discussed in paragraphs 6.84 to 6.102 of the September 2011 statement and consultation.

- whether charging had resulted in any unintended consequences (e.g. CPs disconnecting consumers to return number blocks).

4.179 Another area we could consider is whether the introduction of charging for geographic numbers affects demand for other types of numbers, e.g. non-geographic numbers.

4.180 We also intend to introduce administrative measures which may affect demand for number blocks. For example, stricter rules around number applications might deter CPs from applying for blocks where demand is uncertain or where the application is primarily a form of insurance. Because these administrative measures will be implemented around the same time as the pilot scheme, it may be difficult to determine with precision whether number block returns and changes in the demand for number blocks are attributable to administrative measures, charging or a combination of the two.

Stakeholders' comments

4.181 BT, C&WW, Virgin Media, Sky and ITSPA all commented that the pilot scheme should have clear success criteria before any wider roll out is considered. BT considered that the criteria should be developed with industry and then set out in the final statement. Sky requested that Ofcom be specific about the criteria and how it will assess whether the pilot scheme trial has been a success (or otherwise).

4.182 C&WW thought that success could be determined by comparing block demand in area codes where charging is introduced with demand in area codes where charging is not introduced, i.e. lower block demand in area codes where charging is introduced might indicate that charging is successful. C&WW also suggested having different levels of charges within the pilot scheme area codes (e.g. one charge for 20 area codes and a lower charge for the remaining 10 area codes) to establish whether the proposed level of the charge was appropriate.

4.183 Virgin Media considered that it would be difficult to determine whether charging is effective when it is introduced alongside other measures (e.g. changes to the administrative processes for allocating numbers). To avoid this it considered that administrative measures should be introduced prior to charging.

4.184 'Name Withheld 1' requested clarification around the period the pilot scheme would last for and the proposed outcomes at the end of the pilot scheme.

Ofcom's response

Defining 'success criteria' for the pilot scheme

4.185 A number of CPs requested that we provide a more definite view on what 'success' might look like and the criteria that would have to be met for any wider roll out of charging. We recognise that the purpose of the pilot scheme is, in part, to provide the basis for a subsequent review, and we have indicated in paragraph 4.178 above the type of evidence that we can take into account to identify whether the pilot scheme has had an impact on the management of numbers. However, we think that providing a definitive list of criteria at this stage would not be helpful for the following reasons:

- different circumstances apply in different area codes, and it would therefore be difficult to set generic success criteria. Factors other than number charges will impact on the demand for number blocks by CPs, e.g. area codes are dynamic,

and the number of households and businesses may change which could have an effect on the demand for number blocks;

- other measures are proposed at the same time as number charging (i.e. administrative measures) which would make it difficult to isolate the impact of charging;
- number charging is a long-term solution to number management, and it is likely to take time for number charging to have an impact; and
- ex-ante specification of definitive criteria might create incentives for CPs to game the system to avoid wider implementation of number charging (e.g. CPs could deliberately adopt behaviour to make it appear that number charging is not successful).

4.186 Therefore, rather than setting out particular success criteria at the outset, we intend to evaluate the pilot scheme in the round taking into account the types of evidence referred to in paragraph 4.178. In doing so, we will focus on whether charging has any unintended consequences in the pilot scheme area codes.

Using number block demand to determine the impact of charging

4.187 C&WW suggested that we look at number block demand in area codes where charging is introduced compared to area codes where charging does not apply in order to determine the success of the pilot scheme. We agree that this would be useful, and we said in the September 2011 statement and consultation that we will consider such evidence, among other things, in assessing the impact of charging.

Different charging levels for area codes within the pilot scheme

4.188 C&WW suggested that we apply different charges for area codes within the pilot scheme to establish whether the level of charging was appropriate. We considered this approach in the November 2010 consultation but dismissed it on the basis that it would result in greater complexity.¹²² In addition, because areas are highly heterogeneous, it is unlikely that charging different amounts across the 30 pilot scheme area codes would reveal significant information, i.e. if demand for number blocks in one area code appeared particularly sensitive to a higher level of the charge (compared to another area code with a lower charge) it could either be a genuine reaction to charging or because of features which could be unique to that area, such as changes to the number of household or businesses.

Introduction of number charging and administrative measures at the same time

4.189 Virgin Media noted that it would be difficult to determine the impact of charging when it is introduced alongside other administrative measures. We agree that this presents a challenge, and it is one reason why we are not proposing to define specific success criteria at the outset. However, we do not propose to delay number charging until after the administrative measures have been implemented because there is a danger that some area codes will run out of numbers and require number supply measures, which an earlier introduction of number charging could have postponed or prevented. We do not consider that administrative measures alone are sufficient to manage number scarcity for the reasons discussed in the September 2011 statement and

¹²² See paragraph 6.58, Option 3 of the November 2010 consultation.

consultation.¹²³ We see the changes to the administrative procedure for allocating geographic numbers and the pilot scheme as complementary measures designed to safeguard the availability of numbers, rather than as substitute measures.

Proposed time period for the pilot scheme and outcomes at the end of the pilot scheme

4.190 'Name Withheld 1' requested clarification around the period the pilot scheme will last for and the proposed outcomes at the end of the pilot scheme. In the September 2011 statement and consultation we proposed to review the pilot scheme two years after launch (discussed below). We cannot anticipate the outcome following the pilot scheme before this review takes place. However, it is likely that we would continue to levy charges for the pilot scheme area codes unless material unintended consequences arise. Note (as set out in Annex 8) that the legal instrument is drafted to this effect (it does not contain a sunset clause).

Timing of review

4.191 In the November 2010 consultation we proposed to conduct the first review 18 months after the launch of the pilot scheme. In the September 2011 statement and consultation we reassessed this and proposed to have an initial review two years after launch (we noted that we might review earlier if unintended consequences were to arise). We considered that it may take longer to establish the impact of charging on demand for number blocks and other reactions to charging, e.g. developments in the sub-allocation market. Therefore we noted that we may have more than one review before we make a decision about the future of number charging and any potential roll out.

4.192 No stakeholders commented on the proposed time period set out in the September 2011 statement and consultation. We continue to propose an initial review of the pilot scheme around two years after launch, i.e. in 2015. We would continue to levy charges in the pilot scheme area codes while the review is ongoing.¹²⁴

Revenues from the pilot scheme

4.193 In the November 2010 consultation and September 2011 statement and consultation we proposed that any revenues received from the pilot scheme be passed to the Consolidated Fund of HM Treasury. We noted that this had merit because consumers, who are likely to bear the cost of charging through higher prices (based on the assumption that CPs pass number charges through), will receive an indirect benefit from the revenues raised. In addition, it is consistent with the approach in spectrum allocation which is administered by Ofcom, where revenues raised from administered incentive pricing (AIP) charges are passed to HM Treasury.

4.194 We consider that using number charging revenues to fund communications campaigns associated with supply measures – or other industry activities – could reduce the incentive for individual CPs to minimise the costs of these activities.

¹²³ See paragraphs 6.36 to 6.39 of the September 2011 statement and consultation.

¹²⁴ If charging for numbers continues after the pilot scheme, subsequent reviews could occur after longer or shorter intervals – this would be considered as part of the review of the proposed forthcoming pilot scheme. If charging for numbers continues after the pilot scheme, we propose that charges would not vary between reviews, i.e. once set the charge would apply for a minimum period up until the next review was undertaken.

4.195 We consider that using the revenues to reduce fees paid to Ofcom would benefit larger CPs relative to small CPs and thus would not meet our objective of minimising discrimination between CPs.¹²⁵ Furthermore, this could undermine the incentives to use numbers efficiently because a CP would effectively get numbers for ‘free’ up to the value of the annual fee it pays to Ofcom.

Stakeholders’ comments

4.196 C&WW urged that some revenues from charging be set aside to pay for publicising the number supply measures. BT, [S&C] and SSE supported this proposal. BT considered that using a small percentage of the revenues to fund consumer awareness campaigns when local dialling is closed in an area code would benefit all citizens affected and that the provisions in the Act would not necessarily preclude using the revenues from number charging in this way.

4.197 C&WW noted that each CP would be responsible for communicating the changes resulting from supply measures to its own customers (and bear the associated costs). However, it considered that there would be a requirement for a common communications campaign which would require common funding (e.g. similar to that required for the national code and number change in 2000).¹²⁶ It considered that, in the past, an inordinate amount of time and effort had been devoted by CPs to agreeing cost-allocation for these matters.

4.198 BT also noted that collecting small amounts of money from many CPs to fund such a campaign would be inefficient administratively, while only collecting money from larger CPs would be unfair. C&WW noted that if multiple CPs engage a communications agency, each then needs to contract with that agency, which has historically caused complications in agreeing legal terms.

4.199 To avoid the possibility that funds are not used efficiently, C&WW thought that Ofcom could benchmark the costs of such a campaign against previous number change campaigns and the aborted industry campaign associated with ‘21CN’ roll out.¹²⁷ It considered that if a finite sum could be put to one side then CPs would be incentivised to use it efficiently. BT did not think we had explained why using the revenues to fund a communications campaign would reduce the incentive for CPs to minimise these costs.

4.200 C&WW further noted that budgets are tight and that CPs may refuse to get involved in an industry-wide campaign meaning that Ofcom would have to publicise the changes itself.

4.201 [S&C] and SSE went further to suggest that number charging revenues should be used for purposes beyond communicating number supply measures. SSE suggested that the revenues could be used to fund some form of fixed line industry forum and any initiatives it undertakes. [S&C] thought that revenues should not be remitted to the Consolidated Fund at all, but instead should be reinvested in industry, e.g. by

¹²⁵ Discussed in paragraph 6.178 of the September 2011 statement and consultation.

¹²⁶ The National Code and Number Change programme (also known as the ‘Big Number’) was an extensive reorganisation of the UK’s telephone numbering plan between 1999 and 2001, which involved changes to some geographic, non-geographic and mobile numbers. Oftel (Ofcom’s predecessor for telecommunications’ regulation) brought together all the telephone companies and asked them to run the publicity campaign. The campaign was jointly coordinated and funded by industry under the name of ‘All the phone companies together’.

¹²⁷ This was a BT-run industry consultation process called Consult21 to support the then planned migration of BT’s network to its next-generation design known as ‘21CN’.

reducing the fees paid by CPs to Ofcom or for research. It considered that this would allay the concern that number charging would be viewed as general taxation and that the charge would increase in the future. It considered that a precedent for the 'recycling' of revenues into the agency collecting them exists, such as the scheme whereby income from speeding fines generated from safety cameras is passed back to the local authorities maintaining them.

- 4.202 ITSPA requested clarification on whether the money raised from the pilot scheme would be reinvested into the industry in some form and would welcome further discussions on how these revenues could best be used.

Ofcom's response

- 4.203 We recognise the importance of communicating to consumers the changes arising from number supply measures. The first area where a supply measure is required is in the Bournemouth 01202 area code, and we have been working with CPs through the 'Closing local dialling industry group' to ensure that adequate plans are in place for each CP to communicate the closure of local dialling to its own customers. We are also planning some wider communications to the community in the Bournemouth area. Our understanding is that CPs are not currently planning to fund a joint communications campaign to publicise the closing of local dialling in the Bournemouth 01202 area code, and therefore receiving funding from number charges for such a campaign are hypothetical in this case. Furthermore, given that we are proposing to close local dialling in the 01202 area code on 1 November 2012¹²⁸ (which is before number charges will start to accrue) there would not be any revenues from number charging to fund a communications campaign in this case.
- 4.204 However, we recognise that during the course of the charging pilot scheme, local dialling is likely to be closed in other area codes, and CPs or Ofcom may decide that a common communications campaign will be necessary.
- 4.205 If so, we recognise that agreeing the funding for a common communications campaign associated with number supply measures could be difficult. Consumers may suffer if there is insufficient information about the closure of local dialling due to problems around funding.¹²⁹ We also recognise that, if a predetermined amount of revenues from number charging was made available to fund a campaign based on the estimated cost of some predetermined activities (with CPs required to fund any shortfall), CPs could have an incentive to use the money efficiently.
- 4.206 Having considered these issues, nevertheless, we have decided not to use the revenues from number charging to fund a common communications campaign about supply measures because:
- returning the revenues from number charges to consumers and citizens via the Consolidated Fund is a simpler and more transparent approach. If we were to use a portion of number charging revenues to fund a common communications campaign then we would need to be very clear at the outset what the funds could and could not be used for, how much of the revenues could be used for this purpose and have a means of ensuring that this is adhered to. This would create

¹²⁸ See our proposals to close local dialling on 1 November 2012 in the Bournemouth 01202 area code in Section 3.

¹²⁹ An example of potential consumer detriment would be an increased frequency of mis-dialled calls (inconveniencing both callers and call recipients).

extra complexity and would involve an extra burden on Ofcom to administer the funds and ensure they were used efficiently;

- we are not convinced that we should use number charging revenues to fund a communications campaign because industry finds it 'difficult' to agree on a funding mechanism. Moreover, ring-fencing number charging revenues in this way has poor incentive properties – both in terms of incentives for industry to co-ordinate and/or for the likely level of industry spend; and
- we are concerned by the precedent that would be created if we used number charging revenues for such initiatives.

4.207 We therefore do not think that it is appropriate that number charging revenues should be used to fund a common communications campaign on the closing of local dialling in an area code. To address the risk of insufficient communications (if it appears to be a significant risk), we will consider direct Ofcom funding for such a campaign, if this was in consumers' interests and consistent with our duties.¹³⁰

Future of charging

4.208 [X] was concerned that number charging would be viewed as part of general taxation and number charges would rise in the future as a means to generate revenues for Government. Given the statutory framework, it would not be open to Ofcom to pursue a revenue-raising objective of this kind.

Other stakeholder comments

4.209 A number of stakeholders raised other comments in relation to our proposals which we discuss here.

4.210 ITSPA and [X] thought that we should bear in mind the potential impact charging would have when comparing fixed and mobile number ranges, given that we are not currently planning to charge for mobile numbers. [X] thought that charging just for geographic numbers would create a competitive distortion in favour of mobile networks. It thought that the principles of non-discrimination and technology neutrality would suggest that a commensurate amount should be recovered from the mobile sector.

4.211 [X] also stated that, to avoid the potential for disputes, we needed to make a clear statement on which CP should incur the costs associated with number charges where the end user of that number uses carrier pre-selection ('CPS'). In this case there may be multiple CPs providing a service on the same line.

4.212 C&WW asked how number blocks in four-digit area codes which have 5-digit local numbers would be treated for the purposes of number charging. For historic reasons, these telephone numbers are somewhat anomalous and have nine digits (excluding the leading '0'), whereas most telephone numbers have ten digits (e.g. a four-digit area code plus six-digit local number). Number blocks in four-digit area codes which

¹³⁰ The costs we incur relating to number allocation are recovered via the annual Networks and Services fees levied on certain CPs (those with a turnover of £5m or more), thus the costs associated with any common campaign that we run would ultimately be recovered from CPs (and assuming that CPs pass these cost through to consumers, reflected in higher prices). We acknowledge that CPs' individual contributions to a common industry-led campaign compared to an Ofcom-led campaign (though the fees levied) may be different.

only have five-digit local numbers generate one tenth of the amount of numbers compared to blocks with six-digit local numbers. C&WW thought that blocks with five-digit local numbers should be charged for as if they were structured efficiently and had six-digit local numbers, i.e. if the charge is 10p per number per year, then numbers with four-digit area codes and five-digit local numbers would cost ten times as much at £1 each per year.

Ofcom's response

Charging for non geographic numbers

4.213 The reason we are proposing to charge for geographic numbers is to encourage efficient number use and thus alleviate number scarcity which is a recognised problem in some geographic area codes. In the November 2010 consultation we proposed not to charge for non-geographic numbers (including mobile numbers) at this time on the basis that we have not identified number scarcity in these ranges. Although there are some specific pockets where numbers are relatively scarce, there are currently spare non-geographic sub-ranges that could be opened to meet future demand.¹³¹ We noted that we would keep this under review.

4.214 Geographic numbers have location significance for users, and the evidence suggests that measures to increase the supplies of geographic numbers result in adverse impacts for consumers and businesses (e.g. overlay codes could diminish the location significance of numbers and could cause confusion). By contrast non-geographic and mobile numbers have service rather than geographic significance, and the costs and impact associated with expanding supplies of these number ranges are likely to be lower.

Other services which use the telephone line

4.215 [3<] requested clarification about which CPs should incur the costs associated with number charging where the end user is a CPS customer. We set out our view on this in the September 2011 statement and consultation.¹³² We considered that the number is integral to the line rental and we expected that number charge costs would be recovered from the retail customer as part of the line rental charges. However, we noted that ultimately it is a commercial decision for CPs to determine how to recover the number charge costs and we would not seek to prescribe how CPs recover number charge costs from retail customers.

4.216 Where a CPS customer is renting an external WLR line then there will be no number charge costs associated with the number (these will be discounted for the range holder as discussed in paragraphs 4.127 to 4.133). Where a CPS customer is renting an internal WLR line (e.g. renting an exchange line from BT Retail) we expect that BT can recover the number charge costs as part of the line rental charges.

Four-digit area codes and five-digit local numbers

4.217 C&WW noted that blocks in four-digit area codes which have a five-digit rather than (the standard) six-digit local number result in an inefficient use of numbers. It

¹³¹ For example, if available numbers in the currently designated 'Special Services' number ranges 080, 084 and 087 run out, we can designate other 08X number ranges to provide more numbers. Similarly, if available numbers in the 090 and 091 'Special Services at a Premium Rate' ranges become scarce, we can provide additional premium rate numbers from the 092 to 097 ranges.

¹³² See paragraphs 6.206 to 6.207 of the September 2011 statement and consultation.

suggested that blocks with five-digit local numbers should be charged for as if they were structured efficiently and had six-digits.

- 4.218 Our objective in introducing number charging is to encourage efficient number use and we recognise that it would be more efficient (i.e. generate more numbers per area code) if all numbers in four-digit area codes had six-digit local numbers. To this end, we could try to encourage CPs to move consumers from five- to six-digit local numbers (thus increasing the number supply) by charging more for five-digit local numbers as proposed by C&WW.
- 4.219 However, converting these blocks from five- to six-digit local numbers would generate disruption for consumers because local numbers in use would change (i.e. an additional digit would be added to the beginning of the local number). We noted in the September 2011 statement and consultation that we would monitor demand in these area codes and decide in due course whether there is a need to disrupt consumers with a number change.¹³³
- 4.220 In the meantime we do not plan to charge a higher price for five-digit local numbers because, in light of the consumer impacts noted above, we are not convinced that we want to incentivise CPs to move to six-digit local numbers in these area codes. It is also possible that closing local dialling and introducing overlay codes (where necessary) would be a less disruptive way to expand number supply if necessary. A more detailed discussion around why we do not favour options which involve changes to existing telephone numbers is provided in the September 2011 statement and consultation.¹³⁴

Duties and legal tests

- 4.221 We set out the legal framework which describes our powers to raise charges for numbers under the Act in the November 2010 consultation.¹³⁵ In the September 2011 statement and consultation, we set out how we considered our proposals for number charging would likely meet Ofcom's duties and relevant legal tests in the Act. As explained in the September 2011 statement and consultation, we consider that a decision to charge CPs for geographic numbers in area codes with the fewest number blocks remaining to be allocated is consistent with our general duties in carrying out our functions as set out in section 3 of the Act.¹³⁶
- 4.222 In particular, we consider that charging on this basis furthers the interests of citizens in relation to communications matters and consumers in relevant markets by ensuring that geographic numbers are being used efficiently and thus remain available for allocation to different CPs in all area codes in the UK, facilitating CPs in their provision of communications services to consumers and citizens, and promoting competition and choice for consumers in the long term.
- 4.223 In reaching our proposals, we have also taken into account the Community requirements set out in section 4 of the Act, particularly the first requirement to promote competition in the provision of electronic communications networks, services and associated facilities through the ongoing availability of geographic numbers for allocation to CPs and use by consumers.

¹³³ See paragraph 4.145 of the September 2011 statement and consultation.

¹³⁴ See paragraphs 4.9 to 4.30 of the September 2011 statement and consultation.

¹³⁵ See paragraphs 6.20 to 6.27 of the November 2010 consultation. Also see paragraphs 2.24 to 2.27 of the November consultation which sets out our regulatory duties.

¹³⁶ See paragraph 6.264 of the September 2011 statement and consultation.

4.224 Section 58(1)(g) of the Act states that Ofcom may require payments in respect of the allocation of telephone numbers through a General Condition. We intend to implement the pilot scheme through the setting of new conditions in GC17. In doing so, we need to satisfy the tests set out in section 47(2) of the Act. These are that each condition must be:

- not such as to discriminate unduly against particular persons or a particular description of persons;
- proportionate to what the condition is intended to achieve; and
- in relation to what it is intended to achieve, transparent.

4.225 Section 47(2), as amended by the Electronic Communications and Wireless Telegraphy Regulations 2011, no longer requires that when setting conditions Ofcom needs to be satisfied that these are objectively justifiable in relation to the networks, services or facilities to which it relates. However, for completeness, we set out below why we consider that, in any event, the proposed measure is objectively justifiable (also see paragraphs 4.20 to 4.75 on the rationale of number charging).

4.226 We consider that introducing the pilot scheme meets the above tests (subject to further evidence arising from this consultation) for the following reasons:

- (i) **objective justification** – the objective of the pilot scheme is to help delay or prevent the use of disruptive and costly number supply measures in certain area codes. It will encourage CPs to take account of the social costs associated with making numbers available and provide an incentive to use numbers efficiently.¹³⁷ The area codes included in the pilot scheme have been identified on an objective basis (i.e. on the basis of the amount of number blocks remaining to be allocated).
- (ii) **non-discrimination** – we consider that our proposals are non-discriminatory because they would apply equally to all CPs who have number allocations in the pilot scheme area codes.
 - it has been questioned whether it is equitable to charge some CPs for numbers (due to their area of operation, or because they are fixed-line rather than mobile operators) while others would continue to use their numbers for free. Our case for introducing the pilot scheme is based on fact that geographic numbers are scarce in a number of area codes. We will continue to monitor number supply issues for other area codes and number types and consider in each case whether it is appropriate to take action.
 - number charging may create a disadvantage for CPs with low number utilisation across their allocated blocks relative to those with high utilisation because they have fewer customers from whom to recover the costs incurred from charges for geographic numbers. If this is the case, we consider that this is justified since the principal objective of introducing number charging is to provide incentives for CPs to improve number block utilisation rates. We have set out in paragraphs 4.117 a number of ways in which CPs with low utilisation could reduce the impact of charging.

¹³⁷ CPs are required under GC17.6 to secure that numbers are used effectively and efficiently.

- our proposal means that CPs using numbers under a regulated arrangement (porting and WLR) will not be charged for numbers, whereas the range holder will be charged for numbers allocated.¹³⁸ We recognise that this could result in an advantage for CPs primarily using ported and WLR numbers because they would have lower wholesale costs. However, we consider that for the pilot scheme there would not be any material (if any) impact on competition as the amounts involved are small. Also, significantly, it is the range holder that manages the use of number blocks, not the CP using the number under the regulated arrangements. Finally, it would create an additional administrative burden on Ofcom to recover charges from the CP using the number, and our costs would ultimately be passed on to CPs through our administrative fees.
- (iii) **proportionality** – we are proposing to introduce charging in a limited number of area codes and set the charge at a relatively low level in order to limit the impact on CPs and consumers. Taking account of the information provided by CPs on the costs of implementing the pilot scheme, our view is that number charging is a proportionate approach in relation to the aim of improving the efficiency of number use.
- as set out in this section, the overall impact of the charging under the pilot scheme is relatively small. The total revenues raised would be in the order of £2.1m¹³⁹ per year which compares with total fixed-line industry revenues of £9,315m in 2010. (See further paragraphs 4.110 to 4.146 for the potential impact on CPs and paragraphs 4.147 to 4.165 for the potential impact on consumers).
 - we have refined our original proposals in order to reduce the implementation costs for CPs (see paragraphs 4.127 to 4.133 and Annex 3 for a description of the discount scheme).
 - we are introducing charging in area codes with the fewest number blocks remaining to be allocated. Because this concerns only 30 area codes (out of 610 geographic number area codes), we anticipate that if there were to be any unintended consequences, their impact will be limited.
- (iv) **Transparency** – the detailed proposals and our underlying reasoning for making them have now been set out in three consultations. In this present consultation we note that, having considered stakeholder responses to the November 2010 consultation and the September 2011 statement and consultation, we have made the provisional decision to implement our policy decision to introduce charging in a pilot scheme. We propose to do so by amending GC17 (and specifically, by setting new conditions) and seek comments in particular on the wording of those amendments (Annex 8).

4.227 As regards process, pursuant to section 48A of the Act Ofcom has to publish a notification setting out the way in which conditions are to be set, modified or revoked under section 45. Section 48A(3) provides that Ofcom must publish a notification (a) stating that it is proposing to set, modify or revoke conditions; (b) setting out the effect of those conditions, modifications or revocations; (c) giving reasons for making the proposal; and (d) specifying the period within which representations may be

¹³⁸ The range holder will however receive a discount to its bill for ported or WLR numbers reflecting the cost to the CP 'per number used' (see paragraphs 4.127 to 4.133 and Annex 3).

¹³⁹ See footnote 77.

made to Ofcom about the proposal. We have met this requirement through the publication of this consultation document (specifically, this section and Annex 8).

- 4.228 In addition, we also consider that we are fulfilling our general duty as to telephone number functions as set out in section 63 of the Act by:
- **securing the best use of appropriate numbers**, in that charging for geographic numbers encourages CPs to use numbers efficiently and take the social costs associated with using numbers into account when deciding on their allocation requests; and
 - **encouraging efficiency and innovation**, in that charging increases the incentives for CPs to use numbers efficiently and hence may limit the need to make more new numbers available. This can help to ensure that a lack of numbers does not constrain competition and/or innovation.
- 4.229 In conclusion, we consider that our proposal to implement the pilot scheme meets the relevant legal tests as set out above.

Conclusion

- 4.230 We set out in the November 2010 consultation and the September 2011 statement and consultation how charging for geographic numbers could help reduce the need for new number supply measures which impose costs on consumers, CPs and Ofcom. At present we allocate geographic numbers at no charge, and CPs have little economic incentive to ensure that the available supply of numbers is used efficiently. Introducing a charge for numbers would give CPs stronger incentives to take the social costs of increasing number supply into account in managing their use of numbers.
- 4.231 Number charging is the norm in many other countries. Because this is the first time that charging for numbers would be introduced in the UK, we propose to introduce charging in a limited number area codes, targeting those area codes with the fewest number blocks remaining to be allocated. This means that the impact of charging can be assessed and the risk of unintended consequences tested.
- 4.232 In this consultation, we have discussed previous stakeholder comments on the proposals and set out our preference for the introduction of a pilot scheme. We have simplified the proposed approach for ported and WLR numbers to reduce CPs' implementation costs associated with cost recovery for such numbers, and we have included draft wording of the legal instrument to implement the pilot scheme.

Question 2: Do you have any comments on:
i) our view as to how the proposed pilot scheme meets the relevant legal tests in section 47(2) of the Act; and
ii) the proposed amendments to GC17 to implement the pilot scheme (set out in Annex 8)?

Section 5

Allocation of 100-number blocks

Introduction

- 5.1 In this section we look at how a specific change to the way that we allocate numbers in a limited set of area codes could result in more efficient use of numbers and delay or potentially eradicate the need for number supply measures in the area codes concerned. The proposed change involves making a limited quantity of smaller number blocks available for allocation to CPs in 11 areas with five-digit area codes.
- 5.2 First we set out the proposals put forward in the September 2011 statement and consultation for the limited roll out of blocks of 100 numbers. Following that, we summarise stakeholders' responses to the proposals and explain how we have taken these into account.
- 5.3 We then consider our position and set out what we plan to do next. We intend to proceed with our proposal to make up to 100 blocks of 100 numbers available for allocation in 11 areas with five-digit area codes. We are consulting further on our proposals and include in Annex 7 a draft notification of modifications to the Numbering Plan in order to define and implement 100-number blocks.
- 5.4 In Annex 5 we summarise and respond to general points on our review of our administrative processes for allocating geographic numbers that were raised in stakeholders' responses to the September 2011 statement and consultation.

The proposal for smaller number blocks to improve utilisation of allocated numbers

- 5.5 We allocate contiguous blocks of geographic numbers to CPs by area code. In the vast majority of area codes, the size of number block for allocation is 1,000 numbers.
- 5.6 As explained in Section 2, the number block size is determined by routing constraints in some long-established networks. Telephone networks analyse the digits of dialled phone numbers to decode the necessary information for routing and tariffing of calls. Some older networks use equipment designed many years ago to perform this function. The limited capacity of this equipment restricts the number of digits of each dialled phone number that those networks can decode into routing information. This means that the minimum size of block that we can allocate to any CP must be sufficiently large to accommodate these restrictions, as the older networks would not be able to analyse sufficient digits in dialled numbers to route calls if numbers were allocated in smaller blocks.
- 5.7 Allocations of 1,000 numbers may be larger than some CPs require in some areas, leading to inefficiency in number use. While any of the numbers from a block are in use, the CP to which the block has been allocated cannot return the remaining unused numbers in that block to us for allocation to another CP. Allocation of numbers in blocks smaller than 1,000 numbers would therefore enable some CPs to obtain an allocation of numbers that more closely matches their needs. Given the potential for smaller number blocks to increase efficient use of numbers, we decided to examine the feasibility of allocating smaller number blocks as part of our review of geographic number management.

- 5.8 The November 2010 consultation concluded that, due to the digit decoding resource constraints in legacy local exchange equipment deployed on some networks, it would not be justifiable to reduce the common number block allocation size from 1,000 numbers in all Conservation Areas and 10,000 numbers in Standard Areas.¹⁴⁰ Nevertheless, our preliminary assessment, based on the information available at that time,¹⁴¹ was that a limited number of blocks of 100 numbers might be supported by the available decoding resources in the telephone switches, although the extent of this is very difficult to determine
- 5.9 Recognising the uncertainty regarding the extent of spare digit decoding resources available on legacy network switches, we proposed to limit the roll out of smaller blocks to help CPs who face network constraints to better understand the pressure of smaller blocks on decoding resources while containing the impact.
- 5.10 In the September 2011 statement and consultation we considered the possibility of allocating geographic numbers in blocks of 100 numbers in addition to blocks of 1,000 numbers in the 11 areas with five-digit area codes.

Why we proposed the 11 five-digit area codes for the limited roll out of 100-number blocks

- 5.11 The Numbering Plan contains 11 area codes with numbers in the format of '0' plus five-digit area code and five-digit local number. These area codes have a particular scarcity of numbers due to this code and number structure, which provides only 79,000 numbers in each area code.¹⁴² This is in contrast to four-digit area codes (the general area code structure) which have 790,000 numbers available.
- 5.12 In the November 2010 consultation, we considered that five-digit area codes would require a specialised response to relieving scarcity of numbers and that the approach for the four-digit area codes might not be suitable for the five-digit area codes. This was because closing local dialling would generate a relatively small quantity of additional numbers in five-digit area codes and we considered that introducing an overlay code in those areas would be a disproportionate solution.
- 5.13 We proposed an alternative number supply measure in the November 2010 consultation. This measure was to merge each five-digit area code with its corresponding four-digit area code to create numbers with four-digit area codes and six-digit local numbers. For example, Langholm's area code, currently 013873, would be changed to the 01387 area code that serves Dumfries.¹⁴³ Local dialling

¹⁴⁰ A 'Conservation Area' is defined in the Numbering Plan as "a geographic area that Ofcom believes has a realistic expectation of number exhaustion within the next five years". Numbers are allocated in blocks of 1,000 in Conservation Areas. A 'Standard Area' is defined in the Numbering Plan as "a geographic area that Ofcom believes does not have a realistic risk of exhaustion within the next five years". Numbers are allocated in blocks of 1,000 in Standard Areas. Further information is provided in paragraphs A1.46 to A1.50.

¹⁴¹ We gathered information from larger CPs on network decoding constraints and the ability to handle numbers allocated in blocks of 100 through a formal information gathering exercise in August 2010. We also took into account CPs' views on 100-number block allocations provided in response to the November 2010 consultation.

¹⁴² The area code and local number structure of a five-digit area code provides 100,000 numbers in the format 01XXXX 00000 to 99999. However, this reduces to 79,000 numbers, as local numbers beginning with '0' and '1' can not be used for technical reasons while local dialling is allowed, and local numbers beginning with '99' are protected to avoid misdials to the '999' emergency number.

¹⁴³ This would mean that all existing Langholm numbers, which are of the form 013873 XXXXX, would become 01387 3XXXXX. While the digits in each full phone number would not change, users dialling

would be provided at the six-digit local number level and any subsequent shortage of local numbers would be addressed in the same way as for other four-digit area codes. We recognised in the November 2010 consultation that this solution would disrupt consumers in the relevant areas as a number change would be required and the more specific location significance inherent in each number would be diminished.

- 5.14 In light of responses to the November 2010 consultation, which raised concerns with merging four- and five-digit area codes,¹⁴⁴ we considered whether alternative measures that would not affect local consumers could be introduced to increase the supply of number blocks available for allocation in the five-digit area codes.
- 5.15 As each of the codes cover areas with a relatively low population (that is, lower than 21,000 people), we considered that allocating smaller blocks of numbers might have a role to play in matching allocated block size to realistic customer requirements. Demand for numbers in the five-digit area codes is mainly driven by CPs wanting the ability to offer a service in those locations rather than a realised consumer demand for numbers, and smaller number blocks could more effectively meet this objective.
- 5.16 We therefore looked at whether introducing 100-number block allocations in the five-digit area codes could potentially postpone the need for supply measures and their associated disruption for local consumers. We concluded that they were likely to do so for a considerable time and we therefore proposed in the September 2011 statement and consultation that the 11 five-digit area codes were suitable candidates for the limited roll out of 100-number blocks.

Details of the proposal in the September 2011 statement and consultation for 100-number block roll out

- 5.17 In the September 2011 statement and consultation we sought stakeholders' views on the details of our proposal to introduce 100-number block allocations in the 11 five-digit area codes. We summarise the proposed approach put forward for consultation below:
- the areas that would form part of the initial roll out are:
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);
 - we would make up to 100 blocks of 100 numbers (i.e. 10,000 numbers) available for allocation in each area code;
 - numbers would also be available for allocation in blocks of 1,000 numbers in these area codes;
 - the CP applying for the number allocation would need to justify the appropriate block size for allocation by stating the predicted demand for numbers on the number application form;

locally (i.e. without the area code) from fixed-line phones would need to prefix existing Langholm five-digit local numbers with the digit '3'.

¹⁴⁴ See the summary of stakeholders' comments on number supply measures for five-digit area codes and our response in the September 2011 statement and consultation paragraphs 4.151 to 4.177.

- applications for 100-number blocks would be considered on a ‘first come first served’ basis; and
 - we would open one 1,000-number block for allocation as ten blocks of 100 numbers at a time.
- 5.18 We explained that if, following consultation, we decided to proceed with the proposal for 100-number blocks, we would consult on modifications to the Numbering Plan to set out the area codes where 100-number blocks are available for allocation and to explain how we consider the proposed modifications would meet the relevant legal tests.¹⁴⁵
- 5.19 As well as seeking stakeholders’ views on our proposal for 100-number blocks, we also asked CPs to consider the feasibility, costs and timescales associated with implementation if we were to proceed. We explained that we would like to allocate 100-number blocks in the proposed area codes (if considered feasible and proportionate to do so) as soon as CPs can accommodate the necessary changes to their switches. The earlier we are able to implement 100-number block allocations, the greater the potential for avoiding disruptive number supply measures in the area codes concerned.
- 5.20 We needed to understand more about the impact of this proposal on CPs and asked the following questions in the September 2011 statement and consultation:

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)

To 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?

To 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?

Stakeholders’ comments

Agreement with the 100-number block proposal as set out in the September 2011 statement and consultation

- 5.21 Comments on the 100-number block proposals were received from BT, C&WW, ITSPA, ‘Name Withheld 1’, Sky, Virgin Media, two individuals¹⁴⁶ and [X].
- 5.22 All respondents to this question apart from Virgin Media supported the general principle of allocating a limited quantity of numbers in smaller blocks to improve utilisation rates. Those respondents also agreed that a limited roll out of 100-

¹⁴⁵ Further information on the legal tests that we must meet before modifying the Numbering Plan is provided in Annex 6.

¹⁴⁶ Mr J. Diamond and Mr C. Stuart.

number blocks in the five-digit area codes would be a proportionate way of trialling this initiative.¹⁴⁷

- 5.23 BT supported the 100-number block proposal as an appropriate solution to number block shortage in the 11 five-digit area codes. BT welcomed the proposals' ability to increase the supply of number blocks while avoiding measures that would impact consumers and would disrupt industry to a greater degree, such as number changes through merging four- and five-digit area codes.
- 5.24 [S<] welcomed the 100-number block initiative, seeing it as a substantial step towards more granular routing principles within industry. It argued that legacy network providers' unwillingness to invest in innovative and modern technology should not be an excuse or barrier to the implementation of 100-number blocks as a means of preserving the supply of numbers.
- 5.25 BT and C&WW stressed, however, that their support of 100-number block allocations in the 11 area codes proposed was not an acceptance of implementing more widespread use of smaller number blocks or the ability to handle this measure in other area codes. BT commented that feasibility of 100-number block allocations needed to be considered on an area-by-area basis and could not be supported economically on all of its switches. BT and C&WW submitted that further consultation was required before extension of 100-number blocks to other area codes could be progressed.
- 5.26 Although [S<] considered that it could handle routing at a finer level across its network, it highlighted the additional administrative burden on routing plans of handling ten times the number of allocations. However it did not consider that there would be a material impact from the limited roll out currently planned.
- 5.27 ITSPA encouraged a more extensive roll out of 100-number blocks where possible as a fundamental step in preserving the current supply of geographic numbers in more area codes. It commented that this was an initiative that its members had requested for some time, as many did not want larger blocks of numbers, and therefore a choice of blocks of 100 and 1,000 numbers would more closely meet CPs' requirements. While ITSPA recognised that the delay in Next Generation Network ('NGN') deployment and the constraints of legacy networks prevented 100-number block allocation in some area codes, it considered there to be a definite opportunity for Ofcom to extend 100-number allocations to more than the 11 area codes proposed.
- 5.28 'Name Withheld 1' also commented that smaller allocations would be hugely beneficial to smaller providers in area codes where a block of 1,000 numbers would greatly exceed demand for many years or even decades.
- 5.29 One individual (Mr J. Diamond) encouraged Ofcom to extend the 100-number block initiative to all area codes by 2012. Mr Diamond expressed his opposition to number supply measures and the resulting disruption for consumers and considered that it was CPs' inefficient use of numbers that created number scarcity in certain area codes. Instead CPs should be forced to use numbers more efficiently, including being allocated smaller number blocks. Mr Diamond also advocated charging for numbers, forcing return of unused number blocks and promoting investment in NGN technology.

¹⁴⁷ See Sky's comments in paragraph 5.30 on reducing the number of five-digit area codes included in the roll out from 11 to eight based on forecast number exhaustion.

- 5.30 Sky suggested reducing the number of five-digit area codes accommodating 100-number blocks to the eight areas forecast in the September 2011 statement and consultation to run out of numbers before 2016.¹⁴⁸ This would exclude Raughton Head (016974) and Sedbergh (015396) which were forecast to run out of numbers between 2016 and 2018 and Wigton (016973), which was forecast to run out of numbers between 2019 and 2021.
- 5.31 Virgin Media did not support the use of 100-number block allocations to improve efficient use of numbers due to the impact on legacy network switches.

Feasibility of handling up to 10,000 numbers in blocks of 100 in the 11 area codes proposed

- 5.32 BT, C&WW, 'Name Withheld 1', Sky and [redacted] confirmed that the 100-number block proposal would be feasible on their networks if implemented within the limitations set out in the September 2011 statement and consultation.
- 5.33 [redacted] Virgin Media welcomed the proposal to retain blocks of 1,000 numbers for allocation to CPs who could justify that level of demand and also argued that such blocks should continue to be available to CPs whose infrastructure did not support 100-number blocks.
- 5.34 BT saw no pressing need to make 100 blocks of 100 numbers available immediately, given the low customer demand in these area codes. BT suggested setting aside 30 blocks of 100 numbers (preferably taken from the same 10,000 number block) in each area code for the initial roll out, as this should be sufficient to meet mid-term demand in the proposed areas. BT supported our proposal to make only ten blocks of 100 numbers available for allocation at a time, and to take these from the same 1,000-number block to limit the impact on network decode resource.
- 5.35 C&WW requested confirmation that 100-number blocks would be created via the splitting of unused and unallocated blocks of 1,000 numbers. It considered that an alternative approach of withdrawing and reallocating unused 100-number blocks from allocated 1,000 number blocks was unlikely to be supportable owing to the ten-fold increase in data decode block requirements.
- 5.36 Sky, on the other hand, suggested that if CPs were able to return unused numbers to Ofcom at the 100-number block level, this would extend the availability of number blocks for subsequent reallocation. Sky asked for Ofcom's confirmation that it could accommodate the return of blocks at the 100-number level.

Predicted costs and timescale requirements to implement the 100-number block proposal

- 5.37 CPs provided little detail on potential timescales and costs for implementation. C&WW commented that the 100-number block proposal would only impact those CPs which take a 100-number block allocation, and those CPs with wide connectivity, rather than the industry as a whole.
- 5.38 BT estimated that it could support the proposed 100-number blocks in the 11 area codes by mid-2012 at a cost of [redacted].
- 5.39 C&WW did not regard the lead time required to implement the change on its network switches as material. However, more detailed comment could not be provided until we clarified how the 100-number block allocations would be shown in

¹⁴⁸ See Figure A2.8 in Annex 2 of the September 2011 statement and consultation.

the numbering database published on our website.¹⁴⁹ C&WW commented that CPs import the database into their systems and changes to the format can be disruptive. It requested that we provide visibility of how we intend to display 100-number block entries in the database (for example, would there be an additional column to show 100-number block allocations), as the speed of implementation would be driven by the time required for C&WW's network system developers to make any changes necessary to incorporate the Ofcom numbering database.

- 5.40 ITSPA commented that as its members operated over NGNs, they were already able to handle smaller number blocks. In general, therefore, implementing 100-number blocks would not have major cost or timescale implications for its members. 'Name Withheld 1' commented that no changes would be necessary for it to implement 100-number blocks.
- 5.41 Sky, although unable to confirm associated costs or timescales, did not anticipate significant costs to implement the 100-number block proposal. [§<].
- 5.42 [§<] estimated that it would require no more than one engineering man day for implementation once 100-number blocks are allocated and form part of BT's Element Based Charging ('EBC') matrix.¹⁵⁰

Other comments on 100-number block allocation

Extended link numbering scheme (ELNS) area codes

- 5.43 BT asked us to clarify whether ELNS¹⁵¹ area codes were experiencing number shortages in their distinct locations and, if so, whether 100-number blocks might be helpful in meeting future CP demand for numbers. BT considered that this would be preferable to merging ELNS areas within the same area code to create a general pool of numbers to meet demand. The use of 100-number blocks would support the integrity of location significance in ELNS areas. BT also commented that it treated the different locations within the ELNS area codes as discrete charge group areas and therefore any plans to merge areas within the same area code may have an impact on the cost of calls to and from the areas concerned.
- 5.44 BT also questioned whether distinct locations in ELNS area codes should be considered for number charging under the proposed pilot scheme, replacing other area codes where the supply of number blocks appeared more plentiful.¹⁵²

Measuring success of the proposed 100-number block roll out

- 5.45 Sky requested more information on how we proposed to assess the success of the 100-number block pilot.

¹⁴⁹ The numbering database is available on the Ofcom website at <http://stakeholders.ofcom.org.uk/telecoms/numbering/telephone-no-availability/numbers-administered/>. It provides a day-to-day record of number block status.

¹⁵⁰ Element Based Charging ('EBC') is a the wholesale charging methodology which BT uses to charge CPs for their use of the BT network.

¹⁵¹ ELNS areas share the same area code in the 01XXX format and further define location significance by the first digit of the local number. There are 14 four-digit area codes with ELNS significance. This location significance is set out in Appendix A of the Numbering Plan. Further explanation on ELNS area codes is provided in paragraphs A1.20 and A1.21.

¹⁵² Section 4 considers stakeholders' comments on our charging proposals. However, we have included BT's comment on charging and ELNS area codes here for completeness in considering BT's comments on number block scarcity in the distinct locations within each ELNS area code.

Ofcom's response

Agreement with the 100-number block proposal as set out in the September 2011 statement and consultation

- 5.46 We welcome CPs' general support for a limited roll out of 100-number blocks and for accepting it as a potential solution to number block demand in the 11 five-digit area codes. We recognise that CPs with legacy network switches expect to face constraints in decoding further digits and we appreciate CPs' willingness to investigate the impact on their networks.
- 5.47 We agree with BT's and Sky's comments that there is merit in allocating a limited supply of smaller number blocks in area codes where they are likely to be effective in meeting realistic consumer demand for numbers. Doing so could help to defer or even eradicate the need for number supply measures in some areas, particularly those with low customer demand for numbers such as the locations covered by the 11 five-digit area codes.
- 5.48 Given the uncertainty over the impact on legacy networks from routing calls to numbers allocated in 100-number blocks, we agree with the CPs likely to be affected by decoding constraints that it would be appropriate to proceed with a very limited roll out to assess the impact. While it may aid better utilisation of numbers if smaller blocks could be rolled out more extensively, it would not be appropriate to do so until we and CPs understand the implications better.
- 5.49 We have considered Sky's arguments for excluding from the initial roll out the three five-digit area codes which were predicted to run out of numbers after 2016 (according to the September 2011 forecast). According to our latest forecast, four five-digit area codes are now predicted to run out of numbers after 2016.¹⁵³ However, we consider it would be prudent to make 100-number blocks available in these area codes, as although their forecast number scarcity may not be as acute as the other five-digit area codes, only Wigton (016973) is forecast to have sufficient numbers to last for more than ten years. Also, we do not anticipate that including the four area codes that are forecast to have sufficient numbers to last beyond 2016 would have a significant impact on CPs' decoding resources.

Feasibility of handling up to 10,000 numbers allocated in blocks of 100 in the 11 area codes proposed

- 5.50 Taking CPs' comments into account, it appears feasible that CPs can handle up to 10,000 numbers allocated in blocks of 100 in the 11 area codes proposed. We recognise Virgin Media's concerns over its ability to accommodate numbers allocated to it at the 100-number block level but note that Virgin Media did not rule out the feasibility of the limited roll out proceeding.
- 5.51 We do not consider that allocation of 100-number blocks in accordance with the proposals in the September 2011 statement and consultation would create an unreasonable administrative burden on CPs. With reference to concerns over the impact on routing tables, we propose, at least initially, to release a maximum of 100 blocks of 100 numbers in each five-digit area code. We would open only one block of 1,000 numbers in 100-block units at a time, and this will limit the additional levels

¹⁵³ These area codes are Raughton Head (016970) and Sedbergh (015396) by 2018, Appleby (017683) by 2021 and Wigton (016973) by 2024.

entered into the routing tables. It will also reduce the impact on processing information from our numbering database.

- 5.52 We have considered BT's suggestion of setting aside only 30 blocks of 100 numbers (preferably taken from the same 10,000 number block) in each area code for the initial roll out, which it considered should be sufficient to meet medium-term demand. However, we have decided to retain the proposed maximum of 100 number blocks for the initial roll out. Our forecast for number block availability suggests that 30 blocks of 100 numbers in each five-digit area code would be likely to meet demand for a minimum of four years and under six years on average, whereas 100 blocks of 100-numbers would likely extend number availability in the five-digit area codes for a minimum of 13 years and for 21 years on average. We consider it prudent to plan for demand for at least the next ten years by setting aside 100 rather than 30 blocks of 100-numbers in each area code. A particular consideration is the reduced impact on network switches if the 100-number blocks are created from unallocated 1,000-number blocks rather than withdrawing unused 100-number units from allocated number blocks and reallocating these to other CPs. It is therefore preferable to plan for longer term demand now. In addition, we will only open one block of 1,000 numbers in 100 number units at a time, and therefore we will only use more than 30 blocks of 100-numbers if and when demand requires.
- 5.53 The 100-number blocks would be made available from unallocated 1,000 number block units. We do not propose to withdraw unused 100-number units from allocated 1,000-number blocks at this point, as we recognise this would create an additional impact on decode resource (as more 1,000-number blocks would be split into smaller units). However, we may consider this approach further once we have assessed the impact on CPs' networks of initial 100-number allocations and discussed the next steps with industry. In response to Sky's comment, we can confirm that Ofcom could potentially accommodate a managed process of withdrawing allocated but unused 100-number blocks from CPs and making these available for reallocation.
- 5.54 We agree with Virgin Media that it would be appropriate for the size of number block allocated to reflect the CP's forecast demand for numbers as closely as possible. The demands of CPs can vary greatly and it would not be efficient to allocate multiple 100-number blocks rather than one 1,000 number block in an area code to the same CP, as it would create a decoding resource burden without improving utilisation. For this reason, blocks of 1,000 numbers will remain available for allocation in area codes where we introduce 100-number blocks so that we can match the most appropriate block size to the CP's likely requirement. In response to Virgin Media's comment, we would also take into account the feasibility of the CP accommodating 100-number blocks when deciding the most appropriate block size for allocation.

Predicted costs and timescale requirements to implement the 100-number block proposal

- 5.55 We understand from CPs' responses that it is difficult to provide detailed predictions of costs and timescale requirements to implement the proposals for 100-number blocks. However, the general view expressed by BT, C&WW, ITSPA, Sky and [X] was that these were not anticipated to be significant.
- 5.56 C&WW commented on the potential impact on CPs that may result from the way that we set out 100-number blocks in our numbering database. We want to implement 100-number blocks in a manner that causes the least disruption for CPs.

However, we also need the database to state clearly the size of the number block and the CP to whom a number block has been allocated. This information is required to route calls to the appropriate CP for termination.

- 5.57 In order to make the relevant information clear on the database, we intend to adapt the column that sets out the digit allocation at the 1,000-number block level to also show the additional digit allocated to create a block of 100 numbers. This would ensure that the format of the database is not changed and should facilitate CPs importing the database.
- 5.58 Having taken CPs' comments into consideration, we do not consider costs or implementation lead time to be a barrier to implementing our proposals for 100-number blocks. If we decide to proceed following this consultation, we propose to make ten blocks of 100-numbers available for allocation in each of the 11 five-digit area codes upon publication of the concluding statement and modified Numbering Plan. We anticipate this to be in July 2012.

Other comments on 100-number block allocation

ELNS area codes

- 5.59 We have considered BT's comments in relation to forecast demand for numbers in the ELNS area codes and whether 100-number block allocation might have a part to play in helping to meet CP demand and in preserving the location significance inherent in the first digit of the local number.
- 5.60 Figure 5.1 below sets out the ELNS area codes, the number of available blocks as at 21 January 2012 and our forecast for when each distinct ELNS location (i.e. as indicated by the first digit of the local number) will run out of available number blocks.

Figure 5.1 ELNS area codes

| Area code | ELNS location and relevant first digits of the local number | Number of blocks available as at 21 January 2012 | | Forecast of ELNS location exhaustion |
|-----------|---|--|----------------|--------------------------------------|
| | | ELNS area | Total for area | |
| 01229 | Barrow-in-Furness (2,4,5,6,8) | 126 | 270 | 2026 |
| | Millom (3,7,9) | 144 | | 2028 |
| 01339 | Aboyne (2,3,5,8) | 230 | 480 | 2044 |
| | Ballater (4,6,7,9) | 250 | | 2052 |
| 01388 | Bishop Auckland (3,4,6,7,8,9) | 319 | 418 | 2049 |
| | Stanhope (2,5) | 99 | | 2025 |
| 01423 | Boroughbridge (3,4,9) | 155 | 284 | 2033 |
| | Harrogate (2,5,6,7,8) | 129 | | 2026 |
| 01430 | Market Weighton (6,7,8,9) | 172 | 366 | 2039 |
| | North Cave (2,3,4,5) | 194 | | 2038 |
| 01434 | Bellingham (2,4,9) | 187 | 453 | 2036 |
| | Haltwhistle (3,5) | 107 | | 2032 |
| | Hexham (6,7,8) | 159 | | 2034 |
| 01437 | Clynderwen (2,3,4,5) | 230 | 355 | 2045 |
| | Haverfordwest (6,7,8,9) | 125 | | 2029 |
| 01507 | Alford (Lincs) (4,8,9) | 153 | 364 | 2037 |
| | Louth (3,6,7) | 130 | | 2037 |
| | Spilsby (2,5) | 81 | | 2023 |
| 01686 | Llanidloes (2,3,4,7) | 199 | 345 | 2038 |
| | Newtown (5,6,8,9) | 146 | | 2031 |
| 01847 | Thurso (2,3,4,5,8) | 252 | 431 | 2032 |
| | Tongue (6,7,9) | 179 | | 2071 |
| 01851 | Great Bernera (4,6,9) | 155 | 401 | 2043 |
| | Stornoway (2,3,5,7,8) | 246 | | 2039 |
| 01890 | Ayton (5,6,7,9) | 238 | 409 | 2051 |
| | Coldstream (2,3,4,8) | 171 | | 2032 |
| 01964 | Hornsea (2,5,8,9) | 196 | 393 | 2033 |
| | Patrinton (3,4,6,7) | 197 | | 2043 |
| 01975 | Alford (Aberdeen) (2,4,5,9) | 228 | 521 | 2047 |
| | Strathdon (3,6,7,8) | 293 | | 2053 |

- 5.61 We note that the distinct ELNS locations are forecast to have sufficient number blocks to meet demand until at least 2023 (and far beyond in many locations). In light of this forecast, we consider that the future of number supply in ELNS area codes is an issue for Ofcom to consider further but that there is not an immediate need to consult on changes to address this situation. Subject to the efficacy of the proposed 100-number block roll out in the 11 five-digit area codes, we may consider consulting on the feasibility of supporting 100-number block allocations in some or all of the ELNS area codes, as suggested by BT.
- 5.62 There are alternative measures that could also be considered for ELNS area codes, such as removing the location significance inherent in the first digit of the local number so that the pool of remaining number blocks in each area code could be used across the associated locations. However, this would diminish the location

significance of numbers in ELNS area codes, which would have a negative impact on consumers. Any future proposals to address number demand in the ELNS area codes will be consulted on.

- 5.63 We have also considered BT's suggestion that the distinct locations within ELNS area codes be treated separately in terms of assessing number block availability for inclusion in our proposed pilot scheme for number charging. Based on number block availability as at 21 January 2012, our analysis shows that five ELNS locations¹⁵⁴ would displace area codes on a list of the 30 area codes with the fewest number blocks available for allocation. A comparison of forecast dates for number exhaustion shows that the five ELNS locations are predicted to run out of number blocks between 2023 and 2032, whereas the replaced area codes in the indicative list of area codes for inclusion in the pilot scheme¹⁵⁵ are forecast to run out of number blocks earlier, being between 2019 and 2023. While the method for selecting the area codes for the pilot scheme is based on the 30 area codes with the fewest number blocks remaining, in this specific case we do not consider it appropriate to include the distinct ELNS locations within each ELNS area code. Also, in each ELNS area code, the level of availability of number blocks in the area code as a whole would not see it entered on the indicative list of area codes for inclusion in the pilot scheme.¹⁵⁶
- 5.64 Given this analysis, we have decided not to adopt BT's suggestion of considering ELNS locations separately for inclusion in the pilot scheme. We will continue to consider inclusion based on number block availability in the area code and will not further refine this analysis based on location significance inherent in the local number.

Measuring the success of the proposed 100-number block roll out

- 5.65 Sky requested information on how we might measure the success of the proposed 100-number block pilot. We think it is useful to explain that we are not proposing to treat the roll out as a pilot, in that the activity would not be regarded as a test or trial to be evaluated at the end of a set period. Rather, the limited roll out would allow CPs and us to monitor any negative consequences on the telecoms networks in relation to the routing of calls to numbers allocated in 100-number blocks.
- 5.66 Monitoring the impact on networks will aid assessment of any future proposals for 100-number block roll outs, either in other area codes or for increasing the quantity of 100-number blocks available in the 11 five-digit area codes. As allocated 100-number blocks progress through CPs' data management amendment processes, and are subsequently allocated to end-users and calls made to the numbers, CPs will be able to monitor any detrimental effects and report these to Ofcom.

¹⁵⁴ Those distinct ELNS locations are Barrow-in-Furness (01229 2,4,5,6,8), Haltwhistle (01434 3,5), Haverfordwest (01437 6,7,8,9), Spilsby (01507 2,5) and Stanhope (01388 2,5). Figure 5.1 sets out the number of 1,000-number blocks available in the ELNS locations as at 21 January 2012.

¹⁵⁵ The replaced four-digit area codes in the indicative list would be Aldershot (01252), Barnsley (01226), Camberley (01276), Chester (01244) and Warrington (01925). Figure A4.1 in Annex 4 provides an indicative list of area codes for inclusion in the pilot scheme.

¹⁵⁶ The 01229 area code, which covers the ELNS locations of Barrow-in-Furness and Millom, has the fewest number of blocks available, with 270 blocks as at 21 January 2012. The 30 area codes with the fewest blocks available on the indicative list for the pilot scheme (see Figure A4.1) have between 16 and 128 blocks available for allocation.

- 5.67 We propose that once allocated in blocks of 100, the numbers would remain in that size unit. To do otherwise (i.e. to subsequently group the numbers into blocks of 1,000) would cause disruption to any customers using the numbers, as the 100-number blocks would be allocated to different CPs and withdrawal of the numbers would be required.
- 5.68 In the event that the roll out of 100-number blocks results in an unexpected and significant impact (for instance, that rendered the routing of calls to numbers allocated unfeasible), then we would need to assess with industry the most appropriate response.

Preliminary conclusions

- 5.69 Having considered stakeholders' comments on our proposals for a limited roll out of 100-number blocks, we intend to make available for allocation up to 100 blocks of 100 numbers in each of the following 11 five-digit areas - 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).
- 5.70 We consider this action would enable us to make best use of the numbers remaining available for allocation in these area codes and would avoid the need for number supply measures for a considerable time. The proposed limited roll out would help us to understand the effectiveness of smaller blocks and assist CPs who face network constraints to better understand the pressure of 100-number block allocations on decoding resources while containing the impact.
- 5.71 Figure 5.2 below illustrates the number of 1,000-number blocks remaining available for allocation in the 11 five-digit area codes as at 21 January 2012 and the effect of 100 blocks of 100-numbers on number block availability in those area codes.

Figure 5.2 Block availability in the five-digit area codes proposed for 100-number block roll out

| Area code | Area | 1,000-number blocks available as at 21 Jan 2012 | If 100-number blocks implemented | | |
|-----------|-------------------|---|----------------------------------|---------------------|------------------------|
| | | | 100-number blocks | 1,000-number blocks | Total number of blocks |
| 013873 | Langholm | 17 | 100 | 7 | 107 |
| 019467 | Gosforth | 19 | 100 | 9 | 109 |
| 015394 | Hawkshead | 19 | 100 | 9 | 109 |
| 015242 | Hornby | 20 | 100 | 10 | 110 |
| 016973 | Wigton | 31 | 100 | 21 | 121 |
| 015395 | Grange over Sands | 24 | 100 | 14 | 114 |
| 017687 | Keswick | 25 | 100 | 15 | 115 |
| 017683 | Appleby | 32 | 100 | 22 | 122 |
| 015396 | Sedbergh | 35 | 100 | 25 | 125 |
| 016974 | Raughton Head | 36 | 100 | 26 | 126 |
| 017684 | Pooley Bridge | 41 | 100 | 31 | 131 |

- 5.72 Annex 2 provides further analysis of the effects of 100-number block allocations in the 11 five-digit area codes and the forecast impact on number availability and the potential need for number supply measures in the long-term.¹⁵⁷
- 5.73 Having taken CPs' assumptions into account, we do not anticipate that the limited nature of the roll out of 100-number blocks should prove to be unmanageable. If we proceed, we will monitor the impact of 100-number blocks on network switches. We would then consider with industry whether it is desirable and feasible for us to consult on allocating numbers in smaller blocks in other area codes and whether any additional numbers in the five-digit area codes should be made available for allocation in 100-number blocks.
- 5.74 We will conclude on whether 100-number blocks are to be made available in the five-digit area codes in a statement due for publication in July 2012. If we decide not to implement allocation of 100-number blocks in these areas, we would need to take alternative action to increase the number supply in five-digit area codes to meet ongoing demand. In this situation, we propose to take into account stakeholder views on options for increasing the supply of numbers in areas with five-digit codes received in response to the November 2010 consultation and to propose our preferred number supply measure for further consultation.

Details of how we propose the limited roll out of 100-number blocks to operate

- 5.75 We set out below how we propose to make 100-number blocks available if, following this consultation, we decide to proceed:
- 100-number blocks would be available for allocation in the 11 five-digit area codes following publication of our statement and the modified Numbering Plan. We expect this to be in July 2012;
 - area codes incorporating 100-number blocks will be indicated in Appendix A of the Numbering Plan;
 - we would set aside 100 blocks of 100 numbers (i.e. 10,000 numbers) for allocation in each five-digit area code;
 - the 100-number blocks would be made available from unallocated 1,000-number blocks;
 - we would open only one 1,000-number block for allocation as ten blocks of 100 numbers at a time;
 - once allocated in blocks of 100, the numbers would remain in that size unit;
 - numbers would also be available for allocation in blocks of 1,000 in these area codes;
 - the CP applying for numbers would need to justify the appropriate block size for allocation through predicted demand for numbers on the numbering application form; and

¹⁵⁷ See paragraphs A2.25 and A2.30.

- applications for 100-number blocks would be considered in accordance with our general requirements under our ‘first come first served’ system and any future changes to our allocation process that we may make subject to consultation.

Duties and legal tests

- 5.76 We looked at how a limited roll out of 100-number blocks would likely meet Ofcom’s duties and relevant legal tests in the Act in the September 2011 statement and consultation.¹⁵⁸ Having taken stakeholders’ responses to the September 2011 statement and consultation into account, we have decided to consult further in this document on a limited roll out of 100 blocks of 100-numbers in the 11 five-digit area codes.
- 5.77 In order to implement 100-number block allocations in the area codes proposed, we are proposing to modify the Numbering Plan¹⁵⁹ in order to:
- define a ‘100-Number Block Area’;
 - set out restrictions for the adoption of numbers allocated at the 100-number block level; and
 - set out which area codes have ‘100-Number Block Status’ in addition to ‘Conservation Area Status’ (i.e. which area codes have numbers available in blocks of 100 and 1,000).
- 5.78 We now consider our proposals for 100-number blocks with respect to Ofcom’s duties and the relevant legal tests in the Act.¹⁶⁰
- 5.79 We consider that our proposals for 100-number block allocations are consistent with our duties in carrying out our functions as set out in section 3 of the Act. In particular, we consider that the proposals further the interests of citizens in relation to communications matters and consumers in relevant markets by ensuring that best use is made of the limited geographic numbers remaining available for allocation in the 11 area codes proposed for the initial roll out of 100-number blocks and that the numbers are used effectively and efficiently. This proposal helps to ensure that geographic numbers remain available for allocation to CPs in the 11 area codes proposed, thus facilitating CPs in their provision of communications services to citizens and consumers, and promoting competition and choice for consumers.
- 5.80 The allocation of smaller number blocks in the proposed area codes also aims to further the interests of citizens and consumers by prolonging the availability of existing geographic numbers and thereby delaying the need for number supply measures (which can be disruptive and costly for consumers). By allocating smaller number blocks, we forecast that we could delay the need for number supply measures in the 11 five-digit area codes for a minimum of 13 years and for 21 years on average. Through the allocation of 100-number blocks, we expect that consumers’ demand for numbers in these area codes would be met in a way that has no adverse impact on consumers.

¹⁵⁸ See Section 5 paragraphs 5.202 to 5.210 of the September 2011 statement and consultation.

¹⁵⁹ See Annex 7.

¹⁶⁰ We set out the legal framework in Annex 6.

- 5.81 In reaching our proposals, we have also taken into account the Community obligations set out in section 4 of the Act, particularly the first requirement to promote competition in the provision of electronic communications networks, services and associated facilities through the ongoing availability of geographic numbers.
- 5.82 We are proposing a modification to the Numbering Plan in order to implement this measure. Section 60 of the Act provides for the modification of documents referred to in the Numbering Conditions (which includes the Numbering Plan). Under section 60(2) we may only modify the Numbering Plan if we are satisfied that the revision is:
- objectively justifiable in relation to the matter to which it relates;
 - not such as to discriminate unduly against particular persons or against a particular description of persons;
 - proportionate to what the modification is intended to achieve; and
 - in relation to what is intended to achieve, transparent.
- 5.83 We consider that the proposal for a limited roll out of 100-number blocks would meet these tests in the following manner:
- **objectively justifiable** - it is Ofcom's general duty in administering numbers to ensure their best use. We consider that the proposal is objectively justifiable as it would further best use of numbers by more closely aligning allocation block size to likely demand and thereby improving utilisation in the relevant area codes;
 - **non-discriminatory** – in that our preliminary conclusion is that allocation of a limited number of blocks of 100 numbers would not be discriminatory for the following reasons:
 - i) we would ensure that blocks of 1,000 numbers remained available for allocation alongside 100-number blocks so that the appropriate block size to meet a CP's justified demand would remain available for allocation. CPs would therefore not be unduly constrained by the introduction of 100-number blocks and by doing so, our proposal to make smaller blocks available would not discriminate against CPs with a justified demand for the allocation of a larger block of numbers; and
 - ii) a limited roll out of 100-number blocks would help CPs and Ofcom assess the impact on CPs of routing calls to numbers allocated in blocks of 100 numbers. We anticipate that CPs operating legacy networks would experience the greater impact. We have consulted on the proposals with those CPs and our preliminary view is that the terms of the limited roll out should not prove discriminatory. We will consider any further views CPs raise on this point as part of this consultation;
- proportionate** – in that it is the general objective of our review of geographic numbers to ensure that they are available to support competition in fixed-line

voice services across the UK for the foreseeable future. The policy principles¹⁶¹ that guide how we meet this objective are that:

- the numbers consumers want are available when they are needed;
- the numbers consumers currently use are not changed if this is avoidable;
- the meaning which numbers provide to consumers is protected;
- number allocation processes support competition and innovation; and
- consumers are not avoidably exposed to abuse.

The modifications to the Numbering Plan are proposed as we intend to make a limited supply of smaller number blocks available for allocation as a means of increasing the supply of geographic number blocks in the 11 five-digit area codes. This would contribute to the meeting of our objectives set out above by ensuring that geographic numbers are available in the relevant area codes when needed, that numbers currently used in those area codes are not changed as a solution to number demand, that location significance is protected and number blocks are available to support competition and innovation;

We have consulted CPs on the potential costs and timescales involved in the proposal.¹⁶² From CPs' responses, we do not consider the potential costs or implementation lead time to be a barrier to implementing our proposals for 100-number blocks and consider this to be an appropriate and proportionate approach to increasing the supply of number blocks in five-digit area codes; and

- **transparent** – in that the purpose of introducing 100-number blocks has been set out in this document and was the subject of earlier consultation in November 2010 and September 2011. In the proposed areas codes, we aim to make better use of the available numbers by more closely matching likely demand to allocation block size. By improving utilisation of numbers, we predict that we can delay the need for number supply measures.

5.84 In addition, we consider that we are fulfilling our general duty as to telephone number functions as set out in section 63 of the Act by:

- **securing the best use of appropriate numbers** – the numbers remaining available for allocation in the area codes proposed for roll out of 100-number blocks are particularly scarce due to the limited quantity of numbers created by their particular area code and local number structure. Action targeted to address this situation is required. We consider that this proposal would ensure best use of numbers in a manner that has no impact on citizens and consumers in those area codes; and
- **encouraging efficiency and innovation** – smaller number blocks can more efficiently meet the numbering requirements of some CPs in the proposed area codes.

5.85 We therefore consider that our proposal to make a limited number of 100-number blocks available for allocation in the 11 five-digit area codes meets the tests above. The draft notification of proposed modifications to the Numbering Plan to implement 100-number blocks is set out in Annex 7. Comments are invited by 2 May 2012.

¹⁶¹ See paragraphs 2.23 to 2.25 for more detail on our policy principles for managing geographic numbers.

¹⁶² See question 3 in the September 2011 statement and consultation and the summary of responses to that question in paragraphs 5.37 to 5.42 and paragraphs 5.55 to 5.58.

Question 3: Do you have any comments on:

i) our proposals to make 100 blocks of 100-numbers available for allocation in the 11 five-digit area codes;

ii) our submission of how the proposed modification to the Numbering Plan in relation to 100-number blocks meets the relevant legal tests in section 60(2) of the Act; or

iii) the proposed modification to the Numbering Plan in relation to 100-number blocks (set out in Annex 7)?

Section 6

Summary of proposals and next steps

Introduction

- 6.1 We have explained in the preceding sections of this document, the challenges that we face in ensuring the ongoing availability of new geographic numbers across the UK so that CPs can provide a choice of services to consumers. If we do nothing, we risk running out of new numbers to allocate to CPs in some area codes.
- 6.2 We have looked at a number of ways of meeting this challenge. In this section we summarise our proposals, explain the process for this consultation and the next steps. We also provide an indicative timeline for implementation should we proceed with our proposals.

Summary of our proposals for consultation

- 6.3 In summary, the purpose of this document is to:
- consult on 1 November 2012 as the date on which local dialling in the Bournemouth 01202 area code will be closed. From that date, local consumers would need to include the 01202 area code when dialling local calls from fixed-line phones;
 - consult on the final arrangements for introducing number charging in a pilot scheme covering 30 area codes with the fewest number blocks remaining available for allocation;
 - consult on the detailed arrangements to make a limited quantity of blocks of 100 numbers available to allocate to CPs in the 11 areas with five-digit area codes; and
 - consult on the legal instruments to give effect to these measures.

Proposal of 1 November 2012 as the date on which we will close local dialling in the Bournemouth 01202 area code

- 6.4 In the September 2011 statement and consultation we set out our decision to increase the supply of numbers in four-digit area codes that were forecast to run out of numbers by closing local dialling and then, if further numbers are needed in the future, introduce an overlay code.
- 6.5 Our forecast for number availability in the Bournemouth 01202 area code is that we will run out of our available stock of numbers to allocate to CPs later this year. We need to safeguard the future supply of landline numbers in the Bournemouth area to ensure that a lack of numbers does not prevent consumers and businesses from enjoying the widest choice of telecoms providers and services. We therefore need to consult on an appropriate date on which to close local dialling in the 01202 area code.
- 6.6 We consider that 1 November 2012 would be an appropriate date to propose for closing local dialling in the 01202 area code. It would not conflict with any major

national or local events; it would provide sufficient lead time to inform local citizens of the required change to dialling behaviour; and time for CPs to implement the change. It should also ensure that the new 01202 numbers are available for allocation before the existing supply runs out.

- 6.7 We are proposing modifications to the Numbering Plan to bring this proposal into effect.

Proposal to introduce number charging in a pilot scheme

- 6.8 Following refinement of our proposals to charge CPs for geographic numbers that they have been allocated in certain area codes, as set out in the November 2010 consultation and the September 2011 statement and consultation, we have reached the provisional conclusion that we will introduce charging in a pilot scheme covering the 30 area codes with the fewest number blocks remaining available for allocation.
- 6.9 We are now looking to receive comments on the following outstanding aspects of the pilot scheme:
- in order to implement the proposed pilot scheme, we have proposed amendments (by inserting new conditions) to GC17;
 - we are proposing to give the CP allocated the numbers a discount to its number charge bill for numbers used by another CP under the regulated arrangements for number portability or used by BT to provide WLR to another CP. We have set out how we intend to calculate and apply the discount; and
 - we have explained the details for implementing and administering the pilot scheme, including our proposal that the charging year is 1 April to 31 March, with the first charging year commencing on 1 April 2013.

Proposal for a limited number of smaller blocks to be made available for allocation in the 11 five-digit area codes

- 6.10 We have investigated the feasibility of addressing the shortage of number blocks available in five-digit area codes in a way that would not affect consumers in those areas. We propose to allocate numbers more efficiently in those area codes by making available 100 blocks of 100 numbers from our existing supplies to CPs which require new numbers in those area codes.
- 6.11 In order to implement this proposal, we are consulting on the details of the limited roll out of 100-number blocks, including the necessary modifications to the Numbering Plan.

Next steps

Concluding this consultation

- 6.12 This consultation lasts for six weeks and closes on 2 May 2012.
- 6.13 We consider that six weeks is an appropriate period for consultation for the following reasons:

- it is more than one month following the publication of the notification of the change, which is a requirement in the Act when we consult on amendments to General Conditions or the Numbering Plan;
- it is in accordance with our consultation guidelines.¹⁶³ The guidelines state that it is appropriate to consult for six weeks when the consultation, while containing important policy proposals, will be of interest to a limited number of stakeholders;
- proposals in relation to charging for numbers in a pilot scheme and making smaller number blocks available for allocation have been the subject of previous consultations in November 2010 and September 2011; and
- we decided in September 2011 on the policy for increasing the supply of numbers in four-digit area codes. We are now consulting on the date for implementing this policy in the Bournemouth 01202 area code.

6.14 Details on how to respond to this consultation are provided in Annexes 11 to 13.

6.15 Once this consultation has closed, we will take account of all submissions received and then reach our final conclusions.

6.16 We plan to publish two separate statements concluding on the different proposals put forward for consultation in this document.

Statement on the date for closing local dialling in the Bournemouth 01202 area code

6.17 The first statement will conclude on the date for closing local dialling in the Bournemouth 01202 area code. We plan to publish this statement in May 2012.

6.18 We need to provide clarity on the date for closing local dialling in the 01202 area code. We want communication of the requirement to dial the area code to commence at the earliest opportunity to ensure that consumers are aware and adequately prepared. CPs also need a confirmed date for closing local dialling in order to set their plans for its implementation.

6.19 The best way to deliver this clarity is to progress our considerations on the date for closing local dialling in the 01202 area code independently from the other matters under consultation in this document. This will expediate the publication of our decision on the date.

Statement on charging for geographic numbers and on allocating smaller number blocks

6.20 The second statement will conclude on the proposals (i) to implement number charging in a pilot scheme and (ii) to roll out 100-number blocks in the 11 five-digit area codes. We plan to publish this statement in July 2012.

Review of our administrative processes for allocating geographic numbers

6.21 In a separate exercise from this consultation, we are undertaking a review of our administrative processes for allocating geographic numbers. As part of that review, we intend to consult on the introduction of a time-limited reservation stage before

¹⁶³ *How will Ofcom consult? – Ofcom consultation guidelines November 2007*
<http://stakeholders.ofcom.org.uk/consultations/how-will-ofcom-consult>

allocation of numbers to CPs that have not demonstrated operational readiness to put the requested numbers into use. We also plan to consult on changes to the forms that CPs fill in when applying for the allocation of new numbers to elicit more information on which to base our allocation decisions. We intend to publish a consultation on these proposals in summer 2012.

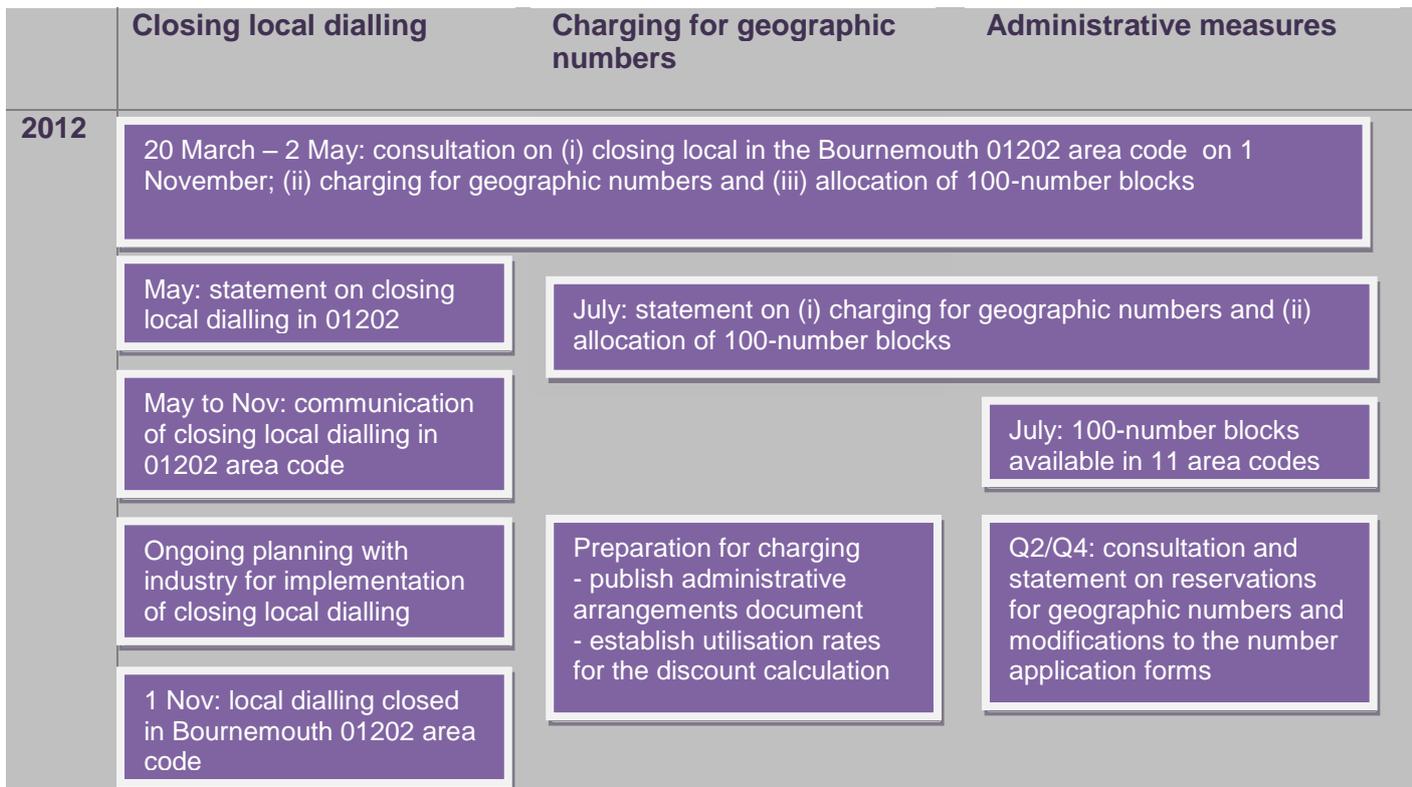
Closing local dialling in other area codes forecast to run out of numbers

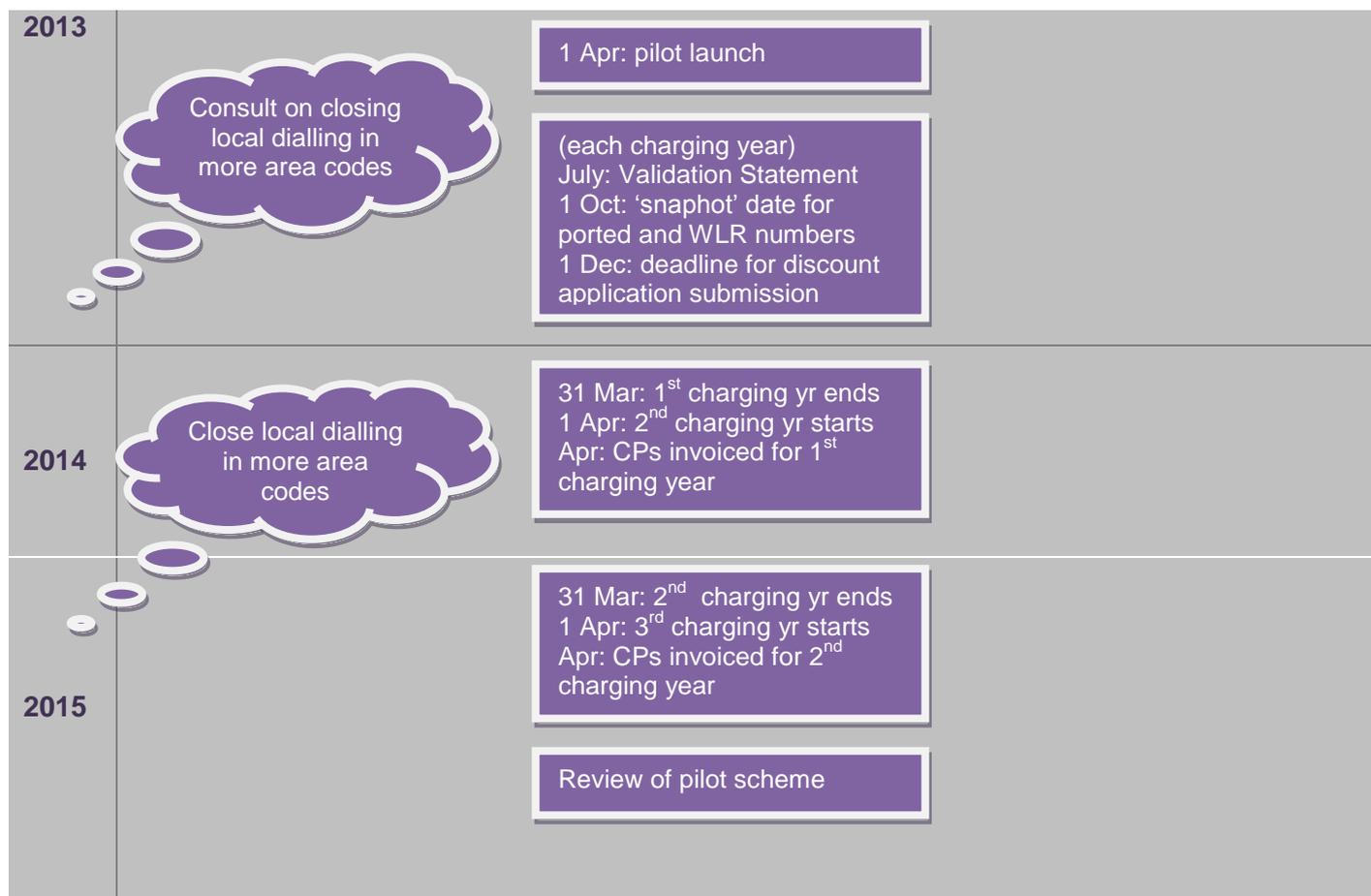
- 6.22 Our forecast shows that we will run out of number blocks to allocate to CPs in four area codes before the end of 2015. Action will therefore need to be taken within the next two years to increase the supply of numbers in those area codes, which are Aberdeen (01224), Bradford (01274), Brighton (01273) and Middlesbrough (01642).
- 6.23 We will work with the ‘Closing local dialling industry group’ to determine the appropriate timescales for closing local dialling in the area codes forecast to run out of numbers within the next few years and will consult accordingly.

Potential implementation of proposals: indicative timelines

- 6.24 Figure 6.1 below provides an indicative timeline for implementation of our proposals should they be adopted as put forward in this consultation. This is for illustrative purposes only; implementation is dependent on the outcome of the consultation process. If we do proceed, timelines are subject to change.

Figure 6.1 Indicative timeline for implementation of our proposals if adopted





Annex 1

Background on geographic numbers

Introduction

A1.1 In this section we set out the definition and characteristics of geographic numbers, explain how numbers are distributed from Ofcom to end-users, consider why geographic numbers are in high demand from consumers and CPs and the challenges faced in managing those numbers. We provide this background to assist consideration of the proposals set out for consultation.¹⁶⁴

Definition and characteristics of geographic numbers

Definition

A1.2 Geographic numbers are defined in the Numbering Plan as:

“a Telephone Number..(from a range of numbers in Part A of the Numbering Plan)...where part of its digit structure contains a Geographic Area Code...(consistent with Appendix A of the Numbering Plan)...that is Adopted or otherwise used for routing calls to the physical location of the Network Termination Point of the Subscriber to whom the Telephone Number has been assigned, or where the Network Termination Point does not relate to the Geographic Area Code but where the tariffing remains consistent with that Geographic Area Code”.

A1.3 The definition of geographic numbers in the Numbering Plan reflects two key elements – location significance and tariff transparency. These elements are examined below.

Location significance

A1.4 The UK is divided into 610 geographic area codes, each covering a different part of the UK (plus three codes that cover Jersey, Guernsey and the Isle of Man). The Numbering Plan sets out each area code and the name of the associated geographic area.¹⁶⁵ We also provide a ‘telephone area code checker’ on our website to help consumers identify area code location.¹⁶⁶

A1.5 We know that many consumers value the location significance inherent in geographic numbers.¹⁶⁷ The numbers can be seen as ‘location brands’ that have meaning and worth for the end-user of the number and for those calling the numbers. Despite changes in technology that promote the use of numbers in non-location specific ways, such as mobile telephones and VoIP technology that allows for nomadic use of geographic numbers, our consumer research has found that the

¹⁶⁴ More detailed background information on geographic numbers is provided in Section 3 of the November 2010 consultation.

¹⁶⁵ Appendix A of the Numbering Plan.

¹⁶⁶ Area code checker [Ofcom | Telephone area codes](#).

¹⁶⁷ See the 2010 and 2011 consumer research and our analysis of its findings in Section 4 and Annexes 3 and 4 of the September 2011 statement and consultation.

proportion of consumers who think that geographic significance is important has increased from 52 per cent of those surveyed in 2005 to 64 per cent in 2010.

Tariff transparency

- A1.6 Consumers also value geographic numbers because they generate trust through transparent tariff arrangements.¹⁶⁸ Consumers have a general idea of the price of calling a number starting with '01' and '02' from their landline and from their mobile phones.
- A1.7 Commonly the price of the call varies according to time of day and calls to geographic numbers often form part of inclusive call package allowances. Overall, the price of calling geographic numbers is generally low (and understood by consumers to be low) relative to the price of calling numbers in other ranges.

'Out of area' use

- A1.8 Geographic numbers may be used to provide services that terminate outside of the area associated with the code. There are a number of reasons why end-users might want to use a geographic number with an area code different from their actual location, and these reasons generally relate to the value that the end-user places on the number and its location and tariff characteristics. For instance, a number might be requested from a different area code to give the impression of localness despite the called party being based elsewhere.
- A1.9 There are two provisos associated with the use of geographic numbers 'out of area'. First, the customer must have specified a telephone number with that area code¹⁶⁹ and second, the cost of calling the number must remain as associated with a call to a number with that area code.¹⁷⁰
- A1.10 These restrictions support our guiding principles for managing geographic numbers; specifically that we "will not hasten the erosion of location significance but will recognise (and not stifle) the effect of network and service evolution on that significance" and that "tariff transparency should be retained so that a caller pays what he/she expects to pay for a call to a geographic number".¹⁷¹ The restrictions on 'out of area' use recognise the importance of maintaining the trust that consumers currently have in geographic numbers.

Services that may be provided on geographic numbers

- A1.11 The definition of 'Geographic Number' in the Numbering Plan does not specify or restrict the type of service for which these numbers may be used. Most commonly, they provide the primary means of fixed-line telephone access for residential consumers. Many businesses also use geographic numbers as their contact points, choosing the location and tariff significance provided over non-geographic number

¹⁶⁸ Consumer research carried out for Ofcom in 2005 found a fairly clear correlation between estimated price and likelihood to call a number, with residential consumers saying they were less likely to call numbers that they estimate to be more expensive. There also appeared to be some relationship between claimed recognition and likelihood to call. We found that consumers were more likely to respond to an advertisement for something they were interested in if the advert featured a geographic number than any other number type.

¹⁶⁹ Paragraph B3.1.2 of the Numbering Plan sets out this restriction associated with 'out of area' use of geographic numbers.

¹⁷⁰ Definition of 'Geographic Number' in the Numbering Plan.

¹⁷¹ See paragraph 2.24..

alternatives. Essentially any type of service may be provided on a geographic number as long as its use is in accordance with the definition of 'Geographic Number' in the Numbering Plan and any relevant restrictions for the adoption of telephone numbers.

Structure of geographic numbers

A1.12 Geographic numbers are generally 11 dialled digits in length¹⁷² and comprise of:

- the leading digit '0' which denotes national dialling and does not form part of the area code;
- the area code (which is the same for all numbers within a specific area); and
- the local number.

The area code and the local number together form the unique 'Subscriber Number'.

A1.13 The UK telephone numbering plan has been through a number of modifications over the past decades to provide tariff and service significance. This has resulted in geographic numbers being clearly recognised by the leading digits '01' and '02'. There have also been a number of changes to increase the amount of numbers associated with certain geographic areas with the highest demand. This has resulted in area codes of different digit lengths ('0' plus two to five digits), with the associated local number being between eight and five digits long.¹⁷³

A1.14 The shorter the area code, the longer the local number; and the more numbers available in that area code. For technical reasons and to prevent misdials, not all numbers in an area code are available for general use (further explained in paragraph A1.24 below).

A1.15 A two-digit area code and eight-digit local number, such as the London '020' area code, provides 79 million numbers for that area. There are five area codes in the '2 + 8' digit format created in the year 2000. All these codes have a sufficient supply of numbers available to meet demand beyond the foreseeable future and are categorised as being a 'Standard Area'¹⁷⁴ in the Numbering Plan, with numbers allocated in blocks of 10,000.

A1.16 A three-digit area code and seven-digit local number, such as the Leeds '0113' area code, provides 7.9 million numbers for that area. This allows for 790 allocations of 10,000-number blocks to CPs and these area codes have a sufficient supply of numbers to meet demand for the foreseeable future. The area codes of several big cities are in the '3 + 7' digit format (or '2 + 8' digit format as mentioned above). These area codes are also categorised as being 'Standard Areas' in the Numbering Plan, with numbers allocated in blocks of 10,000.

A1.17 A four-digit area code and six-digit local number, such as the Cambridge '01223' area code, provides only 790,000 numbers for that area. Originally allocated in blocks of 10,000 numbers, all four-digit area codes (except for Jersey 01534 and

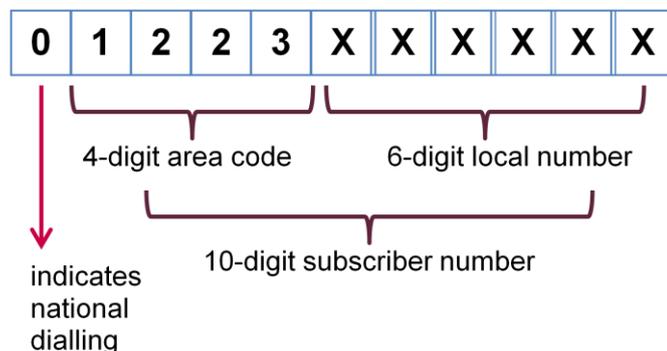
¹⁷² The vast majority of geographic numbers are '0' plus ten-digits in length; however, there remain some '0' plus nine-digit numbers in certain area codes.

¹⁷³ Annex 1 of the November 2010 consultation provides more detail on how the geographic number plan has evolved over the past two decades.

¹⁷⁴ See paragraph A1.50 for more information on 'Standard Area'.

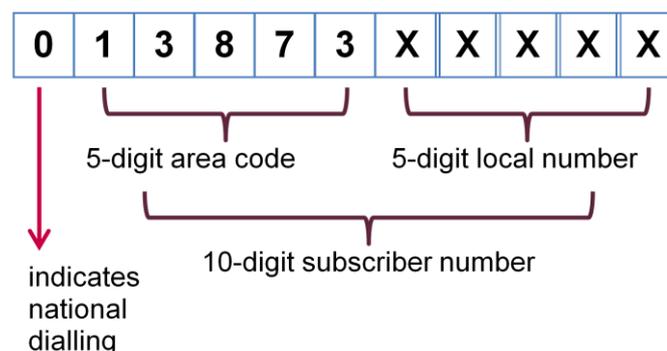
Guernsey 01481) are now 'Conservation Areas'¹⁷⁵ with remaining numbers allocated to CPs in blocks of 1,000. Most UK area codes are in the '4 + 6' digit format. A few four-digit area codes have five-digit local numbers.

Figure A1.1 Structure of four-digit area code and six-digit local number



A1.18 A five-digit area code and five-digit local number, such as the '013873' area code for Langholm, provides only 79,000 numbers for that area. There are 11 five-digit area codes covering areas with low populations (fewer than 21,000 people).

Figure A1.2 Structure of five-digit area code and five-digit local number



A1.19 There is also one area code (Brampton 01697(X)) that has numbers with both four- and five-digit area codes.

A1.20 In addition, there are 14 four-digit area codes whose area code and local number structure provides specific location (and for some CPs, charging) information in a manner similar to five-digit area codes. These are referred to as Extended Linked Numbering Scheme ('ELNS') area codes.

A1.21 ELNS area codes provide location significance through the four-digit area code and the first digit of the local number. For example, in the 01229 area code, local numbers starting with the digits 2, 4, 5, 6 and 8 have the location significance of Barrow-in-Furness, while local numbers starting with the digits 3, 7, 9 have the location significance of Millom. The Numbering Plan sets out the ELNS area codes and the location significance denoted by the first digit of the local number. In ELNS area codes, the available numbers are divided between two or three separate locations. This reduces the quantity of numbers available for allocation in each specific location.

¹⁷⁵ See paragraphs A1.46 to A1.49 on 'Conservation Areas'.

- A1.22 Given the relative abundance of numbers available for allocation in area codes with a '2 + 8' and '3 + 7' digit structure, our focus in this review of managing geographic numbers is on area codes with a '4 + 6' and '5 + 5' digit structure.

Local dialling

- A1.23 The UK has what is known as an 'open dialling plan' to facilitate consumer dialling of local telephone numbers. This means that calls between geographic numbers with the same area code can be dialled without the code (i.e. by dialling the local number only). The Numbering Plan makes it an obligation for CPs to provide the local dialling facility to their customers.¹⁷⁶
- A1.24 The ability to dial numbers locally without the area code means that local numbers beginning with '0' and '1' cannot be used. This is because numbers starting with those digits have certain other significance for networks. A leading '0' signifies a national call (or international call if '00' is dialled), whereas the digit '1' denotes a network or short code, such as the '112' emergency service number or '118XXX' directory enquiry numbers. We have also protected from use local numbers beginning with '99' to prevent potential misdials to the '999' emergency services number.

How geographic numbers are distributed from Ofcom to end-users

- A1.25 Ofcom administers the UK's telephone numbers and allocates blocks of contiguous numbers to CPs. All CPs are eligible to apply for the allocation of numbers from Ofcom. A CP is "...a person who provides an Electronic Communications Network or an Electronic Communications Service".¹⁷⁷
- A1.26 Once a number block has been allocated to a CP, it must 'adopt' the numbers in order for them to be useable. Adoption essentially means getting the allocated numbers built onto CPs' networks so that calls can be routed and delivered to the correct end-user. CPs are expected to adopt numbers within six months of allocation.¹⁷⁸
- A1.27 The time taken from request to completion of the data management amendment process ('DMA') associated with adopting numbers (i.e. the opening of another CP's numbers on a CP's network so that their customers can call the numbers) varies across networks and can depend on the nature of the request (e.g. whether the CP has numbers already open on that network). The process generally takes from between one week and 60 working days according to information gathered from CPs.¹⁷⁹
- A1.28 Once the process of number adoption has been concluded, the CP can give out the numbers to their consumer and businesses customers.¹⁸⁰ There may be a number of different service provider layers between the CP holding the number block allocation and the end-user. For example, the numbers might be assigned to either

¹⁷⁶ Paragraph B3.1.3 of the Numbering Plan sets out that the local dialling facility must be provided to end-users by CPs who adopt geographic numbers.

¹⁷⁷ Definition of a 'Communications Provider' in GC17.

¹⁷⁸ Condition 17.14 of GC17 states that Ofcom may withdraw allocations of numbers from CPs if not adopted within six months of allocation.

¹⁷⁹ Based on CPs' responses to our information requests between August and October 2010.

¹⁸⁰ In accordance with requirements in connection with the transfer of use of allocated telephone numbers set out in Condition 17.9 of GC17.

i) the end-user directly – this is the most common practice; or ii) another CP (i.e. sub-allocation of the numbers), who will then assign them to service providers or end-users; or iii) a service provider, who may package the number with a service for provision to an end-user.

A1.29 Regardless of the number of parties involved, it is the CP allocated the numbers by Ofcom that is responsible for taking all reasonably practicable steps to ensure that the numbers are used in accordance with regulation (including conditions of use in the Numbering Plan and obligations under GC17).¹⁸¹

Demand for geographic numbers

A1.30 Allocation of geographic numbers to CPs increases year on year. Some reasons for this are offered below.

A1.31 Growth in demand can occur locally, in districts where the residential population and/or the number and size of businesses are increasing, driving local demand for fixed-line numbers.

A1.32 Another more general explanation for continuing demand despite the falling number of fixed phone lines might be increasing use by businesses and other organisations of direct dial-in ('DDI'). This facility allows every phone in an organisation to have an individual number that can be dialled directly from the public network without need of the organisation's switchboard. An organisation that uses DDI usually has more numbers than phone lines, because not all of its extensions are likely to be used simultaneously. Furthermore, many CPs are making increasing use of VoIP technology to provide DDI, and this allows an organisation to use its data access lines to support voice services, avoiding the need for any dedicated phone access lines at all.

A1.33 Increasing use of applications that enable service providers to associate (and later disassociate) quickly and at low cost one or more numbers with one phone apparatus may also help explain end-users' growing use of geographic numbers. Callers can reach that phone by dialling any of the numbers that service providers assign to it. (Callers may in addition reach the same phone by dialling the number originally assigned by the provider of the phone's access line). This capability is used currently, for example, in classified advertisements that publish a temporary phone number unique to each advertiser.

A1.34 In another example, businesses might advertise a series of unique telephone numbers in different business directories, allowing the directory provider's CP to detect each call dialled to the advertised number, route it to the advertiser's phone, and insert a short recorded voice message (a 'call whisper') audible only to the advertiser advising that the caller saw the number in its directory. This helps businesses to monitor the effectiveness of advertisements and is an example of an increasing number of 'value-added' applications being provided by CPs and service providers to businesses on geographic numbers.¹⁸² In the past, such features would have been more traditionally associated with non-geographic numbers, such as chargeable 08 numbers. However businesses, recognising consumers' preference for calling geographic numbers and that lower call prices can entice more calls,

¹⁸¹ Condition 17.8 of GC17.

¹⁸² Other forms of call statistics can be provided, as well as features such as time of day/day of week/area based call routing, voicemail messaging and interactive voice response (IVR) auto call attendants.

have created a growing demand for these features to be provided on geographic numbers.

- A1.35 A final example of how demand for geographic numbers exceeds the number of fixed-lines might relate to a business operating from a central location and serving customers in parts of the country that cover a number of different area codes. The business may want to give the appearance of a local presence and can achieve this by using several geographic numbers, one local to each of the area codes of its customers, with all calls routed to its central location.
- A1.36 CPs are in the business of providing communications services to their customers and to a large extent their requirement for numbers is guided by consumer preference and demand. Consumers tend to recognise, value and trust geographic numbers above other number types. Appreciation of consumer attitudes inevitably leads to CPs' desire for geographic numbers to offer to their prospective customers, and a stock of geographic numbers is required to compete with other CPs and to show availability of numbers when tendering for business. Also, as consumers value the location significance inherent in the area code, CPs often seek allocations of numbers in a wide range of area codes so that they have a supply of local numbers to offer customers in different areas.

Challenges for managing geographic numbers

- A1.37 The UK numbering plan provides two billion geographic telephone numbers, allowing for at least 32 geographic numbers for every person in the UK.¹⁸³ Indeed, we have already allocated over 420 million geographic numbers across the UK, representing almost seven numbers per person.
- A1.38 Generally speaking, shortages can occur because the theoretically-available two billion geographic numbers have to be fragmented so that they can:
- provide the location significance that consumers continue to value highly;
 - meet technical routing constraints in legacy networks, in which calls are routed according to a minimum block size of 1,000 numbers; and
 - support competition. New entrants and the expansion of existing CPs' services lead to a corresponding demand for numbers. This demand grows year on year. We have allocated geographic numbers to over 300 CPs and we allocate roughly 7,000 geographic number blocks per year.
- A1.39 The nature of this fragmentation can be illustrated by using the example of a consumer wanting a Bournemouth telephone number from a particular CP:
- the two billion numbers with geographic meaning are reduced to one million numbers with the Bournemouth 01202 area code;
 - this reduces to 790,000 numbers, as local numbers beginning with 01202 0 and 01202 1 cannot be used for technical reasons while local dialling is allowed, and numbers beginning with 01202 99 are protected to avoid '999' misdials; and

¹⁸³ It is worth noting that numbers are not just associated with premises or consumers. They are also used to identify routing paths and may, for instance, result in multiple numbers being used by one end-user.

- numbers are available from blocks of 1,000 allocated to the consumer's chosen CP.

A1.40 Nevertheless, without closing local dialling, there are 790,000 numbers to cover the Bournemouth area code's population of approximately 410,000 people in 210,000 residential and businesses premises.¹⁸⁴ Competition in the provision of communications services in the Bournemouth area is high, with 86 CPs allocated 01202 number blocks. This demand from CPs has left us with only 16 spare blocks of 1,000 numbers to allocate.¹⁸⁵ Based on current demand trends, we forecast that unless we take action to change this situation we risk running out of blocks of 01202 numbers to allocate to CPs later this year.¹⁸⁶

A1.41 The 'Bournemouth illustration' above demonstrates that the division of numbers into area codes and blocks for allocation to CPs leads to low utilisation rates, resulting in scarcity of numbers to meet ongoing CP demand. To varying degrees, the story is similar across all four- and five-digit area codes in the UK. In many area codes, the ratio of available phone numbers to local population exceeds that of the area covered by the 01202 area code, yet scarcity occurs due to the level of CP demand.

What are we doing currently to meet those challenges?

A1.42 The challenge for Ofcom and CPs, therefore, is how to ensure that geographic numbers are available to support competition in fixed-line voice services for the foreseeable future within the constraints of technical feasibility, the regulatory framework and in line with our policy principles.¹⁸⁷

Improving utilisation rates

A1.43 What appears to be an ample supply of numbers to meet demand becomes fragmented to provide meaning, reflect technical routing capabilities and support competition. Within these constraints, CPs' utilisation rates are key to the effective management of geographic numbers and for offsetting the need for number supply measures.

A1.44 We have allocated significantly more numbers to CPs than both residential and business consumers actually use. In 2006 we estimated that the average utilisation rate of allocated numbers across all CPs was 15 per cent.¹⁸⁸ Looking at our forecast of future demand, we calculated that even a modest improvement in utilisation could have a significant effect on the ability of number supply to meet demand.

A1.45 We describe below the actions we have taken over the last five years to improve utilisation. As part of the current review, in 2010 we obtained information from 43 CPs on utilisation of allocated numbers (either provided on a sub-set of area codes

¹⁸⁴ Source: the 2001 Census and Ordnance Survey data. The number of business and residential premises was estimated by i) mapping BT exchanges onto UK postcodes and ii) by using the number of premises per postcode reported in the Ordnance Survey.

¹⁸⁵ Data correct as at 21 January 2012.

¹⁸⁶ This assessment is based on data as at 21 January 2012.

¹⁸⁷ See paragraph 2.23.

¹⁸⁸ This figure was calculated using the total amount of geographic numbers in BT's directory enquiries database (known as the OSIS database) in each area code and uplifting it by 20 per cent to cover DDI numbers not included in the database. We then compared this with the total of numbers allocated in each area code to provide average utilisation rates per area code and across all geographic area codes.

or as average figures). We found that on average 23 per cent of geographic numbers allocated to smaller CPs were utilised, whereas an average of 53 per cent of geographic numbers allocated to the larger fixed network CPs were in use. Although the methods for calculating the rates were different in 2006 and 2010, our findings suggest that the average utilisation rate has improved.

Allocation of smaller number blocks: Conservation Areas and Standard Areas

- A1.46 Originally we allocated all geographic numbers in blocks of 10,000. In 2002, we reduced the block size to 1,000 numbers in nine area codes that we forecast would run out of available blocks to allocate to CPs within two years. This decision introduced the concept of 'Conservation Areas'.
- A1.47 Conservation Areas work by reducing the size of blocks allocated from 10,000 to 1,000 numbers. This can more closely align the quantity of numbers allocated to the CP's estimated level of demand (i.e. the number of customers that the CP forecasts achieving in an area) and therefore significantly increase utilisation of allocated numbers. This has no effect on competition or on CPs' ability to secure sufficient numbers, as multiple 1,000-number blocks can be allocated if justified demand is demonstrated.
- A1.48 In 2006 we redefined 'Conservation Area' in the Numbering Plan to mean "a geographic area that Ofcom believes has a realistic expectation of number exhaustion within the next five years". Between 2005 and 2008 we introduced conservation measures in a further 246 area codes. In 2010 we made all remaining '0' plus four-digit area codes (except for Jersey 01534 and Guernsey 01481) into Conservation Areas with numbers allocated in blocks of 1,000. There are now a total of 590 Conservation Areas in the UK.¹⁸⁹
- A1.49 These actions have been successful in prolonging number availability. On average, we have seen an approximate 85 per cent decrease in the numbers that we allocate (i.e. in the 'allocation rate') in an area code following reduction of block size. The introduction of conservation measures in nine area codes in 2002, when a critically low supply of remaining blocks led to a forecast of less than two years of number availability, has meant that number blocks are still available for allocation in those area codes, although the stocks of numbers have now dwindled considerably.
- A1.50 The remaining 17 area codes cover larger cities and have two- or three-digit area codes. These are still characterised as 'Standard Areas'¹⁹⁰ since we have sufficient numbers remaining without the need for conservation measures at this time. Numbers continue to be allocated in blocks of 10,000, with the condition that each 1,000 number block should be used sequentially to facilitate number withdrawal should conservation measures be imposed in the future.¹⁹¹

Audit and unused number block withdrawal

- A1.51 We undertake periodic audits of CPs' use of allocated numbers, generally focussing on the area codes experiencing the highest level of number block shortage. The goal of this audit is to identify any allocated but unused 1,000-number blocks (either

¹⁸⁹ The Numbering Plan shows 591 area codes with conservation status. This figure includes the Isle of Man (area code 01624), which is not within the scope of this review.

¹⁹⁰ A 'Standard Area' is defined in the Numbering Plan as "a geographic area that Ofcom believes does not have a realistic risk of exhaustion within the next five years".

¹⁹¹ Paragraph B3.1.7 of the Numbering Plan.

as numbers allocated in 1,000-number blocks or 1,000-number units from blocks allocated at the 10,000-number level pre-conservation). Once identified, we seek CPs' voluntary consent for us to withdraw the unused numbers and return them to the pool of blocks available for allocation. To be withdrawn, the 1,000-number unit must comprise of contiguous numbers ending in the digits '000' to '999' and every number must be free. These requirements derive from the network capacity limitations which constrain the minimum size of blocks that we can allocate.

- A1.52 Audit and unused number block withdrawal have contributed significantly to the ongoing availability of number blocks and have improved utilisation rates due to the withdrawal of blocks with zero utilisation. This has extended the availability of numbers in audited areas considerably. We recognise, however, that the more times we audit a particular area code, the less likely we are to get a significant level of block returns. This is because the most fruitful supply of numbers being returned comes from historical allocations made at the 10,000-number block level.

Using a rule-based number allocation process

- A1.53 We use a rule-based system for allocation of numbers to CPs, requiring them to answer a set of questions in a specified application form that focuses on establishing whether the applicant is a CP and whether it has an operational requirement for the numbers requested. The first time a CP applies for numbers from us, it is required to describe the nature of its network and its arrangements for interconnecting with other CPs so that calls can be carried across different networks.
- A1.54 To apply for number blocks (which are allocated on a 'first-come first-served' basis from those shown as available on our website), the applicant is required to set out the details of the intended use of the numbers, including timescales for implementation, forecast utilisation and service proposals. The CP is also required to provide utilisation figures for any allocations it may already have in the same area code and these figures need to justify the allocation of additional numbers.

Annex 2

Data analysis and forecasting

Introduction

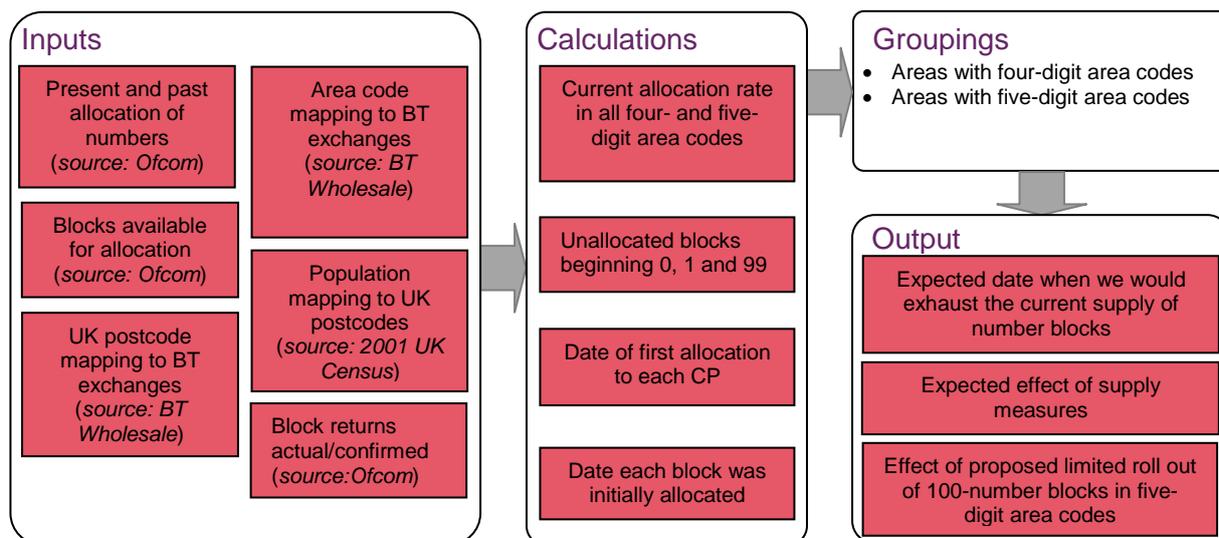
- A2.1 In the preceding sections of this document, we have referred to our analysis of number block availability and use, and our forecast on the likelihood of us running out of number blocks to allocate to CPs in some area codes. This analysis forms the foundation of our review of geographic numbers and has provided the context for the proposals set out in this document.
- A2.2 In particular, our data analysis and forecasting:
- allows us to understand the current trends for geographic number demand and the parameters that may affect them;
 - provides an estimate of number block availability in each area code and the timescales for implementing our number supply measures before existing numbers are forecast to run out; and
 - provides a tool for monitoring the effectiveness of our measures in managing demand.
- A2.3 In this annex we explain briefly the forecasting model that we use (including the information considered and the basis for our analysis) and the number demand trends identified. We set out our revised forecasts for number block availability in four- and five-digit area codes, the effect that we anticipate our proposed number supply measures would have on future availability and examine the main reasons for the differences between the current forecast and the forecast presented in the September 2011 statement and consultation.

Model overview

- A2.4 Figure A2.1 sets out the inputs we used in our analysis for the forecasts on number availability, the calculations we performed and the forecast results.¹⁹² In producing our results, we considered four- and five-digit area codes separately, taking into account the different solutions for dealing with number block scarcity that we plan to implement in these area codes.
- A2.5 Our updated forecast is based on number block availability and demand trends as at 21 January 2012.

¹⁹² See Annex 2 of the November Consultation for a more detailed description of the forecast model. The same model has been used to generate the forecasts presented in the November 2010 consultation and the September 2011 statement and consultation.

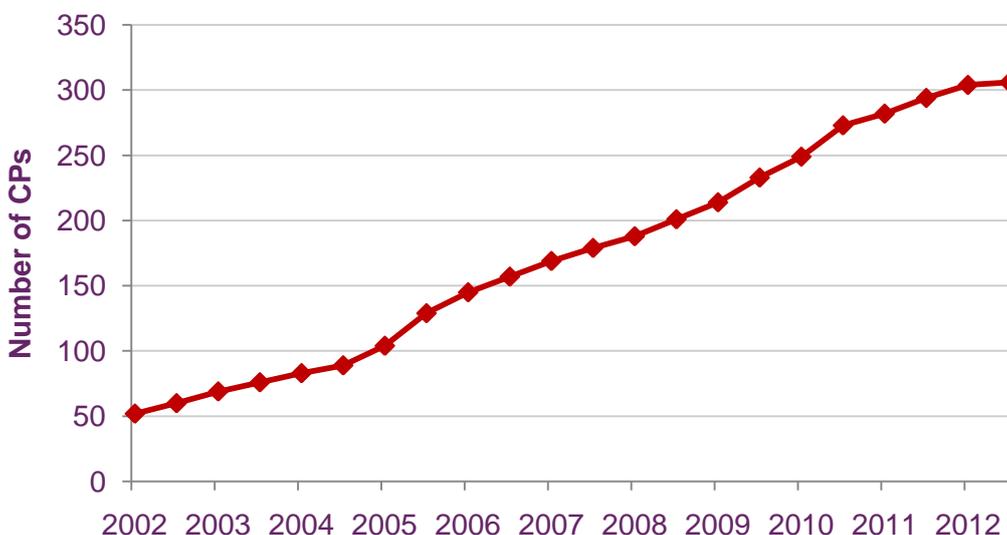
Figure A2.1 Overview of our forecast analysis model



Number demand trends¹⁹³ and assumptions used in the forecast

A2.6 The demand for geographic numbers is primarily driven by new entrants in the communications market. Our data (Figure A2.2) shows that new CPs enter the market at a steady rate. There are currently more than 300 CPs with geographic number allocations.

Figure A2.2 Number of CPs with geographic number allocations



Assumptions considered in our analysis

A2.7 In preparing our forecast model we made the following assumptions based on our analysis of number demand trends:

¹⁹³ Further number allocation trend analysis was carried out in paragraphs A2.28 to A2.35 of the November 2010 consultation, the results of which are still valid. In this consultation we present only the evidence on the rate at which new CPs enter the market, which is the main parameter driving the demand for numbers.

- new CPs will continue to enter the market and seek allocations of geographic numbers; and
- the demand for numbers in each area code is stable. Even if there are external parameters that affect the demand rate, we have assumed that their aggregated effect is negligible. Therefore we have extrapolated the number allocation trends based on a linear approximation model (i.e. we have assumed that the same number of blocks will be allocated year on year).

Effect of proposed measures to improve utilisation of allocated numbers on our forecast

A2.8 We do not estimate the potential effect that our proposals to introduce number charging and to strengthen our number allocation processes might have on allocation rates or on our forecast for number availability.

Forecast results

A2.9 In this section we present our estimates on number availability if no action is taken to address scarcity. We then describe how our proposed number supply measures are expected to extend number availability in the area codes where applied.

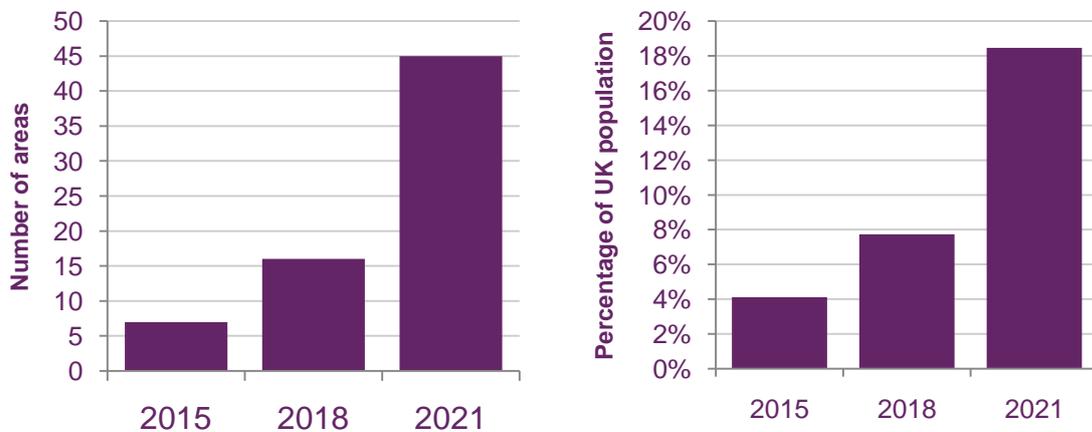
Four-digit area codes

Availability of the existing supply of numbers

A2.10 By extrapolating the number allocation trends we forecast that our current supply of number blocks to allocate to CPs in 45 four-digit area codes may exhaust by the end of 2021 if no action is taken to ensure number availability (see Figure A2.3). We estimate that area codes affected by the end of 2021 would cover approximately 18 per cent of the UK population.

A2.11 We forecast that seven four-digit area codes may run out of numbers before the end of 2015, affecting approximately four per cent of the UK population.

Figure A2.3 Area codes and percentage of UK population affected by the end of 2021



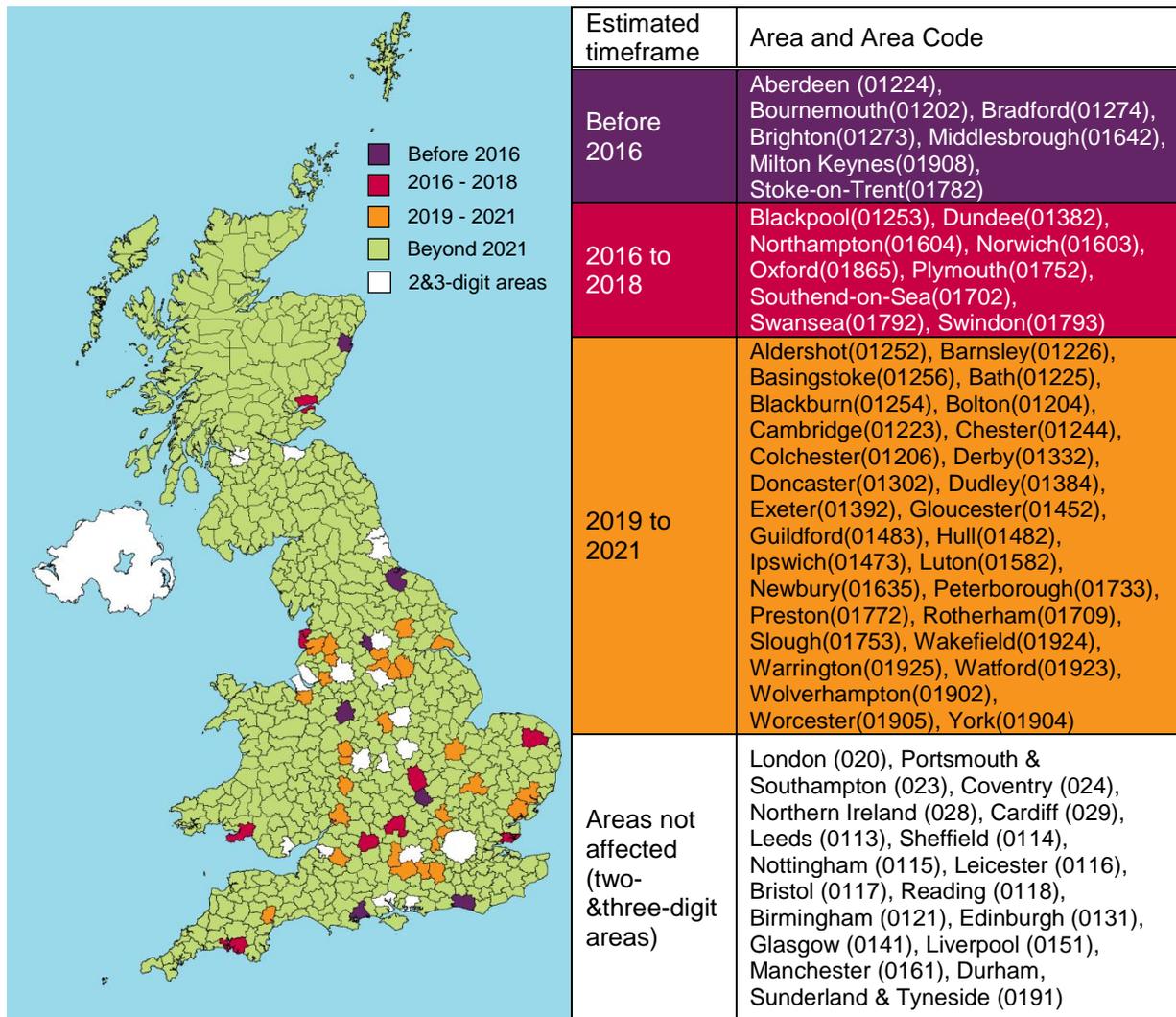
A2.12 Figure A2.4 provides geographic context to our forecast of area codes to run out of numbers by the end of 2021 and lists alphabetically the 45 four-digit area codes that are expected to require additional geographic numbers.

A2.13 We have divided the area codes into three groups based on the estimated exhaustion date. We expect that:

- seven areas will need additional supply of numbers before 2016;
- a further nine area codes will need more numbers between 2016 and 2018; and
- 29 area codes will need an increase in numbers between 2019 and 2021.

A2.14 Figure A2.4 also shows the 17 areas with two- or three-digit area codes in the Numbering Plan. These area codes provide a significantly larger supply of numbers and are therefore unlikely to face number shortages. We have excluded these area codes from our forecast analysis. Five-digit area codes are discussed separately below.

Figure A2.4 Area codes forecast to run out of their current supply of numbers by the end of 2021



Effect of supply measures in four-digit area codes

A2.15 Our approach for increasing the supply of numbers in a four-digit area code is to:

- i) close local dialling; and
- ii) if more numbers are needed in the future, introduce an overlay code.

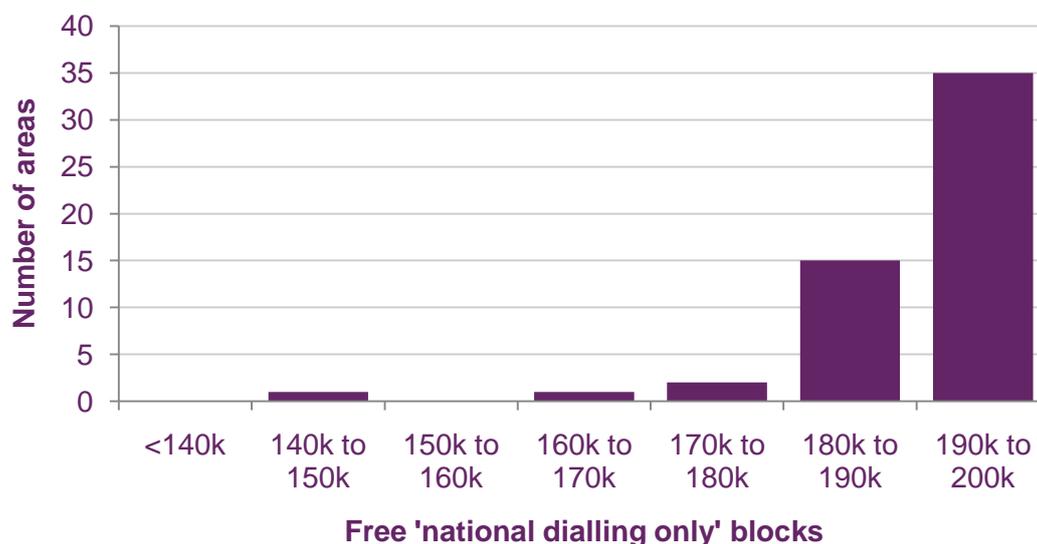
A2.16 Below we demonstrate how these measures are likely to extend the availability of numbers in four-digit area codes across the UK.

Closing local dialling

A2.17 Closing local dialling allows the allocation of local numbers beginning with the digits ‘0’, ‘1’ and ‘99’. In 428 of the 579 four-digit area codes, closing local dialling would make between 200,00 and 210,000 numbers available. There are, however, 54 area codes where closing local dialling would create fewer than 200,000 additional numbers. This is because some of these numbers have already been allocated to CPs in some area codes to be used as ‘national dialling only’ numbers, for example

to terminate calls to non-geographic numbers. We have deducted these existing allocations when estimating the effect of closing local dialling in each four-digit area code. Figure A2.5 provides the distribution of potentially available numbers in four-digit area codes with 200 or fewer blocks available if local dialling was closed.¹⁹⁴

Figure A2.5 Availability of ‘national dialling only’ number blocks in four-digit area codes (excluding area codes with more than 200 ‘national dialling only’ blocks available)



A2.18 The number of free ‘national dialling only’ blocks in an area code and the allocation rate for that area code determine how long number availability is forecast to be extended if local dialling is closed. We estimate that closing local dialling would extend number availability in four-digit area codes for between six and 25 years. The average across all four-digit area codes would be 15 years.

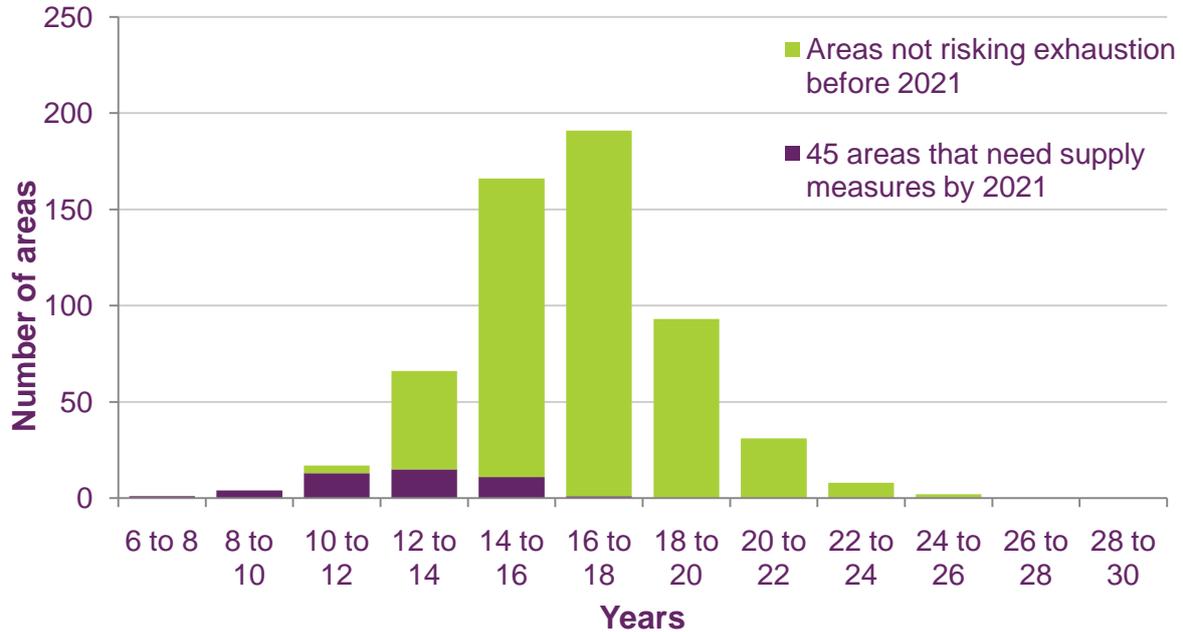
A2.19 Closing local dialling in the 45 four-digit area codes forecast to run out of numbers by the end of 2021 is expected to extend number supplies for between six and 16 years. The average forecast for these 45 area codes is 12 years.

A2.20 There are five area codes where closing local dialling is forecast to extend number availability by less than ten years. This is because some of the ‘national dialling only’ number blocks are already allocated and/or the high demand for numbers from these area codes. These area codes, which are all forecast to require closing local dialling before the end of 2021, are Aberdeen (01224), Bournemouth (01202), Exeter (01392), Milton Keynes (01908) and Rotherham (01709).

A2.21 Figure A2.6 shows the distribution of the additional number availability gained by closing local dialling, distinguishing between the 45 area codes expected to face supply shortage first (in purple) and the remaining four-digit area codes (in green).

¹⁹⁴ This graph is for illustrative purposes. We only intend to close local dialling in area codes where there is a demand for additional number blocks.

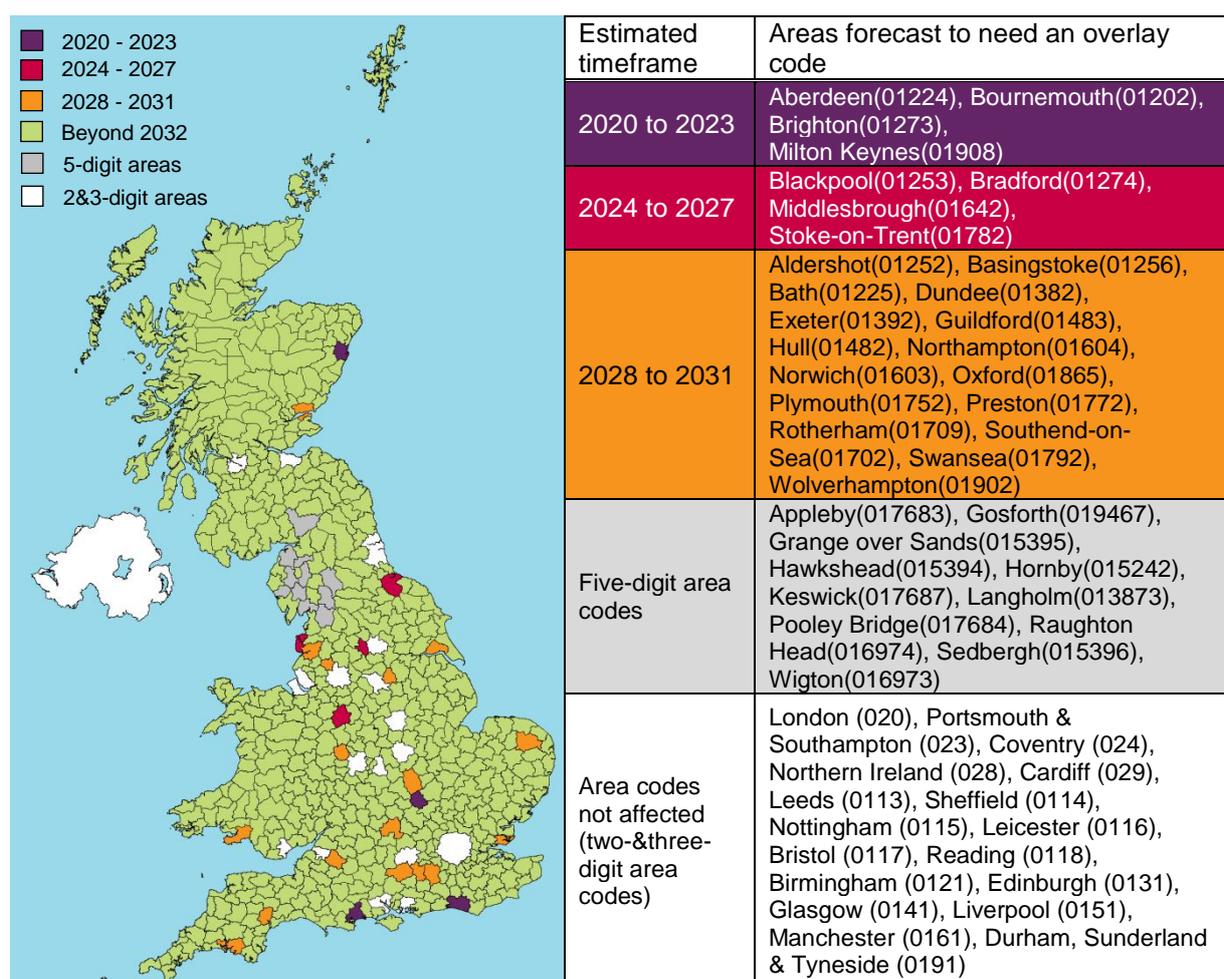
Figure A2.6 Increase in number block availability resulting from closing local dialling in four-digit area codes



Overlay codes

- A2.22 The introduction of an overlay code doubles the supply of numbers in an area by introducing a second area code. This translates as up to an additional 1,000 blocks of 1,000 numbers being available for allocation in four-digit area codes with closed local dialling. Current allocation trends suggest that such a supply of numbers would last for more than 40 years in area codes with high demand, and for over 100 years in area codes where demand is lower. On average, a four-digit overlay code would provide sufficient numbers to meet demand for 70 years.
- A2.23 Figure A2.7 depicts the area codes that we forecast may require an overlay code between 2020 and 2031. Four areas are expected to need the introduction of an overlay code alongside the current area code between 2020 and 2023. These area codes are (with the existing area code shown in brackets) Aberdeen (01224), Bournemouth (01202), Brighton (01273) and Milton Keynes (01908). In total, 32 areas are likely to require an overlay code before the end of 2031.
- A2.24 Area codes that do not face number shortage (i.e. areas with two- and three-digit area codes) and those where different measures for increasing the supply of number blocks are proposed (i.e. five-digit area codes) are excluded from the analysis presented in Figure A2.7.

Figure A2.7 Areas forecast to need an overlay code by 2031

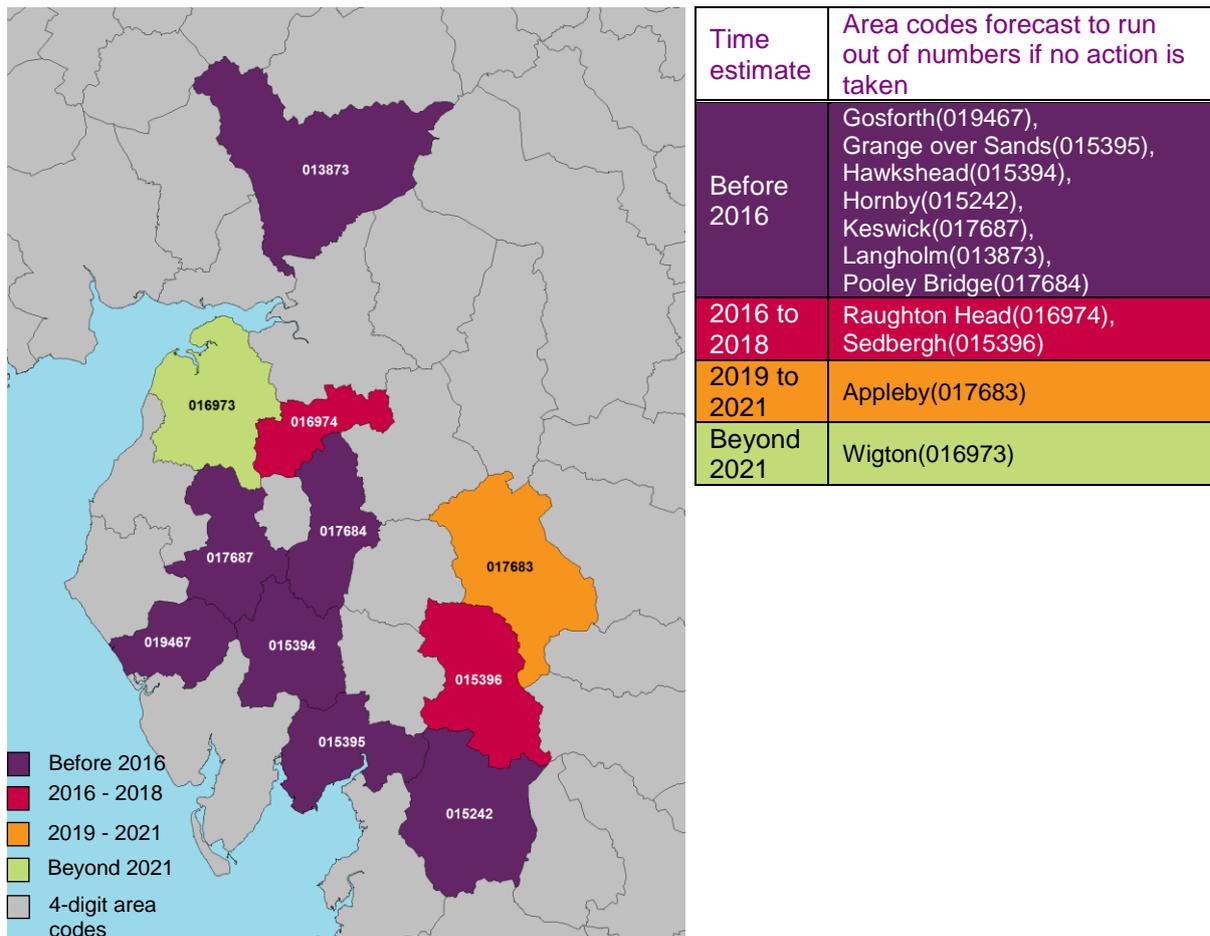


Five-digit area codes

Availability of the existing supply of numbers

- A2.25 Figure A2.8 shows the 11 five-digit area codes along with our estimate of when the current supply of numbers would exhaust, if no action is taken.
- A2.26 The limited supply of numbers in these area codes means that, if nothing changes, our supply of available number blocks are likely to run out in seven out of the 11 five-digit area codes before 2016, while the first three area codes (Gosforth (019467), Hawkshead (015394) and Langholm (013873) are forecast to run out of numbers during 2012.

Figure A2.8 Forecast number block availability in five-digit area codes



Effect of proposed 100-number block allocations in five digit area codes

- A2.27 We are consulting on making a limited supply of smaller number blocks available for allocation in each of the 11 five-digit area codes. We propose to divide ten blocks of 1,000 numbers into 100 blocks of 100 numbers in each area code, thus increasing the supply of available number blocks for allocation.¹⁹⁵
- A2.28 We estimate that the provision of 100 blocks of 100 numbers would extend number availability in the five-digit area codes for a minimum of 13 years, and for 21 years on average (see Figure A2.9).
- A2.29 Langholm (013873), the first of the five-digit area codes forecast to run out of 1,000-number blocks, is forecast to have sufficient numbers to meet demand for 13 years if 100 blocks of 100-numbers are made available.

¹⁹⁵ See Section 5.

Figure A2.9 Effect of the introduction of 100 blocks of 100 numbers in the 11 five-digit area codes



A2.30 In Figure A2.9, the calculation is based on the assumption that the demand for numbers would not be affected by the allocation of smaller blocks of numbers (i.e. that the number block allocation rate remains consistent).

Differences between the current and previous forecasts of number block availability

A2.31 We presented our forecast for number block availability in the November 2010 consultation. At that time, we predicted that 59 four-digit area codes and 11 five-digit area codes would run out of number blocks for us to allocate within the next ten years.

A2.32 We updated this forecast for the September 2011 statement and consultation. In that forecast we predicted that, without action, 25 four-digit area codes and 11 five-digit area codes would run out of numbers to allocate by 2021. We explained that some of the differences between those two forecasts for four-digit area codes were due to the impact of the number audit conducted between April and July 2011 (see below), withdrawal of the effect of 'critical measures'¹⁹⁶ from the forecast and an adjustment to the effect of conservation measures on the allocation rate.¹⁹⁷

A2.33 When conducting our forecast of number block availability for the September 2011 statement and consultation, we incorporated in the analysis the number blocks that we expected to reclaim as a result of the 2011 audit. The effect was to extend our number availability forecast in four-digit area codes by eight years on average when compared to the November 2010 forecast, and by a considerably longer period in some area codes. As a result, we forecast that 25 four-digit area codes would run

¹⁹⁶ 'Critical measures' are temporary measures designed to ensure best use of numbers in area codes where supply is at a critically low level (i.e. measures used when an area code has fewer than 20 blocks remaining available for allocation) until number supply measures are put in place. The effect of critical measures was to extend the availability of numbers by approximately one to two years in four-digit area codes.

¹⁹⁷ This took into account a small difference between the estimated and actual effect of conservation measures in the 336 four-digit area codes given Conservation Area status in April 2010.

out of numbers to allocate to CPs by 2021 compared with 59 four-digit area codes in the November 2010 forecast.

- A2.34 However, at present we have not withdrawn all the number blocks anticipated as a result of the 2011 audit, and the total of actual blocks returned to date is 42,000 (i.e. 42 million numbers). We consider it prudent to provide the forecast of number block availability in this document based on actual number block availability adjusted only for number blocks whose return has been confirmed and are in the process of being withdrawn from the CP.
- A2.35 We now forecast that 45 four-digit area codes will run out of numbers by the end of 2021 compared with 25 four-digit area codes in the September 2011 forecast. This difference is mainly a result of the adjustment for actual rather than expected number block returns and does not represent an increase in demand for numbers.

Additional parameters that could affect the forecast

- A2.36 Forecasting the availability of numbers in the future is a difficult task. While we maintain that our forecast model provides a good estimate, we acknowledge that it is sensitive to a number of parameters, including:
- i) market and industry changes that may alter the allocation rate significantly. For example, the introduction of new services demanding large number allocations may reduce number availability sooner than expected; and
 - ii) our model cannot estimate the effect of potential policy changes, such as the effect of charging for numbers or changes to our number allocation processes.

Annex 3

Approach to number charges when the CP using the number is different from the range holder

Introduction

A3.1 We discussed in Section 4 that there are cases where, for regulatory reasons, a CP provides a service to a customer using a number which has been allocated by Ofcom to a different CP.¹⁹⁸ We have identified the following regulatory arrangements where this situation arises:

- the customer's number has been ported from one CP to another CP - a ported number remains allocated to the CP (known as the range holder) which was first allocated the number by Ofcom, even though another CP (the recipient provider) is using the number to provide a service to the customer; and
- the exchange line is supplied using Wholesale Line Rental (WLR) services – WLR lines are usually attached to a number allocated to BT (the range holder), but it is the CP that provides a service to the customer (the retail CP) that uses the number.

A3.2 In the November 2010 consultation we considered that the range holder should pay a number charge to Ofcom, including in circumstances where the particular number is used by another CP under a regulated arrangement. Administratively, this is a simpler solution (with lower administrative costs for CPs and Ofcom) than determining which CP is using each individual number in a number block and recovering a number charge from them.¹⁹⁹

A3.3 We considered that where the range holder is not able to benefit from using some of its allocated numbers in a block, it may be appropriate for the range holder to recover reasonable costs associated with number charging from the CP using the number. This reflects the fact that the range holder would effectively be paying for a resource from which another CP is benefitting (and preventing the range holder from using the resource).

A3.4 In Annex 4 of the November 2010 consultation we assessed three options for 'cost recovery' for the range holder as follows:

Option 1: The range holder recovers a cost per number from the CP serving the customer equal to the charge per number set by Ofcom.

Option 2: The range holder recovers a cost per number from the CP serving the customer based on average utilisation of numbers by the range holder across all number blocks allocated to it in all pilot scheme area codes. For example, if Ofcom

¹⁹⁸ This does not apply to the sub-allocation of numbers. Although such sub-allocations would also result in the CP with the customer relationship being different from the range holder, sub-allocations are commercially agreed and not a regulatory requirement.

¹⁹⁹ Under General Condition 18 CPs are obliged to provide Ofcom with information on ported numbers and the recipient provider if requested to do so.

sets the number charge at 10p per number per year for a block of 1,000-numbers, and the range holder is using 50 per cent of the numbers to provide a service to a customer, then the cost recovery per number per year would be $10p/50 \text{ per cent} = 20p$.

Option 3: The range holder recovers a cost per number from the CP serving the customer based on the range holder's utilisation of the blocks it has been allocated in each pilot scheme area code.

A3.5 In response to the November 2010 consultation stakeholders generally accepted that the range holder should be able to recover costs from the CP using the number. However, some stakeholders commented that this approach would be potentially complicated and costly to implement because systems development would be required to calculate the cost recovery amount and bill for it.

A3.6 In light of these comments we consulted on two further options in the September 2011 statement and consultation aimed at reducing implementation costs:

Option 4: Reciprocal approach - CPs recover costs from each other on a reciprocal basis based on BT's average utilisation of numbers in blocks in pilot scheme area codes.

Option 5: Discount approach - The range holder obtains a reduction in number charges for ported and external WLR numbers. To obtain a reduction, the range holder provides Ofcom with a list of numbers which are ported/used for WLR, and a discount is applied to the bill for these numbers. The discount would not apply to WLR lines provided by Openreach to other businesses within the BT-Group (e.g. lines used by BT Retail or Plusnet). This is because in the case of such lines BT retains the retail customer relationship and is able to recover the cost of number charges from the end customer. For the same reason, the discount would not apply to numbers ported between CPs which are part of the same group of companies.

Responses to the September 2011 statement and consultation

Stakeholders' comments

A3.7 BT, C&WW and SSE noted that a large driver of implementation costs under Options 1 to 4 would be the need for inter-CP billing activity for WLR and ported numbers. These CPs, along with Virgin Media, considered that implementation costs would be reduced under Option 5. C&WW, Magrathea and [S<] supported Option 5 for ported numbers but suggested an alternative approach for WLR (discussed below in paragraphs A3.16 to A3.18 and A3.35 to A3.37).

A3.8 SSE noted a further advantage of Option 5 was that it resulted in charges being applied only to those who have been allocated numbers and who can respond to the charges and control their use of numbers accordingly.

A3.9 In addition to identifying higher implementation costs, BT noted a number of further problems with Options 1 to 4:

- Option 1 does not recover the real cost of the numbers, since the discount reflects the per number charge by Ofcom rather than the amount the range holder would recover from a customer using the number.

- Under Options 2 and 3 the cost each CP is able to recover depends on its number utilisation in a block. This means that two CPs porting in and porting out the same amount of numbers from each other would likely recover different amounts of costs because of different utilisation rates. BT thought that the incentives would be incorrect because the CP with higher utilisation would recover a lower amount of costs.
 - Options 2 and 3 make the range holder's utilisation rate available to third parties and Option 4 makes BT's utilisation available to third parties. BT considered that this is inappropriate as each CP's utilisation rate is commercially confidential.
 - Option 3 adds complexity (relative to Option 2) for little additional benefit.
- A3.10 [S<] noted that Option 4 relies on BT's utilisation rate which has been a source of industry dispute and disagreement in the past.
- A3.11 While BT supported Option 5 in principle, it noted that the CP using ported or WLR numbers would not face a charge for these numbers and that CPs would be able to 'freeload' when their business relies heavily on ported and WLR numbers. BT suggested that we revise Option 5 so that CPs using ported and WLR numbers are charged directly by Ofcom for the numbers they are using. BT suggested that this would be more equitable while avoiding the need for inter-CP billing which results in higher implementation costs.
- A3.12 BT noted that in the September 2011 statement and consultation we had dismissed this approach because it would create an additional administrative burden for Ofcom. It thought we could reduce the administrative burden by using the information provided by CPs to claim the discount (i.e. not charging the CP using ported/WLR numbers unless the range holder claims a discount). It thought it likely that Ofcom would already be billing CPs using ported/WLR numbers for their own number allocations, so this would simply be an additional charge rather than a separate bill.
- A3.13 BT noted that a further way to reduce the administrative burden would be to apply a materiality threshold, for example, only billing a CP for use of ported and WLR numbers if a certain minimum amount of these numbers are used or a minimum level of charge is reached.
- A3.14 BT thought that Ofcom directly charging CPs for the use of ported and WLR numbers was the most practical way forward. However, it suggested a further alternative approach whereby the CP using the ported or WLR number would *not* be charged, but instead Ofcom would give the range holder a 'double discount'. So, for example, if a range holder's utilisation rate was 50 per cent, instead of receiving a 20p discount to the number charge bill per ported/WLR number per year, it would receive 40p. BT thought that the CP using the number and the range holder would therefore receive a similar benefit, i.e. the benefit to the CP using the number is 20p from using a number at no cost, and the benefit to the range holder is also 20p.
- A3.15 C&WW noted that Option 5 favours CPs using ported numbers (over CPs using their own number allocations), but it considered that this was something that Ofcom

- should favour because using ported numbers reduces the need for new number allocations.²⁰⁰
- A3.16 C&WW was less convinced about Option 5 for WLR lines. It thought that this could incentivise one type of access over another, because a CP using WLR faces no number charge, but one using Local Loop Unbundling ('LLU') does face a charge.²⁰¹ Further, it noted that in the case of WLR, a billing arrangement already exists between the range holder and the CP using the number, so the cost of the number charge could be added to the WLR charge. However, for the sake of consistency between the treatment of ported and WLR numbers, it accepted that Option 5 is an appropriate way forward.
- A3.17 Similarly, Magrathea would prefer Option 5 for ported numbers but Option 1 for WLR. It noted that the number charge cost is directly associated with providing a copper line and should therefore be included in the pricing that makes up the WLR charge.
- A3.18 [S<] also thought that a number charge of 10p per number per year could be added to the regulated price for WLR in pilot scheme area codes.
- A3.19 SSE welcomed the fact that Option 5 has a single discount rate for ported and WLR numbers across all CPs in pilot scheme area codes. However, it questioned whether the discount should be the 'per number' charge applied by Ofcom, rather than the adjusted rate using the range holder's utilisation to reflect a 'per customer' cost as proposed.
- A3.20 C&WW considered that BT should only be given a discount for WLR lines used by non BT-Group companies (i.e. BT would not get a discount for WLR lines used by a company it owns).
- A3.21 Sky was the only stakeholder that responded to the consultation that did not prefer Option 5 for ported numbers. Its preference was Option 1 which it considered to be the simplest option to implement across industry for all CPs (specifically across porting agreements). It thought that Option 2 may give large CP range holders the opportunity to realise unearned income and may remove the incentive for efficiency of number allocation within the area codes where charging is in place.²⁰² It requested clarification on whether the ability to recover number charges where a number is ported would require an amendment to GC18.
- A3.22 As regards Option 5, Virgin Media noted that it might be difficult for the range holder to work out who a particular number had been ported to for the purpose of obtaining a discount. It considered that this might mean it is more cost effective for a CP required to pay number charges to forgo the discount in some circumstances. It noted that this would result in a net loss for CPs and correspondingly for consumers.
- A3.23 'Name Withheld 1' thought that Ofcom might consider operating a 'clearing house' for ported numbers, so that instead of the range holder keeping track of every ported number and the recipient provider, Ofcom would keep records of which numbers had been ported and to whom. The respondent noted that we would then

²⁰⁰ C&WW questioned why Ofcom would require information on ported numbers disaggregated by recipient CP, rather than simply as a bulk percentage. We discuss this point in paragraph A4.46.

²⁰¹ Assuming that the LLU provider does not use a ported in number.

²⁰² This is because the cost the range holder can recover from the recipient increases when block utilisation is lower.

be able to instigate cost recovery from the recipient on behalf of the range holder. The respondent thought that this arrangement would be useful for other purposes, for example, when an end user wishes to port a number, but the porting path is convoluted due to subsequent ports.

Ofcom's response

A3.24 The above shows that most CPs were in favour of Option 5, i.e. the discount approach. However, a number of CPs suggested modifications to this option which we discuss below.

Ofcom directly charging the CP using ported/WLR numbers

A3.25 BT suggested that it would be inequitable for the CP using a ported or WLR numbers not to be charged for that number. It suggested that Ofcom therefore ought to charge these CPs directly for such numbers.

A3.26 We considered applying a number charge to CPs using ported/WLR numbers in the September 2011 statement and consultation.²⁰³ We decided against this approach because:

- it would not significantly help to achieve our objective of encouraging efficient use of numbers because the CP using a ported/WLR number does not manage the allocated block which contains the number; and
- it would create an administrative burden for Ofcom (which would ultimately be passed on to CPs through Ofcom's annual Network and Services Charges on CPs pursuant to section 38 of the Act).

A3.27 In the September 2011 statement and consultation, we recognised that not charging CPs who use ported numbers and WLR would benefit these CPs. However, we considered for our proposed pilot scheme of 30 area codes that this would be unlikely to have a material impact on competition (for example, the number charge costs are small in relation to the total wholesale costs per line (see paragraph 4.111)). We also noted that we would review the approach as part of the review of the pilot scheme.

A3.28 BT suggested that Ofcom could reduce the administrative burden by directly charging the CP using the number only if the range holder submits a request for a discount for that number. This could also reduce the impact on CPs because those with few ported numbers might decide that the applicable discount was not large enough to warrant the administrative effort in claiming it. However, this would be unlikely to improve efficient use of numbers significantly (because, as noted above, the CP using the number does not manage the block which contains the number) and it would result in uncertainty for the CP using the number because it would not always know in advance whether the range holder was going to apply for a discount and whether it would be charged.

A3.29 BT suggested that we could apply a materiality threshold (e.g. only charge the recipient/retail provider if it uses more than 20,000 numbers in total in pilot scheme area codes) to reduce the administrative burden. This would reduce the number of CPs we need to bill for using ported and WLR numbers, but this would still involve an administrative process to work out which CPs had more than, say, 20,000

²⁰³ See paragraphs A5.20 to A5.22 of the September 2011 statement and consultation.

ported/WLR numbers. Essentially, this would involve the same collation exercise as set out above and may therefore not reduce the administrative burden significantly.

- A3.30 Consequently, we maintain our view that directly charging the CP using ported/WLR numbers would create an administrative burden for Ofcom and CPs. We would need to request information from all CPs who have ported numbers in pilot scheme area codes (and from BT for WLR use in these area codes), analyse each return to identify which CPs are using the numbers, and then collate the numbers used by each provider across all the range holders' returns. For WLR we would likely have to charge a significant number of additional CPs. Current indications are that we would charge 166 CPs for number allocations in the pilot scheme area codes and it is likely that significantly more CPs use WLR in these area codes than have number allocations (we do not have information on the number of CPs using WLR in the pilot scheme area codes, however, around [redacted] CPs²⁰⁴ use WLR across the country).

Providing a 'double discount' for the range holder

- A3.31 In order to reduce the administrative burden on Ofcom, BT suggested providing the range holder with an additional discount instead of charging the CP which uses ported/WLR numbers. BT thought that this would provide the range holder and the CP using the number with a similar level of 'benefit'.
- A3.32 We agree that this approach would reduce the administrative burden compared to Ofcom charging the CP directly and it would help to address theoretical concerns that CPs using ported numbers and WLR would be at an advantage relative to CPs using numbers from their own allocations. However, we consider that any possible advantage from using ported or WLR numbers is not likely to have a material impact on competition between CPs for the pilot scheme covering 30 area codes. As noted above, number charge costs are small in relation to wholesale costs (and even smaller when factoring in retail costs) so any possible impact on competition between CPs is likely to be small.
- A3.33 We are also concerned that doubling the discount could reduce the overall bill for number blocks to the extent that it undermines our objective in encouraging efficient number use (i.e. if the bill becomes relatively trivial and fails to encourage CPs to use numbers more efficiently).
- A3.34 Therefore, we do not intend to adopt BT's double discount approach in the pilot scheme. However, we may reconsider this as part of the review of the pilot scheme.

Using a different approach for WLR

- A3.35 Magrathea, [redacted] and C&WW all questioned whether Option 5 was the most appropriate approach for WLR numbers. Instead of giving BT a discount for numbers used by external WLR CPs, they thought that the number charge cost could be recovered by BT as part of the WLR charge. C&WW noted that a billing arrangement already exists between BT and WLR CP.
- A3.36 Such an approach might be considered more equitable because CPs using external WLR would face number charge costs in the same way as CPs who have been allocated numbers by Ofcom. However, it would not significantly help to achieve our objective in encouraging efficient number use because it is BT, not the retail

²⁰⁴ [redacted].

provider, which manages the number block (from which the WLR numbers along with numbers used by BT itself are assigned). In addition, it could increase the billing costs for BT because it does not currently have the functionality to bill other CPs for numbers. Because the number charges would only be levied for WLR lines in pilot scheme area codes, BT would need a means to separate each WLR CPs' lines into those that are in pilot scheme area codes and those that are not, and apply the number charges accordingly.

- A3.37 On balance, we think that the additional complexity and administrative cost of recovering number charge costs through WLR pricing is not warranted for the pilot scheme.

Other points

- A3.38 Sky preferred Option 1 (where the range holder recovers a cost per number from the CP serving the customer equal to the charge per number set by Ofcom) which it considered to be the simplest option to implement across industry for all CPs.
- A3.39 We consider that Option 1 would be significantly more complex and costly for CPs to implement than Option 5. This is because under Option 1, each range holder would need to recover the number charge costs from the CP using the numbers. In response to the November 2010 consultation CPs noted that this inter-CP billing arrangement would be costly to implement. In order to minimise the implementation costs to CPs, we do not propose to adopt this option.
- A3.40 In addition, as discussed in the September 2011 statement and consultation, under Option 1 the range holder will not recover the actual costs associated with providing numbers unless it achieves 100 per cent utilisation of numbers in the block.²⁰⁵ As the primary rationale of 'onward' charging would be cost recovery for the range holder, we note that Option 2 or Option 3 would better achieve this aim given that utilisation will rarely be close to 100 per cent.
- A3.41 Sky questioned whether the proposed approach would require an amendment to GC18. Given that the approach under Option 5 does not affect porting arrangements between CPs, we do not believe that any amendment to GC18 is required. In order to implement the proposals, we have proposed changes to GC17 (see Annex 8).
- A3.42 SSE questioned whether it was possible under Option 5 for the discount to reflect the per number charge set by Ofcom, rather than the per customer cost (i.e. adjusted for the utilisation of the range holder) as proposed.
- A3.43 We discussed in the September 2011 statement and consultation why we do not propose to adopt this approach.²⁰⁶ We considered that the discount should reflect the actual cost of using the number which depends on the number utilisation rate of the range holder. This reflects the fact that a CP can only recover the number charge costs from numbers actually used by customers. Therefore, the discount should reflect the cost that the range holder would recover through its retail pricing if its own customer were using the number.
- A3.44 C&WW considered that (under Option 5) BT should only be given a discount for WLR lines used by non BT-Group companies. We agree that BT should not get a

²⁰⁵ See paragraph A5.51 of the September 2011 statement and consultation.

²⁰⁶ See paragraphs A5.18 to A5.19 of the September 2011 statement and consultation.

discount for WLR lines used by companies it owns. The purpose of providing a discount for external WLR lines used by an 'external' CP is to avoid penalising BT (as the range holder) where it cannot recover number charges from the end customer using the number. Where a BT-Group customer is using the number, BT is able to recoup the number charge costs from the customer. The same consideration applies to numbers ported between companies which are part of the same group, i.e. they are ultimately owned by the same company.

- A3.45 Virgin Media noted that it might be difficult to work out the identity of the CP to whom a number had been ported, and the discount under Option 5 might not be worth the administrative effort in submitting the necessary information to Ofcom. Under our proposal CPs using ported numbers are not required to apply for a discount. We recognise that CPs will need to trade-off the costs and benefits of gathering and/or processing information on ported numbers. We consider that it is appropriate for CPs themselves to determine the proportionality of applying for a discount.
- A3.46 'Name Withheld 1' suggested that Ofcom operate a 'clearing house' for ported numbers, noting that we would then be able to instigate cost recovery from recipient providers on behalf of the range holder. We discussed above why we do not propose to charge CPs for ported/WLR numbers. Moreover, if the fixed telecoms industry has a need for a clearing house for ported numbers, it is not clear that Ofcom would be best placed to provide it.

How to calculate the utilisation rate for the discount approach

- A3.47 We discussed above why we favour Option 5, i.e. the discount approach for ported and WLR numbers.
- A3.48 In the September 2011 statement and consultation we proposed that the utilisation rate used to calculate the discount for all CPs is BT's average utilisation rate across all its allocated number blocks in pilot scheme area codes. We considered that using a single utilisation rate had the merit of simplicity and lower implementation costs.
- A3.49 In response to the September 2011 statement and consultation, BT disagreed with using its own utilisation rate to calculate the discount, noting that:
- it viewed its utilisation rate as commercially confidential; and
 - calculating the utilisation rate is costly for BT, and it should not have to bear this cost alone.
- A3.50 In addition, [redacted] noted that using BT's utilisation rate has been problematic in the past, resulting in commercial disagreements and disputes between CPs.
- A3.51 In light of this, we have considered alternative approaches. For the pilot scheme our aim is to adopt a solution which will minimise the implementation costs for CPs. Therefore;
- (i) we would apply a single utilisation rate for all area codes included in the pilot scheme, i.e. CPs would not need to calculate utilisation by area code; and
 - (ii) the utilisation rate would be calculated once (on a given date) and applied for the pilot scheme.

A3.52 We have considered the case for ported numbers and WLR separately.

Utilisation rate to calculate the discount for ported numbers

A3.53 In principle we could calculate a bespoke discount for each CP based on its own average utilisation rate for pilot scheme area codes. The advantage of this approach is that the discount for each CP would directly reflect its cost per number used. However, there are a number of disadvantages which in our view outweigh the advantages:

- CPs may be incentivised to provide a low utilisation rate to obtain a bigger discount; and
- it would result in a significant administrative burden on CPs as a whole (because every CP claiming a discount would need to calculate its own utilisation rate) and Ofcom (because we would need to calculate a bespoke discount based on the utilisation rate for each CP and check the accuracy of the information provided from a potentially large number of CPs).

A3.54 Therefore, we propose to use a single industry average utilisation rate to calculate the discount.²⁰⁷ In principle, we could calculate a weighted average industry utilisation rate using information provided from all CPs with ported numbers in pilot scheme area codes. However, we consider that this would be costly and impractical because all CPs would need to provide us with a utilisation rate which we would need to process.

A3.55 Instead we are proposing to calculate a weighted average industry utilisation rate using information from a sample of CPs. We are proposing to request information on number block utilisation from the top three CPs by number allocations in the pilot scheme area codes (this would currently include BT, Virgin Media and C&WW). These CPs represent around 70 per cent of number allocations in the 30 pilot scheme area codes. This approach should minimise the costs to industry overall and also to Ofcom because only a few CPs would need to provide utilisation information. Each of the three CPs' utilisation rate would be weighted according to its number allocations in the pilot scheme area codes to calculate the average.

A3.56 The disadvantage of this approach is that the larger CPs included in the sample may not be representative of the utilisation rates across the whole industry. In particular, larger CPs are likely to have higher than average utilisation rates, and thus smaller CPs would receive a lower discount than if the discount was based on their own utilisation rates. However, this approach reduces implementation costs for these smaller CPs. In addition, we believe that smaller CPs are unlikely to have a significant amount of ported numbers, so the potential disadvantage to these CPs would likely be minimal.

A3.57 Given that the sample of CPs above cover around 70 per cent of number allocations in the pilot scheme area codes it is unlikely that the weighted average industry utilisation rate based on this sample would be significantly different from that for the industry as a whole.

A3.58 We recognise that the sample of CPs required to provide information on their utilisation rates will incur some additional costs relative to the rest of the industry.

²⁰⁷ In the September 2011 statement and consultation, we noted that we would consider this approach if we were unable to use BT's average utilisation rate (see Annex 5, footnote 289).

We have sought to keep these costs to a minimum by proposing that the utilisation rate is only calculated once at the beginning of the pilot scheme.

Utilisation rate to calculate the discount for WLR

- A3.59 Unlike porting arrangements, which may affect all CPs, BT is the only range holder providing WLR to other CPs. Therefore, we consider it appropriate that the discount for WLR numbers is calculated with respect to BT's average utilisation rate in the pilot scheme area codes. As we expect that BT is likely to have the highest average utilisation rate (because BT number allocations serve the largest amount of end users – through both internal and external WLR), using a lower industry average rate to calculate the discount for WLR numbers would mean that BT would receive a bigger discount than the actual cost to it per number used.
- A3.60 We do not think that this raises confidentiality issues because the discount applied to BT's number charge invoice would not be visible to any external parties (i.e. the bill is issued by Ofcom to BT). As regards implementation costs for BT, BT would only need to provide Ofcom with a single average utilisation rate across its number blocks in the pilot scheme area codes, and this would be used both to calculate the discount for ported numbers and the discount for WLR numbers (applicable only to BT). We therefore would not foresee additional costs for BT from this solution.
- A3.61 We have considered whether BT would have an incentive to lower its utilisation rate to obtain a bigger discount for WLR numbers. We think that this is unlikely because BT has a general incentive to use numbers efficiently since more numbers are used for its own customers (for which BT will be charged without a discount) than are used to support ported or external WLR numbers (for which BT may obtain a discount).²⁰⁸
- A3.62 To conclude, for the pilot scheme we propose to adopt Option 5, i.e. the discount approach, to deal with ported and WLR numbers. In summary this proposal will involve:
- calculating the discount for ported numbers using an industry average utilisation rate based on a sample of three CPs which have the largest number allocations in the 30 area codes included in the pilot scheme and which together account for a substantial majority of allocated blocks in those area codes.
 - calculating the discount for WLR numbers using BT's average utilisation rate.
- A3.63 We will review this approach as part of the review of the pilot scheme.
- A3.64 Further information on how we propose to calculate the utilisation rates for the discount approach is set out in Annex 4.

Question 4: Do you agree with our proposed approach for ported and WLR numbers? If not, please explain why you disagree.

²⁰⁸ For the year ending 31 March 2011, BT provided 15.7m basic and premium WLR lines internally to its retail arm (76 per cent of total basic and premium WLR lines) compared to 5.0m (24 per cent) basic and premium WLR lines externally. Source: <http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2011/CurrentCostFinancialStatements2011.pdf> page 37. [3<].

Annex 4

Implementing charging for geographic numbers in a pilot scheme

Introduction

- A4.1 In Section 4 we set out our proposals to introduce number charging in a pilot scheme, including the method for selecting the area codes for inclusion. In this annex we provide additional information on the pilot scheme and set out our proposals for its implementation.
- A4.2 We consulted on our billing assumptions in the September 2011 statement and consultation. In this annex we also summarise stakeholders' comments on those assumptions and set out our response and further proposals on the administrative arrangements, including the charging year, implementation process and Ofcom's payment terms.
- A4.3 This information should help CPs plan for the implementation of the pilot scheme if we decide to proceed following this consultation.
- A4.4 If we do proceed, we intend to publish a reference document containing the administrative arrangements for the pilot scheme on our website before the start of the first charging period.

Indicative list of area codes to be included in the pilot scheme

- A4.5 We are proposing to introduce number charging in a pilot scheme covering the 30 area codes with the fewest 1,000-number blocks available for allocation at a defined point in time. If we proceed, we will confirm the list of area codes included in the pilot scheme in the statement, planned for publication in July 2012.
- A4.6 To provide an indication of the potential area codes for inclusion in the pilot scheme, Figure A4.1 below sets out the four-digit area codes with the fewest blocks available as at 21 January 2012, adjusted for confirmed returns by CPs following audits in 2011 and 2012. We have included 50 area codes to provide information on those that might be included in the pilot scheme following movement in allocation levels over the next few months and the area codes that might consequently fall out of the pilot scheme.
- A4.7 The list of potential area codes to be included in the pilot scheme does not include the 11 five-digit areas codes, although all 11 of those area codes would currently feature in a list of the 30 area codes with the fewest number blocks available (the five-digit area codes have between 17 and 41 blocks remaining).
- A4.8 Number block scarcity in the five-digit area codes is a result of the area code and number digit structure, which provides only a tenth of the numbers available in four-digit area codes. However, as five-digit area codes are used in areas with relatively small populations (under 21,000 people in each area), they have lower realised consumer demand for numbers. While only between 107 and 131 number blocks would be available for allocation if we implement a roll out of 100-number blocks in these area codes, such lower demand means that any scarcity issue is less

pressing than in four-digit area codes. Therefore, for the pilot scheme, we consider that it is more appropriate to focus on four-digit area codes in order to delay or avoid the need for number supply measures there.

Figure A4.1 Indicative list of area codes for inclusion in the proposed pilot scheme

| | Area | Area code | Number of 1,000-number blocks available as at 21 January 2012 (adjusted for audit) | Year forecast to run out of existing numbers |
|----|-----------------|------------------|--|---|
| 1 | Bournemouth | 01202 | 16 | 2012 |
| 2 | Middlesbrough | 01642 | 46 | 2014 |
| 3 | Bradford | 01274 | 47 | 2014 |
| 4 | Brighton | 01273 | 53 | 2014 |
| 5 | Aberdeen | 01224 | 65 | 2014 |
| 6 | Swindon | 01793 | 73 | 2017 |
| 7 | Milton Keynes | 01908 | 76 | 2015 |
| 8 | Stoke-on-Trent | 01782 | 76 | 2015 |
| 9 | Oxford | 01865 | 89 | 2017 |
| 10 | Plymouth | 01752 | 94 | 2018 |
| 11 | Norwich | 01603 | 95 | 2017 |
| 12 | Dundee | 01382 | 97 | 2018 |
| 13 | Swansea | 01792 | 100 | 2018 |
| 14 | Cambridge | 01223 | 106 | 2019 |
| 15 | Dudley | 01384 | 107 | 2020 |
| 16 | Colchester | 01206 | 108 | 2019 |
| 17 | Derby | 01332 | 109 | 2019 |
| 18 | Luton | 01582 | 109 | 2020 |
| 19 | Blackpool | 01253 | 110 | 2017 |
| 20 | Northampton | 01604 | 114 | 2018 |
| 21 | Crawley | 01293 | 120 | 2023 |
| 22 | Chelmsford | 01245 | 122 | 2022 |
| 23 | Southend-on-Sea | 01702 | 123 | 2018 |
| 24 | Preston | 01772 | 125 | 2019 |
| 25 | Guildford | 01483 | 126 | 2019 |
| 26 | Warrington | 01925 | 126 | 2021 |
| 27 | Camberley | 01276 | 126 | 2022 |
| 28 | Aldershot | 01252 | 127 | 2019 |
| 29 | Chester | 01244 | 127 | 2021 |
| 30 | Barnsley | 01226 | 128 | 2021 |
| 31 | Bolton | 01204 | 131 | 2019 |
| 32 | Romford | 01708 | 132 | 2023 |
| 33 | Bedford | 01234 | 133 | 2022 |
| 34 | Newbury | 01635 | 134 | 2021 |

| | | | | |
|----|---------------|--------------|------------|------|
| 35 | Hull | 01482 | 138 | 2019 |
| 36 | Basildon | 01268 | 138 | 2022 |
| 37 | Wolverhampton | 01902 | 139 | 2019 |
| 38 | Huddersfield | 01484 | 139 | 2023 |
| 39 | Slough | 01753 | 140 | 2020 |
| 40 | Wakefield | 01924 | 142 | 2021 |
| 41 | Watford | 01923 | 143 | 2021 |
| 42 | Ipswich | 01473 | 145 | 2021 |
| 43 | Worcester | 01905 | 145 | 2021 |
| 44 | Bath | 01225 | 147 | 2019 |
| 45 | Gloucester | 01452 | 148 | 2021 |
| 46 | Blackburn | 01254 | 149 | 2021 |
| 47 | Lancaster | 01524 | 149 | 2026 |
| 48 | Doncaster | 01302 | 152 | 2021 |
| 49 | York | 01904 | 153 | 2021 |
| 50 | Peterborough | 01733 | 157 | 2022 |

Administrative arrangements for implementing the pilot scheme

A4.9 This section sets out the proposed administrative arrangements for the pilot scheme as discussed in the September 2011 statement and consultation and includes stakeholders' comments and Ofcom's response. We then present our final proposals, on which we are consulting in this document.

September 2011 statement and consultation

A4.10 In the September 2011 statement and consultation, we proposed the following billing assumptions for the pilot scheme:

- Ofcom will bill CPs annually;
- CPs will be billed in arrears; and
- charges will accrue on a daily basis.

A4.11 We also explained that the 'Charging Year' would cover the 12-month period ending on a specific annual date. In deciding on the most appropriate charging year, we would consider:

- whether the start and end date for the charging year could avoid the busiest periods for CPs' and Ofcom's finance teams;
- any perceived benefits in linking the billing cycle to the financial or calendar year end (or in avoiding these periods);
- any considerations of HM Government (for example, in relation to accounting for amounts paid into the Consolidated Fund); and

- the date on which number charges start to accrue in the first 'Charging Year' (proposed as six months after the publication of our statement concluding on our charging proposals).

A4.12 In the September 2011 statement and consultation we asked stakeholders the following questions:

Do you have any comments on Ofcom's intended billing assumptions for the proposed pilot charging scheme for geographic numbers?

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

Stakeholders' comments

A4.13 Comments on the proposed billing assumptions and views on the charging year were received from BT, C&WW, 'Name Withheld 1', Sky, Virgin Media and [X].

Proposed billing assumptions

- A4.14 BT, C&WW, 'Name Withheld 1', Sky and [X] agreed that we should bill CPs annually in order to minimise the burden and administrative costs of more frequent billing cycles.
- A4.15 BT, C&WW, 'Name Withheld 1' and Sky agreed with billing CPs in arrears in order to simplify the billing process. However, [X] argued that CPs should be billed in advance as, from its experience, the credit worthiness of some CPs could not be assumed and Ofcom should mitigate this potential liability. Under [X] suggested approach, the charge would be applied at the start of the charging year to all number blocks allocated. Numbers allocated during the year would be paid for prior to allocation on a pro rata basis to the end of the charging year. Numbers returned to Ofcom during the charging year would attract a pro rata credit.
- A4.16 Sky supported our proposal to accrue charges on a daily basis, while BT and C&WW suggested alternative options. BT favoured using an 'annual snapshot', where if a number block is allocated by a CP on a given date, then the annual charge would be applied to those numbers. BT considered that daily accrual was too complex and would add little value. C&WW questioned the materiality versus complexity of billing on a daily basis and wondered whether accruing charges per full month of number allocation would be a simpler approach.
- A4.17 BT, 'Name Withheld 1' and Virgin Media commented on the application of the billing assumptions to our proposed 'discount approach', where the range holder would provide Ofcom with a list of numbers which are ported/used for external WLR and we would apply a discount to the CP's bill for these numbers.
- A4.18 BT considered that the 'snapshot' approach of taking a number's status as at a given date should also be used when gathering information from CPs on ported/WLR numbers.
- A4.19 'Name Withheld 1' stated that billing in arrears was required as Ofcom needed to take account of actual figures for ported and WLR numbers when calculating CPs' annual bills.

- A4.20 Virgin Media considered that accruing number charges on a daily basis was sensible provided that the same basis was used to calculate ported and WLR numbers for the discount approach to account for the full discount due.

Appropriate charging year and billing cycle

- A4.21 BT, 'Name Withheld 1', Sky and [redacted] considered that the charging year should align with either the calendar or financial year.
- A4.22 BT suggested that charges could start to accrue on 1 April. It considered that we should avoid a part-year billing period in the first charging year.
- A4.23 'Name Withheld 1', Sky and [redacted] thought that alignment with the calendar year might be a sensible approach.
- A4.24 [redacted] also suggested alignment to the 1 April to 31 March charging year used for other regulatory matters to provide consistency for the industry in financial dealings with Ofcom.
- A4.25 In terms of finding a charging year that would avoid CPs' busiest periods, Sky commented that financial teams were busy at the start and end of CPs' financial years. However, as CPs had different financial years and Sky expected our charging year to be the same for all CPs, identifying a best fit would be difficult. [redacted] considered the possibility of Ofcom billing CPs according to charging years specific to each CP starting with an initial pro rata charging event.

Ofcom's response

Proposed billing assumptions

- A4.26 We want to develop a process that minimises the administrative burden (and associated costs) on CPs and Ofcom as much as possible, while delivering the incentives for CPs to use numbers more efficiently as identified in Section 4. We therefore want to make the charging process as simple as possible. We welcome CPs' comments on helping to develop this process.
- A4.27 To minimise the administrative burden, we consider that one bill issued annually to each CP with numbers allocated in pilot scheme area codes would be appropriate and note that respondents supported this approach.
- A4.28 The annual bill will cover relevant numbers held by that CP over the previous charging year. Billing in arrears removes the need for complicated reconciliation compared to billing in advance. We note that most CPs who commented on this proposal agreed that annual billing in arrears was preferable to reduce administrative work.
- A4.29 One respondent argued for billing in advance due to concerns about the credit worthiness of some CPs. We have looked at this approach. However, we consider that it would create a considerable increase to CPs' and Ofcom's administrative processes in order to reconcile pre-payment with actual number holdings and to apply credit, or debit, as the case may be, at the end of the charging year. We suggest that a reasonable approach would be to monitor CPs' payment behaviour and consider any case for change as part of the review of the pilot scheme.

- A4.30 One of the intended outcomes from charging is that CPs return to Ofcom allocated number blocks that are no longer required as soon as possible. We consider that charges that accrue on a daily basis provide the best incentive for CPs to act in this way. Charges accrued on another basis (for instance on a monthly basis) may create perverse incentives to retain blocks for longer than required. In addition, such an approach may create difficulties for Ofcom's Numbering Team in processing applications for numbers by certain cut-off dates.²⁰⁹
- A4.31 The choice of whether the charges are accrued on a daily, weekly, monthly or other basis would not create an additional administrative burden as it relates to the calculation rather than frequency of any billing actions. Under our proposal a daily charge would accrue for each day in the charging year that the number is allocated to a CP. We consider that charges that accrue on a daily basis are appropriate and would not increase the administrative burden associated with charging.
- A4.32 As regards numbers provided by the range holder to other CPs under regulated arrangements, to reduce the administrative burden on CPs and Ofcom in providing and collecting data on ported and WLR numbers, we are proposing to take a 'snapshot' of the status of numbers as at a specific date during the charging year. We note that BT, 'Name Withheld 1' and Virgin Media argued for a different approach where the accrual of the number charge and any relevant discount are aligned to ensure a consistent approach (i.e. they suggest that the information on ported and WLR numbers would also be captured on a daily basis to calculate a daily discount). However, we do not consider that alignment would necessarily provide the most cost effective and proportionate approach for each calculation.
- A4.33 Obtaining the data to apply a discount to CPs' bills requires gathering information directly from CPs and verifying a sample of this information. However, unlike calculating the annual number charge which is based on information already held by Ofcom on the numbering database, asking CPs to provide information on ported and WLR numbers recorded on a daily basis would place an unnecessary burden on Ofcom and CPs which we do not think is proportionate in relation to achieving a reasonable discount.

Appropriate charging year and billing cycle

- A4.34 Respondents to the September 2011 statement and consultation suggested alignment of the charging year with either the calendar year (i.e. 1 January to 31 December), standard financial year (i.e. 1 April to 31 March) or CPs' own financial years.
- A4.35 In the absence of any other determining factors, we consider that alignment of the number charging year with other regulatory charging year cycles of 1 April to 31 March would be appropriate. For instance, this would align the charging year with annual licence fees and the publication of the Tariff Tables. We also consider that alignment to the financial year could be beneficial in assisting CPs to co-ordinate internal accounting work and financial planning.
- A4.36 We will implement a single charging year that is applicable to all CPs. We consider that CP-specific charging years would add unnecessary complexity to the process.

²⁰⁹ Under the Communications Act 2003 (and reflected in GC17.11), we must process applications for numbers within three weeks of submission of all the required information.

Final proposals on administrative arrangements for implementing the pilot scheme

- A4.37 Below we set out our final proposals on the administrative arrangements for implementing the pilot scheme. We welcome stakeholders' comments on these proposals, and in particular on those aspects which are new – see sub-paragraph iv) to x) below:
- i) Ofcom will bill CPs annually and in arrears;
 - ii) charges will accrue on a daily basis;
 - iii) the charging year will be the 12-month period from 1 April to 31 March;
 - iv) the first charging year will be 1 April 2013 to 31 March 2014;
 - v) from April 2013, each relevant CP will be asked to provide contact details for invoicing purposes and to consider a direct debit instruction;
 - vi) during July of each charging year, each relevant CP will receive from Ofcom a Validation Statement setting out their relevant number allocations;
 - vii) also in July, CPs will be instructed on how to apply for a discount to their annual number charge in relation to their allocated numbers that have been ported to another CP or used for the provision of external WLR as at 1 October of that charging year. A list of such numbers would need to be provided to Ofcom by 1 December if the CP wants to obtain a discount for that year;
 - viii) during the last quarter of the charging year we will verify a sample of returns in relation to numbers to be discounted by cross-checking with recipient providers for ported numbers and retail providers of WLR that the numbers stated by the range holder have been ported or used for WLR respectively. Discrepancies may result in the discount being withheld;
 - ix) invoices for number charges will be dispatched to CPs during April 2014 and in April each year thereafter; and
 - x) invoices will be issued for full and immediate payment. Payment by direct debit is strongly encouraged. The online payment system will also be available to CPs who are issued a bill of £5,000 or less.²¹⁰
- A4.38 As regards the calculation of the discount referred to in vii) above, prior to April 2013, we will undertake the necessary data gathering from:
- the three CPs with the largest quantity of numbers allocated in the pilot scheme area codes to obtain the average industry utilisation rate²¹¹ across those area codes. This information will be used to calculate the reduction of CPs' number charge bills with respect to ported numbers; and

²¹⁰ The invoice will be issued post application of any discount for ported or WLR numbers. Therefore the online payment system will be available to CPs whose bill is £5,000 or less once on the discount has been applied.

²¹¹ The utilisation rate from each CP will be weighted by the amount of number blocks allocated to that CP to calculate a weighted average. The three CPs in question are BT, C&WW and Virgin Media.

- BT to provide its average utilisation rate across numbers allocated to it in the pilot scheme area codes which will be used to calculate the reduction of BT's number charge bill with respect to numbers it uses to provide external WLR services.

A4.39 The average industry utilisation rate will be published in the document setting out the administrative arrangements for charging to be made available on the Ofcom website before 1 April 2013. BT's average utilisation rate is confidential and will not be published.

Further explanation of the proposed administrative arrangements

A4.40 We plan to introduce the pilot scheme as soon as practicable. CPs (in responses to the September 2011 statement and consultation²¹²) agreed that it would be reasonable to start to accrue charges six months after the publication of our final statement announcing our decision to charge. The statement is scheduled for publication in July 2012. To align with the proposed charging year, we intend to introduce number charging on 1 April 2013.

A4.41 During the first charging year we will work with CPs to prepare for the billing process at the end of the year. We have contact information for each CP allocated numbers and we will use this to establish the appropriate contacts for the billing process and store this information on our systems ready for invoicing. New CPs will be required to provide the relevant contact details at the time they request their first allocation of geographic numbers. The Validation Statement process (see next paragraph) will help to verify the contact information provided

A4.42 During July of each charging year we propose to issue each CP allocated numbers in relevant area codes with a Validation Statement. This statement will provide information on current relevant allocations. It will include a draft invoice of the annual number charge at the end of the charging year if nothing changes in the intervening period (i.e. if no further number blocks are allocated to that CP or returned in pilot scheme area codes and the CP does not apply for a discount to the bill in relation to ported or WLR numbers). The Validation Statement will provide an opportunity for CPs to query the information if necessary and to help streamline the final billing process.

A4.43 Also in July we will remind CPs of the process to be followed to apply for a discount to the annual number charge in relation to ported/WLR numbers. We will request submission of the relevant number status data during the charging year so that the information is processed and a sample verified in advance of compiling the invoices at the end of the charging year. This will allow for a single invoice to be issued to each CP without the need for further adjustment.

A4.44 Discounts will be applied to ported and WLR numbers as per the status of numbers on a specific day during the charging year. We propose to take this 'snapshot' on 1 October of each charging year, being the mid-point of that year. As numbers in an allocated block that are ported/used to provide WLR are likely to increase over time, assessing at the start (or end) of the charging year may understate (or overstate) the position. The mid-point in the year should provide a better reflection of the average position on ported/WLR numbers over the charging year. We therefore propose to ask CPs to provide a list of numbers that they have ported or used to provide WLR as at 1 October. This information would need to be provided by the

²¹² See paragraphs 4.167 to 4.177.

proposed deadline of 1 December for the application of a discount to be considered by Ofcom.

- A4.45 We need to have a sufficient level of confidence that the information provided by CPs when applying for a discount to their annual number charge is accurate. When applying for a discount, we require CPs to provide information on ported and WLR numbers on a per number basis, including the name of the CP using the ported/WLR number. We consider that requiring all CPs to provide this level of detail at the time of applying for the discount will facilitate the CP in examining and verifying the information it submits to Ofcom. It also increases our confidence that the CP can vouch for the numbers listed, and that it has not provided an estimate or average calculation.²¹³
- A4.46 We will cross-check a sample of discount applications. We propose to do this by using our information gathering powers under the Act to require a sample of CPs listed as using the numbers under porting or WLR arrangements to confirm that this is the case. We will look into any discrepancies in the information provided, which may result in all or part of the discount being withheld if the information provided by the CP applying for the discount proves incorrect.
- A4.47 We propose to adjust the discount for ported and external WLR numbers to reflect range holder utilisation of the number blocks allocated in the pilot scheme area codes. We have explained in Annex 3 that we propose to adjust the discount for ported numbers using an average industry utilisation rate whereas the discount for external WLR numbers will be calculated with respect to BT's utilisation rate. For the purpose of calculating the utilisation rate for the discount:
- a number is deemed to be 'utilised' if it is actively in service or reserved for a specific customer;²¹⁴
 - the utilisation rate for each CP is calculated as the total utilised numbers divided by total numbers allocated; and
 - a single utilisation rate will be calculated across all number blocks allocated in the pilot scheme area codes.
- A4.48 For ported numbers, the industry average utilisation rate will be calculated based on the utilisation rates for the three CPs with the largest amount of numbers allocated in the pilot scheme area codes. Each CP's utilisation rate will be weighted according to its number allocations in the pilot scheme area codes to calculate the average.
- A4.49 We will provide CPs with their invoice and associated schedules during April of each charging year. Each CP's schedule will list the number blocks for which the charge is applied and the dates between which the charge has accrued. The detail provided on the schedule will assist CPs to reconcile their bills with their number allocations.

²¹³ We note that C&WW queried, in its response to the September 2011 statement and consultation, why we required information on ported numbers to be disaggregated by recipient provider rather than supplied as a bulk percentage. If it was for cross-checking purposes, C&WW suggested that we request this information only from a sample of CPs when the audit is required. We have set out our reasons for this approach in paragraph in A4.45.

²¹⁴ The proposed definition of 'utilised' here applies to the calculation of the average industry utilisation rate and the BT average utilisation rate only.

- A4.50 Invoices will be issued for immediate and full payment. We consider this appropriate for assets paid for in arrears. This is because the CP has already had the benefit of the number allocation for the period it is paying for and therefore it seems reasonable to require a single payment on receipt of the annual invoice.
- A4.51 We aim to make the payment process as straightforward as possible. We strongly encourage CPs to pay their annual number charge via direct debit. This facilitates the payment collection process at the end of the charging year and also demonstrates that the CP has made the necessary arrangements to pay for its numbers that attract a charge. During July in the first charging year, all CPs with an allocation of numbers in a pilot scheme area code will receive a Direct Debit Instruction for completion and return. Going forward, all CPs applying for their first allocation of numbers in a pilot scheme area code will be sent a Direct Debit Instruction (as well as a link to the document setting out the administrative arrangements for number charging – see paragraph A4.58). Online payment of bills of £5,000 or less will also be available.²¹⁵
- A4.52 We will consider the appropriateness of issuing invoices to CPs that are for an amount below a threshold of materiality and may not be cost-effective for us to process. This threshold will be relatively low, as we want to ensure that as many CPs as possible take into account the social cost of geographic numbers when considering their number block holdings and future demands.
- A4.53 Once the pilot scheme is implemented, there are a number of things that Ofcom can do to require CPs to pay the number charges. We propose that the pilot scheme will be implemented by way of amendment to GC17 (i.e. through the setting of new conditions).²¹⁶ If a CP does not pay the charge within 14 days of receipt of a bill by Ofcom, this will constitute a breach of a General Condition, and Ofcom has the power to take action in respect of such breach, pursuant to sections 96A to 96C of the Act,²¹⁷ including the imposition of specific requirements and a penalty, if appropriate.
- A4.54 Section 58(9) of the Act provides that payments that are required to be made to Ofcom in respect of number allocations (pursuant to section 58(1)(g)), must be paid as soon as they become due in accordance with the conditions imposing the obligation to pay, and, if not so paid, are to be recoverable by them accordingly. This means that Ofcom may bring civil proceedings for recovery of a debt due. Ofcom may also follow this route in other areas, such as the recovery of unpaid licence fees or penalties²¹⁸ and in some instances outsources the debt recovery process to third parties.
- A4.55 We will monitor CPs' payment behaviour as part of the review of the pilot scheme (see paragraph below).
- A4.56 The pilot scheme will be reviewed after two years of operation (i.e. after 31 March 2015). However, this might be done earlier if we become aware of any significant

²¹⁵ Based on current number block holdings, we estimate that the online payment facility is likely to be available to around three-quarters of CPs billed for an annual number charge. Frequently asked questions on online payment can be found on our website at <https://secure.ofcom.org.uk/payments/FAQ.php>.

²¹⁶ See Annex 8.

²¹⁷ These sections were inserted by *The Electronic Communications and Wireless Telegraphy Regulations 2011* which came into force on 26 May 2011.

²¹⁸ For example, see section 346 of the Act.

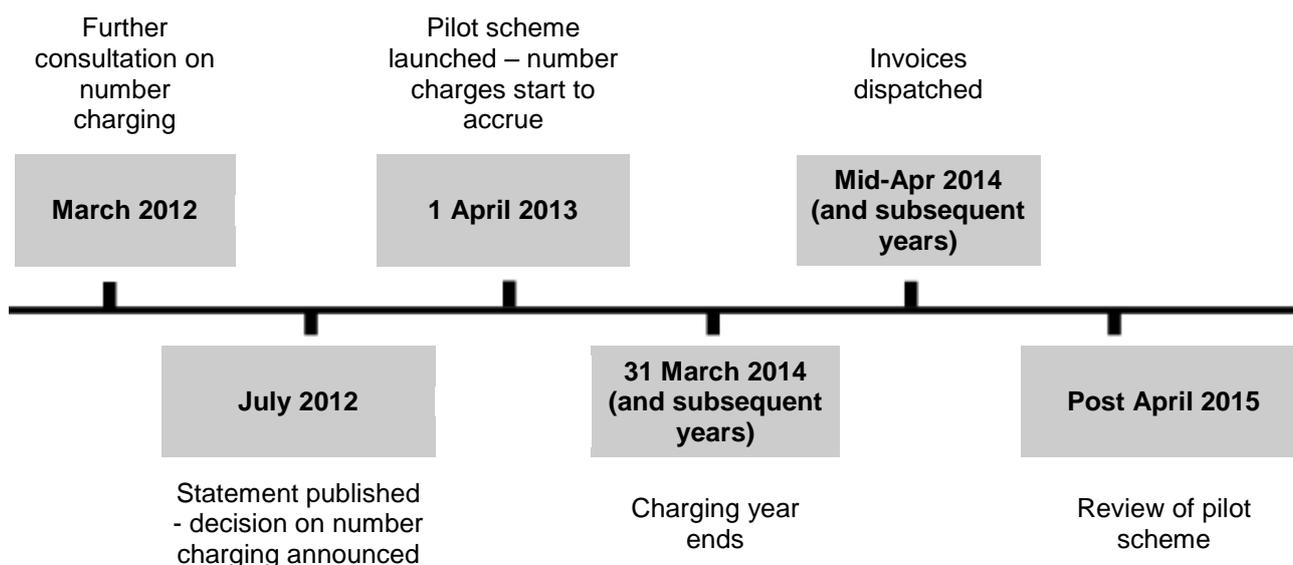
unintended consequences arising from charging, and we are likely to commence data gathering to input into the review during the second charging year.

A4.57 Number charging will continue during the period of the review (unless unintended consequences have been identified that suggest otherwise), which means that CPs should anticipate that the pilot scheme will continue into the third charging year. We intend for the review, including publication of any resulting consultation and statement, to be concluded in sufficient time for the outcome to be implemented by the start of the fourth charging year (i.e. by 1 April 2016).

A4.58 We will publish a standalone reference document on the administrative arrangements for charging for geographic numbers on our website. This document will set out the process for charging, supporting information, relevant links and contacts for more information. We will make this document available following the publication of our concluding statement and in advance of the launch of the pilot scheme. We will update this document as and when appropriate.

A4.59 The proposed timeline for implementing the pilot scheme is set out in Figure A4.2 below.

Figure A4.2: Indicative timeline for implementing the proposed pilot scheme



Question 5: Do you have any comments on the proposed administrative arrangements for number charging in the pilot scheme as set out in paragraph A4.37?

Annex 5

Reviewing our administrative processes for allocating geographic numbers

Introduction

- A5.1 In the September 2011 statement and consultation we confirmed that we are undertaking a review of our administrative processes for allocating geographic numbers, in an exercise separate from that consultation.
- A5.2 The review will examine how we can strengthen our processes for allocating geographic numbers. One proposed measure is to make changes to the forms that CPs must complete when applying for the allocation of telephone numbers. We want to gather more extensive information on CPs' intended use of numbers to inform the allocation decision and to follow up on statements made at the time of the allocation. The forthcoming consultation on these changes will likely include the application forms used for all number types to ensure consistency in approach.
- A5.3 Another measure under consideration is the introduction of a time-limited reservation stage prior to the allocation of geographic numbers to certain applicants. Under this proposal, geographic numbers would be reserved rather than allocated to CPs for whom we have no evidence to suggest that they are operationally ready to put the numbers into use. The reservation would be converted to an allocation upon receipt of such evidence. We would then have more confidence that numbers allocated would be used, and we could withdraw reserved numbers quickly when the reservation period ends if there is no reasonable prospect of use.
- A5.4 In the September 2011 statement and consultation, we also confirmed our intention to strengthen and broaden the scope of our audits of allocated number use and utilisation. Numbering audits are the means whereby we request or require CPs to supply us with information on their use of allocated numbers. Previous audits have led to CPs volunteering a significant quantity of unused number blocks for return to Ofcom.
- A5.5 We recognise that geographic numbers operate in combination with the rest of the numbers in the UK numbering plan and that changes made to the way that numbers in one range are allocated and regulated could have an effect on other number types. Simplifying how non-geographic numbers operate and improving consumer confidence in calling services that use 03, 08 and other non-geographic numbers could encourage take-up and potentially reduce demand for geographic numbers. We are considering such issues as part of our 'Non-Geographic Call Services' (NGCS) review. We published a consultation on non-geographic call services in December 2010.²¹⁹ We plan to publish a further consultation shortly.

²¹⁹ *Simplifying Non-Geographic Numbers: Improving consumer confidence in 03, 08, 09, 118 and other non-geographic numbers*, consultation published 16 December 2010
<http://stakeholders.ofcom.org.uk/consultations/simplifying-non-geo-numbers/>.

Comments in response to the September 2011 statement and consultation

Stakeholders' comments

- A5.6 Sky stated that it was looking forward to our forthcoming consultation on the administrative processes for allocating geographic numbers. ITSPA agreed with our proposals to review the process for allocating geographic numbers, and welcomed measures that would help us to make more informed decisions on whether to allocate numbers to CPs. It agreed this would be invaluable when combined with regular audits of allocated number use.
- A5.7 In principle, ITSPA agreed with consulting on a reservation step in the number allocation process. However, ITSPA highlighted its potential concern over new entrants being unfairly disadvantaged as they try to establish interconnection arrangements with established providers.
- A5.8 [X] questioned the large stock of geographic numbers allocated to some CPs which appeared to outweigh potential demand for numbers from those CPs given their size and/or their reliance on ported numbers. It urged us to use our information gathering powers under section 135 of the Act to investigate CPs' allocations.
- A5.9 [X] expressed disappointment that we were not including a review of the fixed network porting regime as part of our work on geographic number management. It urged us to start a review of General Condition 18 (the number portability condition) as soon as practicable, commenting that the adverse effects of the current regime had an impact on the demand for geographic numbers (among other things).
- A5.10 ITSPA also expressed disappointment that we were not covering the porting regime in our review of geographic number management. ITSPA asked us to investigate industry's problems with porting as soon as possible, as improvements in the number portability system could help to conserve geographic numbers.
- A5.11 [X] urged us to ensure that sufficient measures are undertaken to improve consumer awareness of 03 numbers in the next stage of the NGCS review. Virgin Media also supported our intention (as signalled in the September 2011 statement and consultation) to consider this issue in the next phase of the NGCS review, commenting that a drive to promote 03 numbers could reduce demand for geographic numbers significantly and further delay any need to introduce charging.
- A5.12 Mr M Thomas asked Ofcom to encourage end-users who used large blocks of geographic numbers for DDI (i.e. more than 100 numbers from the same area code) to migrate to non-geographic numbers (especially 03, 0800, 0808 or additional number ranges assigned for the purpose). However, migration should only be encouraged to number ranges with a tariff at the same or lower than geographic rate. Mr Thomas also considered that numbers used for machine to machine purposes (e.g. fax numbers, alarm systems etc.) could be migrated to non-geographic numbers or a specific number range assigned for the purpose. These measures could be encouraged through a mandated reduction in the price of line rental.
- A5.13 SSE suggested that we explore the means to establish a co-regulatory industry forum with a clear constitution, transparent governance and appropriate representation from all CPs who are likely to be affected by geographic number management regulation (i.e. all CPs with retail fixed-line voice customers). SSE

noted that it would not be practical for all CPs to attend meetings, for instance WLR providers, but that their interests should be represented. SSE thought there was an evident need for industry coordination to discuss numbering issues on an ongoing basis and that an established forum, rather than a succession of ad hoc meetings, should be set up to address these. SSE argued that it would serve to meet Ofcom's duties to citizens and consumers if an industry forum was set up to establish inclusive and long term arrangements for managing the public interest aspects of managing telephone numbers.

Ofcom's response

- A5.14 We welcome ITSPA's and Sky's anticipation of the forthcoming consultation on strengthening our administrative processes for allocating geographic numbers. We expect to publish this document in summer 2012.
- A5.15 We recognise that stakeholders may have concerns over the functioning of a number reservation process and need to be confident that it would not affect CPs' ability and timescales for getting products and services to market. In the September 2011 statement and consultation²²⁰ we considered some elements of a number reservation system that should help to achieve this. In particular, we considered that Ofcom would treat the reservation request with the same level of scrutiny as a request for an allocation of numbers. A notification of reservation, therefore, should provide a sufficient basis for CPs' interconnection negotiations to commence in the same way that an allocation of numbers would under the obligations to negotiate in General Condition 1.²²¹ Such negotiations should also proceed on the understanding that on their timely conclusion, the numbers would be allocated. We will consider this matter further in the forthcoming consultation on introducing a number reservation process.
- A5.16 We carry out regular audits of CPs' use of allocated numbers. Withdrawal of unused blocks of allocated numbers can help to defer the need for number supply measures by increasing the pool of number blocks available for allocation. In the past, we have generally undertaken audits of number use on an annual basis and withdrawn significant stocks of numbers with CPs' consent. We conduct audits both on an informal basis, requesting CPs to provide us with certain information, and on a formal basis, where we require the provision of information under the information gathering provisions of sections 135 to 137 of the Act.
- A5.17 In the September 2011 statement and consultation,²²² we commented that improvements in the geographic number porting processes that might help to reduce the requirement for new numbers for consumers would be welcomed but that these were outside the scope of our review of geographic number management, and this continues to be the case. We also noted that implementing a direct routing system for ported numbers was considered and rejected in 2009.²²³ We suggested that the Office of the Telecommunications Adjudicator (OTA) was the appropriate forum to take forward work on improving the geographic number portability process. We remain of this view.

²²⁰ See paragraph 5.118 of the September 2011 statement and consultation.

²²¹ General Condition 1 on General Access and Interconnection Obligations obliges CPs, to the extent requested by another CP, to negotiate with that CP with a view to concluding an agreement (or an amendment to an existing agreement) for interconnection within a reasonable period.

²²² Paragraph 5.174 of the September 2011 statement and consultation.

²²³ Statement available at

http://stakeholders.ofcom.org.uk/binaries/consultations/gc18_routing/statement/statement.pdf.

- A5.18 Nevertheless, we will consider any actions that we can take to remind CPs of their obligations in relation to portability under General Condition 18, which may facilitate its provision. One way of helping to promote CPs' awareness of their obligations might be to include a statement to this effect on the forms that CPs must complete when applying for the allocation of numbers, so that CPs consider the requirement to provide portability to other CPs if requested at the point of number allocation. We will progress this initiative as part of our review of our number allocation processes.
- A5.19 In the forthcoming further consultation on the NGCS review, we will set out our plans for promoting the 03 'UK wide Numbers at a geographic rate' number range and for improving consumers' awareness of 03 numbers. We consider that the 03 number range provides a valuable alternative to other non-geographic numbers and may be an alternative to geographic numbers for some public sector organisations and businesses. However, we do not anticipate that 03 numbers are likely to significantly reduce CPs' demand for geographic numbers at this stage.
- A5.20 In response to SSE's proposal for a co-regulatory forum to discuss numbering issues, we consider this a useful suggestion. We note that such a forum existed previously in the form of an UKCTA (the UK Competitive Telecommunications Association)²²⁴ numbering sub-group, which no longer meets on a regular basis. The current membership of the 'Closing local dialling industry group' have also commented on the lack of a general numbering industry group and will take this into consideration when proposing any change to its remit, which it expects to review by 30 June 2012.

²²⁴ UKCTA is a trade association for fixed line telecommunications companies who do not have Significant Market Power within the UK call origination market excluding Hull: www.ukcta.org.uk.

Annex 6

Legal framework

The legal framework

A6.1 Ofcom regulates the communications sector under the framework established by the Communication Act 2003 (the “Act”). The Act provides, among other things in relation to numbering, for the publication of the National Telephone Numbering Plan (the ‘Numbering Plan’) and the setting of General Conditions of Entitlement relating to Telephone Numbers (‘Numbering Condition’, or ‘GC17’). It also sets out statutory procedures governing the modification of the Numbering Plan and any General Conditions.

Ofcom’s general duty as to telephone numbering functions

A6.2 Ofcom has a general duty under section 63(1) of the Act in carrying out its numbering functions:

“a) to secure that what appears to them to be the best use is made of the numbers that are appropriate to use as telephone numbers; and

b) to encourage efficiency and innovation for that purpose.”

Principal duties of Ofcom

A6.3 The principal duty of Ofcom to be observed in the carrying out of its functions is set out in section 3(1) of the Act as the duty:

“a) to further the interests of citizens in relation to communications matters; and

b) to further the interests of consumers in relevant markets, where appropriate by promoting competition.”

Duties for the purpose of fulfilling Community obligations

A6.4 In addition to our general duties and our duty regarding telephone numbers, Ofcom must also take into account the six Community requirements in carrying out its functions as set out in section 4 of the Act. These include the requirement to promote competition in the provision of electronic communications networks and services, as well as the requirement to promote the interests of European citizens.

The Numbering Plan

A6.5 Section 56(1) of the Act states that:

“It shall be the duty of OFCOM to publish a document (to be known as “the National Telephone Numbering Plan”) setting out-

a) the numbers that they have determined to be available for allocation by them as telephone numbers;

- b) such restrictions as they consider appropriate on the adoption of numbers available for allocation in accordance with the plan;
- ba) such requirements as they consider appropriate, for the purpose of protecting consumers, in relation to the tariff principles and maximum prices applicable to numbers so adopted or available for allocation; and
- c) such restrictions as they consider appropriate on the other uses to which numbers available for allocation in accordance with the plan may be put.”

A6.6 The Act provides for Ofcom to review and revise the Numbering Plan. Section 56(2) states that:

“It shall be OFCOM’s duty -

- a) from time to time to review the National Telephone Numbering Plan; and
- b) to make any modification to that plan that they think fit in consequence of such a review; but this duty must be performed in compliance with the requirements, so far as applicable, of section 60.”

A6.7 Section 60 of the Act provides for the modification of documents referred to in the Numbering Conditions (which includes the Numbering Plan) and explains the procedures to be followed in order to conduct this review. Section 60(2) of the Act provides that:

“OFCOM must not revise or otherwise modify the relevant provisions unless they are satisfied that the revisions is -

- a) objectively justifiable in relation to the matter to which it relates;
- b) not such as to discriminate unduly against particular persons or against a particular description of persons;
- c) proportionate to what the modification is intended to achieve; and
- d) in relation to what is intended to achieve, transparent.”

A6.8 Section 60(3) further provides that:

“Before revising or otherwise modifying the relevant provisions, OFCOM must publish a notification -

- a) stating that they are proposing to do so;
- b) specifying the Plan or other document that they are proposing to revise or modify;
- c) setting out the effect of their proposed revisions or modifications;
- d) giving their reasons for making the proposal; and
- e) specifying the period within which representations may be made to OFCOM about their proposals.”

The Numbering Condition

A6.9 Section 45 of the Act gives Ofcom the power to set conditions:

“(1) Ofcom shall have the power to set conditions under this section binding the persons to whom they are applied in accordance with section 46;

(2) A condition set by Ofcom under this section must be either -

(a) a general condition....”

A6.10 Section 58 of the Act sets out that general conditions may include conditions about the allocation and adoption of numbers; these include conditions which impose restrictions and requirements on communications providers in connection with the allocation and adoption of telephone numbers.

A6.11 In particular, section 58(1)(g) provides that general conditions may include conditions which:

“require payments of such amounts as may be determined by Ofcom to be made to them by a person in respect of the allocation to him of telephone numbers”.

A6.12 Section 58(6) provides that general conditions providing for payments to be made to Ofcom pursuant to section 58(1)(g):

“a) must set out the principles according to which the amounts of the payments are to be determined;

b) may provide for the payments to consist of a lump sum in respect of a particular allocation or transfer or of sums payable periodically while an allocation remains in force, or of both;

c) may provide for the amounts to be determined by reference to —
...(ii) any other factors...as Ofcom think fit.”

A6.13 Section 47(2) of the Act sets out the test for setting or modifying conditions. The condition or modification must be:

“(a) objectively justifiable in relation to the networks, services, facilities, apparatus or directories to which it relates (but this paragraph is subject to subsection (3));

(b) not such to discriminate unduly against particular persons or against a particular description of persons;

(c) proportionate to what the condition or modification is intended to achieve; and

(d) in relation to what is intended to achieve, transparent.”

A6.14 Section 47(3) states:

“Subsection (2)(a) does not apply in relation to the setting of a general condition”.

A6.15 Section 48 of the Act sets out the procedure for setting, modifying and revoking conditions. According to section 48(2), where section 48(A) applies, Ofcom must

comply with the requirements set out in sections 48(A) and 48(B) before setting, modifying or revoking any conditions.

A6.16 Section 48(A) applies, among other things, where Ofcom proposes to set, modify or revoke:

“...b) any other conditions set under section 45 where what is proposed would, in Ofcom’s opinion, have a significant impact on a market for any of the services, facilities, apparatus or directories in relation to which they have functions under this Chapter.”

A6.17 Section 48A(3) provides that Ofcom must publish a notification:

“a) stating that they are proposing to set, modify or revoke the conditions that are specified in the notification;

b) setting out the effect of those conditions, modifications or revocations;

c) giving their reasons for making the proposal; and

d) specifying the period within which representations may be made to Ofcom about their proposal.”

A6.18 The consultation period must be no less than one month after the day of the publication of the notification (section 48A(4)), unless there are exceptional circumstances.

A6.19 Section 48(C)(1) provides that Ofcom must send to the Secretary of State a copy of every notification published under section 48A(3).

Annex 7

Notification of proposals for a modification to provisions of the Numbering Plan under section 60(3) of the Communications Act 2003

1. Ofcom, in accordance with section 60 of the Act, hereby makes the following proposals for a modification to the provisions of the Numbering Plan.
2. The condition has effect by reference to provisions of the Numbering Plan.
3. The draft modification to the Numbering Plan is set out in the Schedule to this Notification.
4. The reasons for making the proposal and the effect of the modifications are set out in the accompanying document.
5. Ofcom considers that the proposed modification complies with the requirements in section 60(2) of the Act.
6. In making the proposals referred to above Ofcom have considered and acted in accordance with the six Community requirements in section 4 of the Act as well as performed their general duties under section 3 of the Act and their duty as to telephone numbering in section 63 of the Act.
7. Representations may be made to Ofcom about the proposal by **5pm on 2 May 2012**.
8. Copies of the Notification have been made available to the Secretary of State.
9. In this Notification-
 - 'Act' means the Communications Act 2003;
 - 'Condition' means General Condition 17 of the General Conditions of Entitlement set by the Director by way of publication of a Notification on 22 July 2003;
 - 'Ofcom' means the Office of Communications; and
 - 'Numbering Plan' means the National Telephone Numbering Plan published from time to time by Ofcom.

Signed by

David Stewart
Competition Policy Director

A person authorised by Ofcom under paragraph 18 of the Schedule to the Office of Communications Act 2002.

20 March 2012

Draft Schedule

A. The following text shall be deleted from the Numbering Plan in ‘Part B: Restrictions for the Adoption of Telephone Numbers’ under ‘B3: Specific Restrictions on Telephone Numbers’-

Local Dialling

B3.1.3 Geographic Numbers shall not be Adopted or otherwise used other than where End-Users from Geographic Numbers in the same geographic area as the Called Party are able to use only the Subscriber Number (except where those numbers are National-Dialling-Only Numbers – see B3.1.5 below).

B. The following text shall be inserted alphabetically in the ‘Definitions and Interpretation’ section;-

‘100-Number Block Area’ means a geographic area in which 100-number blocks have been made available for allocation;

C. The following text shall be inserted in the Numbering Plan in ‘Part B: Restrictions for the Adoption of Telephone Numbers’ under ‘B3: Specific Restrictions on Telephone Numbers’:-

Local Dialling

B3.1.3 Geographic Numbers shall not be Adopted or otherwise used other than where End-Users from Geographic Numbers in the same geographic area as the Called Party are able to use only the Local Number except where:
 (i) those numbers are National-Dialling-Only Numbers – see B3.1.6 below; or
 (ii) End-Users are from Geographic Numbers in the 01202 Geographic Area Code after 1 November 2012.

B3.1.4 Local Dialling shall not be provided from Geographic Numbers in the 01202 Geographic Area Code after 1 November 2012.

D. In the Numbering Plan, current paragraph B3.1.4 is renumbered B3.1.5, current paragraph B3.1.5 is renumbered B3.1.6, current paragraph B3.1.6 is renumbered B3.1.7 and current paragraph B3.1.7 is renumbered paragraph B3.1.8. A new paragraph B3.1.9 is inserted as follows (including sub-heading):-

100-Number Block Areas

B3.1.9 Numbers in geographic areas where a 100-Number Block Status is indicated and a block of that level has been allocated shall only be Adopted or otherwise used in units of 100 numbers at a time.

E. The following column shall be inserted in ‘Appendix A: Geographic Numbering – Geographic Area Codes and applicable Geographic Area’ to the right of the column entitled ‘Conservation Status’:-

| |
|--|
| 100- Number Block Status ² |
|--|

² 100-number block status is indicated as Y

F. The following text (shown in bold font for indicative purposes) shall be inserted numerically by Geographic Area Code in 'Appendix A: Geographic Numbering – Geographic Area Codes and applicable Geographic Area':-

| Geographic Area Code | Geographic Area | Conservation Status | 100-Number Block Status |
|----------------------|-------------------|---------------------|-------------------------|
| 013873 | Langholm | Y | Y |
| 015242 | Hornby | Y | Y |
| 015394 | Hawkshead | Y | Y |
| 015395 | Grange over Sands | Y | Y |
| 015396 | Sedbergh | Y | Y |
| 016973 | Wigton | Y | Y |
| 016974 | Raughton Head | Y | Y |
| 017683 | Appleby | Y | Y |
| 017684 | Pooley Bridge | Y | Y |
| 017687 | Keswick | Y | Y |
| 019467 | Gosforth | Y | Y |

Annex 8

Notification proposing the setting of new conditions under section 48A(3) of the Communications Act 2003

Proposals to set new conditions under General Condition 17 regarding the payment by Communications Providers to Ofcom of charges for allocation of certain geographic numbers

1. Ofcom in accordance with section 48A(3) of the Act hereby makes the following proposals to set new conditions under General Condition 17 of the General Condition Notification regarding the payment by Communications Providers to Ofcom of charges for allocation of certain geographic numbers.
2. The draft conditions are set out in the Schedule to this Notification together with the resulting changes to the remainder of General Condition 17.
3. The effect of, and Ofcom's reasons for making, the Proposals are set out in the accompanying consultation document.
4. Ofcom considers that the Proposals comply with the requirements of sections 45 to 49C of the Act, as appropriate and relevant to their proposal. Ofcom does not consider that the Proposals are of EU Significance pursuant to section 150A(2) of the Act.
5. In making the Proposals, Ofcom has considered and acted in accordance with their general duties in section 3 and of the Act and the six Community requirements in section 4 of the Act.
6. Representations may be made to Ofcom about the Proposals **by 5pm on 2 May 2012**.
7. If implemented, the new conditions shall enter into force on a date specified in Ofcom's final statement on geographic telephone numbers.
8. Copies of this Notification and the accompanying document have been sent to the Secretary of State in accordance with section 48C(1) of the Act.
9. In this Notification:
 - (a) "the Act" means the Communications Act 2003;
 - (b) "General Conditions" means the general conditions set by the General Conditions Notification as amended;
 - (c) "General Condition Notification" means the notification setting General Conditions under section 45 of the Act, issued by the Director General of Telecommunications on 22 July 2003, as subsequently amended;
 - (d) "Ofcom" means the Office of Communications;

(e) "Proposals" means the proposals in this Notification as described in paragraph 1.

10. Except insofar as the context otherwise requires, words or expressions shall have the meaning assigned to them in this Notification and otherwise any word or expressions shall have the same meaning as it has in the General Condition Notification and otherwise any word or expression shall have the same meaning as it has in the Act.
11. For the purpose of interpreting this Notification: (a) headings and titles shall be disregarded; and (b) the Interpretation Act 1978 shall apply as if this Act were an Act of Parliament.
12. The Schedule to this Notification shall form part of this Notification.

David Stewart

Competition Policy Director

20 March 2012

A person authorised by Ofcom under paragraph 18 of the Schedule to the Office of Communications Act 2002.

SCHEDULE

NEW CONDITIONS ADDED TO GENERAL CONDITION 17: CHARGING FOR SPECIFIED GEOGRAPHIC NUMBERS

The proposed new conditions and resulting changes to the remainder of General Condition 17 are marked in bold in the following text.

17. ALLOCATION, ADOPTION AND USE OF TELEPHONE NUMBERS

General Prohibitions on Adoption and Use

- 17.1 A Communications Provider shall not Adopt Telephone Numbers from the National Telephone Numbering Plan unless:
- (a) the Telephone Numbers have been Allocated to the Communications Provider;
 - (b) the Communications Provider has been authorised (either directly or indirectly) to Adopt those Telephone Numbers by the person Allocated those Telephone Numbers.
- 17.2 The Communications Provider may only use a Telephone Number from the National Telephone Numbering Plan where that Telephone Number has been Allocated to a person, unless the use in question is for the purposes of indicating that the Telephone Number has not been Allocated.
- 17.3 The Communications Provider may only use (or, where specified, Adopt) a Telephone Number listed in ~~the~~ **Annex 1** to this Condition where such use or Adoption is in accordance with the designation attributed to that Telephone Number in ~~the~~ **Annex 1**.

Requirements in Connection with the Adoption of Telephone Numbers

- 17.4 The Communications Provider shall have a Numbering Plan for such Telephone Numbers as Ofcom may Allocate to it from time to time. Except where Ofcom otherwise consents in writing, such Numbering Plan shall be consistent with the National Telephone Numbering Plan. When applying for Telephone Numbers, the Communications Provider shall provide such details of its Numbering Plan to Ofcom as are relevant to the application.
- 17.5 The Communications Provider shall install, maintain and adjust its Public Electronic Communications Network so that it routes Signals and otherwise operates in accordance with the National Telephone Numbering Plan and any Allocation of Telephone Numbers made by Ofcom from time to time.
- 17.6 Where Telephone Numbers have been Allocated to the Communications Provider, that provider shall secure that such Telephone Numbers are Adopted or otherwise used effectively and efficiently.
- 17.7 The Communications Provider shall not unduly discriminate against another Communications Provider in relation to its Adoption or use of Telephone

Numbers for purposes connected with the use by that other Communications Provider, or its Customers, of any Electronic Communications Network or Electronic Communications Service.

- 17.8 The Communications Provider shall take all reasonably practicable steps to secure that its Customers, in using Telephone Numbers, comply with the provisions of this Condition, where applicable, and the provisions of the National Telephone Numbering Plan.

Requirements in Connection with the transfer of use of Allocated Telephone Numbers²²⁵

- 17.9 The Communications Provider shall not transfer use of Telephone Numbers from the National Telephone Numbering Plan unless:
- (a) the Telephone Numbers have been Allocated to the Communications Provider; or the Communications Provider has been authorised (either directly or indirectly) to Adopt those Telephone Numbers by the person Allocated those Telephone Numbers;
 - (b) the telephone numbers are used in accordance with the National Telephone Numbering Plan; and
 - (c) the Telephone Numbers are Adopted or otherwise used effectively and efficiently.

Application for Allocation or Reservation of Telephone Numbers

- 17.10 When applying for an Allocation or reservation of Telephone Numbers, the Communications Provider shall: (a) use an appropriate application form as directed by Ofcom from time to time as it thinks fit; (b) provide such information as is required by such application form; and (c) provide to Ofcom, on request, any other information considered by Ofcom to be relevant to the application, and the supply of which does not place an undue burden on the Communications Provider.
- 17.11 Ofcom will determine, taking into account the provisions of the National Telephone Numbering Plan, any application for Telephone Numbers by the end of the period of three weeks after the date of the receipt by it of the completed application form. Where Ofcom has required any additional information under paragraph 17.9(c) in relation to any application, Ofcom will determine the application by the end of the period of three weeks after the date of the receipt by it of that additional information.

Allocation of Telephone Numbers for a limited period²²⁶

- 17.12 Ofcom may Allocate Telephone Numbers to the Communications Provider for a limited period only if the duration is appropriate for the service concerned in view of the objective pursued and taking due account of the need to allow for an appropriate period for investment amortisation.

²²⁵ Changes to the General Conditions and Universal Service Conditions (Implementing the revised EU Framework), Statement and Notification, 25 May 2011, inserting new General Condition 17.9 on transfer and use of Allocated Telephone Numbers.

²²⁶ Changes to the General Conditions and Universal Service Conditions (Implementing the revised EU Framework), Statement and Notification, 25 May 2011, inserting new General Condition 17.12 and 17.13 on Allocation of Telephone Numbers for a limited period.

17.13 Where Telephone Numbers are Allocated to the Communications Provider by Ofcom for a limited period of time, Ofcom may withdraw any such Allocated numbers at the end of the set period.

Charging for Specified Geographic Numbers²²⁷

17.14 The Communications Provider shall pay to Ofcom any applicable Annual Number Charge within 14 days of receipt of an invoice from Ofcom.

17.15 The Annual Number Charge will be billed annually in arrears following the end of each Charging Year.

17.16 The Annual Number Charge for a Communications Provider shall be:

(a) the charges applicable to that Communications Provider calculated in accordance with paragraph 17.17; less

(b) any reduction applicable to that Communications Provider calculated in accordance with paragraph 17.18.

17.17 In respect of each Specified Geographic Number the Communications Provider must pay £0.1/365 for every day within the Charging Year for which that Specified Geographic Number is Allocated to it. Such amounts are payable irrespective of whether or not a Specified Geographic Number has been Adopted or is in use.

17.18 If relevant, the amount of any reduction for a Communications Provider in respect of a Charging Year shall be:

(a) (the total number of the Communications Provider's Ported Numbers) x £0.1 ÷ (the Average Industry Utilisation Rate); plus

(b) (the total number of the Communication Provider's WLR Numbers) x £0.1 ÷ (the BT Average Utilisation Rate).

17.19 If any reduction calculated pursuant to paragraph 17.18 exceeds the charges applicable to that Communications Provider calculated in accordance with paragraph 17.17, the Annual Number Charge shall be zero.

Withdrawal of a Number Allocation

17.20 It is hereby declared that Ofcom may withdraw an Allocation of Telephone Numbers from a Communications Provider where: (a) the Communications Provider has not Adopted those Telephone Numbers within six months, or such other period as Ofcom may from time to time direct, from the date on which the Telephone Numbers were Allocated, or (b) in relation to an Allocation of a series of Telephone Numbers, the Communications Provider has not Adopted those Telephone Numbers to any significant extent within six months, or such other period as Ofcom may from time to time direct, from the date on which the series of Telephone Numbers was Allocated.

Requirements in connection with the use of telephone numbers²²⁸

²²⁷ **"Geographic telephone numbers: Safeguarding the future of geographic numbers", Statement dated [X] 2012. General Conditions 17.14 to 17.19 will come into force on [] 2013.**

17.21 Where Customers of a Communications Provider are making calls to UK-wide Numbers (03)²²⁹, Harmonised numbers for harmonised services of social value (116XXX numbers)²³⁰ or Non-Geographic Numbers starting 0870²³¹, the Communications Provider shall comply with the designations for those numbers in the National Telephone Numbering Plan.

17.22 For the purposes of this Condition,

- (a) “Affiliated Company” means any subsidiary or holding company of the Communications Provider, or any subsidiary of a holding company of the Communications Provider, all as defined in section 1159 of the Companies Act 2006;**
- (b) “Annual Number Charge” is a charge invoiced by Ofcom to a Communications Provider in respect of a Charging Year and is calculated in accordance with paragraph 17.16;**
- (c) “Average Industry Utilisation Rate” means the weighted average utilisation rate of Specified Geographic Numbers for the industry as calculated by Ofcom and notified to Communications Providers prior to the first Charging Year;**
- (d) “BT” means BT Group plc.;**
- (e) “BT Average Utilisation Rate” means the average utilisation rate for BT’s Specified Geographic Numbers calculated by Ofcom and notified to BT prior to each Charging Year;**
- (f) “Charging Year” means the 12 month period beginning on 1 April and ending on 31 March, and the first Charging Year shall be 1 April 2013 to 31 March 2014;**
- (g) “Communications Provider” means a person who provides an Electronic Communications Network or an Electronic Communications Service;**
- (h) “Geographic Area Code” has the meaning given to it in the National Telephone Numbering Plan;**
- (i) “Geographic Number” has the meaning given to it in the National Telephone Numbering Plan;**
- (j) “Numbering Plan” means a plan describing the method used or to be used for the Adoption of a Telephone Number by the Communications Provider;**

²²⁸ Raising confidence in telephone numbers: amending General Condition 17, Notification, 31 May 2007 - inserted new condition 17.12 and renumbering 17.12 to condition 17.13.

²²⁹ Review of the 070 personal numbering range, statement and notification (and correction), 27 February 2009 – deleted “or Personal Numbering Service (070) numbers”.

²³⁰ Statement on Harmonised European numbers for services of social value – Allocation and charging arrangements for 116 numbers in the UK including modification to General Condition 17 – deleted the word “either” and added the words “or Harmonised numbers for harmonised services of social value (116XXX numbers)” into 17.12.

²³¹ Changes to 0870, Statement and notification of 23 April 2009, with effect from 1 August 2009, amending condition 17.12, replacing the word “or” before “Harmonised” with “,” and inserting “or Non-Geographic Numbers starting 0870” after “(116XXX numbers)”.

- (k) “Ported Number” means a Specified Geographic Number Allocated to the Communications Provider which Ofcom is satisfied (pursuant to information received from the Communications Provider by 1 December of the Charging Year (or such other date as Ofcom notifies prior to the start of the Charging Year)) was at 1 October of the Charging Year (or such other date as Ofcom notifies prior to the start of the Charging Year) subject to an arrangement under which that Communications Provider had ported that Specified Geographic Number to a person who was not an Affiliated Company;**
- (l) “Specified Geographic Number” means a Geographic Number (identified by the Geographic Area Code) set out in Annex 2;**
- (m) “WLR” means Wholesale Line Rental, a regulated wholesale service sold by BT, which is used by the Communications Provider to provide retail customers with exchange lines and, in turn, access to other narrowband telephony services (for example, telephone calls, facsimile and dial-up internet access);**
- (n) “WLR Number” means a Specified Geographic Number Allocated to the Communications Provider which Ofcom is satisfied (pursuant to information received from the Communications Provider by 1 December of the Charging Year (or such other date as Ofcom notifies prior to the start of the Charging Year)) was at 1 October of the Charging Year (or such other date as Ofcom notifies prior to the start of the Charging Year) subject to an arrangement under which that Communications Provider was providing WLR to a person who was not an Affiliated Company.**

Annex 1 to Condition 17

List of Telephone Numbers available for use, or, where specified, Adoption, only in accordance with designation, under paragraph 17.3 of Condition 17: Allocation, Adoption and Use of Telephone Numbers

[Note: the contents of Annex 1 are not subject to any further modification and are therefore not reproduced here.]

Annex 2 to Condition 17

Geographic Numbers which are Specified Geographic Numbers for the purposes of General Condition 17.²³²

| 1. Specified Geographic Numbers identified by Geographic Area Code: | |
|--|-----------------|
| Geographic Area Code | Area |
| 01202 | Bournemouth |
| 01642 | Middlesbrough |
| 01274 | Bradford |
| 01273 | Brighton |
| 01224 | Aberdeen |
| 01793 | Swindon |
| 01908 | Milton Keynes |
| 01782 | Stoke-on-Trent |
| 01865 | Oxford |
| 01752 | Plymouth |
| 01603 | Norwich |
| 01382 | Dundee |
| 01792 | Swansea |
| 01223 | Cambridge |
| 01384 | Dudley |
| 01206 | Colchester |
| 01332 | Derby |
| 01582 | Luton |
| 01253 | Blackpool |
| 01604 | Northampton |
| 01293 | Crawley |
| 01245 | Chelmsford |
| 01702 | Southend-on-Sea |
| 01772 | Preston |
| 01483 | Guildford |
| 01925 | Warrington |
| 01276 | Camberley |
| 01252 | Aldershot |
| 01244 | Chester |
| 01226 | Barnsley |

In this Annex, any word or expression shall have the same meaning as it has in General Condition 17 or the National Telephone Numbering Plan.

²³² The area codes included in the list are preliminary and, if the pilot scheme is implemented, the list will be finalised in the statement.

Annex 9

Respondents to the September 2011 statement and consultation

- A9.1 We received 14 responses to the September 2011 Statement and Consultation, one of which is confidential. The non-confidential responses are available on our website [here](#).
- A9.2 Non-confidential responses were received from the following organisations:
- British Sky Broadcasting Group plc (Sky)
 - BT plc (BT)
 - Cable&Wireless Worldwide (C&WW)
 - Internet Telephony Service Providers' Association (ITSPA)
 - Magrathea
 - SSE plc
 - Virgin Media
- A9.3 Non-confidential responses were received from the following individuals:
- Mr M. Alexander
 - Mr J. Diamond
 - Mr C. Stuart
 - Mr M. Thomas
- A9.4 Two respondents requested that their names be withheld from publication and are referred to as 'Name Withheld 1' and 'Name Withheld 2'.

Annex 10

Consultation questions

A10.1 We have included a number of specific consultation questions in this document and we would like you to consider these when responding. We have set out these questions below for ease of reference. We also welcome general comments on our consultation proposals.

Section 3: Closing local dialling in the Bournemouth 01202 area code

Question 1: Do you have any comments on:
i) our proposal to close local dialling in the Bournemouth 01202 area code on 1 November 2012;
ii) our view as to how the proposed modification to the Numbering Plan in relation to closing local dialling in the 01202 area code on 1 November 2012 meets the relevant legal tests in section 60(2) of the Act; or
iii) the proposed modification to the Numbering Plan in relation to closing local dialling in the 01202 area code (set out in Annex 7)?

Section 4: Charging for geographic numbers

Question 2: Do you have any comments on:
i) our view as to how the proposed pilot scheme meets the relevant legal tests in section 47(2) of the Act; and
ii) the proposed amendments to GC17 to implement the pilot scheme (set out in Annex 8)?

Section 5: Allocation of 100-number blocks

Question 3: Do you have any comments on:
i) our proposals to make 100 blocks of 100-numbers available for allocation in the 11 five-digit area codes;
ii) our submission of how the proposed modification to the Numbering Plan in relation to 100-number blocks meets the relevant legal tests in section 60(2) of the Act; or
iii) the proposed modification to the Numbering Plan in relation to 100-number blocks (set out in Annex 7)?

Annex 3: Approach to number charges when the CP using the number is different from the range holder

Question 4: Do you agree with our proposed approach for ported and WLR numbers? If not, please explain why you disagree.

Annex 4: Implementing number charging in a pilot scheme

Question 5: Do you have any comments on the proposed administrative arrangements for number charging in the pilot scheme as set out in paragraph A4.37?

Annex 11

Responding to this consultation

How to respond

- A11.1 Ofcom invites written views and comments on the issues raised in this document, to be made **by 5pm on 2 May 2012**.
- A11.2 Ofcom strongly prefers to receive responses using the online web form at <https://stakeholders.ofcom.org.uk/consultations/geographic-telephone-numbers/howtorespond/form>, as this helps us to process the responses quickly and efficiently. We would also be grateful if you could assist us by completing a response cover sheet (see Annex 13), to indicate whether or not there are confidentiality issues. This response coversheet is incorporated into the online web form questionnaire.
- A11.3 For larger consultation responses - particularly those with supporting charts, tables or other data - please email geographic.telephonenumber@ofcom.org.uk attaching your response in Microsoft Word format, together with a consultation response coversheet.

Responses may alternatively be posted or faxed to the address below, marked 'Geographic telephone numbers':

Elizabeth Greenberg
4th Floor
Competition Group
Ofcom
Riverside House
2A Southwark Bridge Road
London SE1 9HA

Fax: 020 7783 4109

- A11.4 Note that we do not need a hard copy in addition to an electronic version. Ofcom will acknowledge receipt of responses if they are submitted using the online web form but not otherwise.
- A11.5 It would be helpful if your response could include direct answers to the questions asked in this document, which are listed together at Annex 10. It would also help if you can explain why you hold your views and how Ofcom's proposals would impact on you.

Further information

- A11.6 If you want to discuss the issues and questions raised in this consultation, or need advice on the appropriate form of response, please contact Elizabeth Greenberg on 020 7783 4163.

Confidentiality

- A11.7 We believe it is important for everyone interested in an issue to see the views expressed by consultation respondents. We will therefore usually publish all responses on our website, www.ofcom.org.uk, ideally on receipt. If you think your response should be kept confidential, can you please specify what part or whether all of your response should be kept confidential, and specify why. Please also place such parts in a separate annex.
- A11.8 If someone asks us to keep part or all of a response confidential, we will treat this request seriously and will try to respect this. But sometimes we will need to publish all responses, including those that are marked as confidential, in order to meet legal obligations.
- A11.9 Please also note that copyright and all other intellectual property in responses will be assumed to be licensed to Ofcom to use. Ofcom's approach on intellectual property rights is explained further on its website at <http://www.ofcom.org.uk/about/accoun/disclaimer/>

Next steps

- A11.10 Following the end of the consultation period, Ofcom intends to publish two statements. The first statement will conclude on the consultation in relation to closing local dialling in the Bournemouth 01202 area code and is expected to be published in May 2012. The second statement will conclude on our proposals in relation to number charging and 100-number block allocations. This statement is scheduled for publication in July 2012.
- A11.11 Please note that you can register to receive free mail updates alerting you to the publications of relevant Ofcom documents. For more details please see: http://www.ofcom.org.uk/static/subscribe/select_list.htm

Ofcom's consultation processes

- A11.12 Ofcom seeks to ensure that responding to a consultation is easy as possible. For more information please see our consultation principles in Annex 12.
- A11.13 If you have any comments or suggestions on how Ofcom conducts its consultations, please call our consultation helpdesk on 020 7981 3003 or e-mail us at consult@ofcom.org.uk. We would particularly welcome thoughts on how Ofcom could more effectively seek the views of those groups or individuals, such as small businesses or particular types of residential consumers, who are less likely to give their opinions through a formal consultation.
- A11.14 If you would like to discuss these issues or Ofcom's consultation processes more generally you can alternatively contact Graham Howell, Secretary to the Corporation, who is Ofcom's consultation champion:

Graham Howell
Ofcom
Riverside House
2a Southwark Bridge Road
London SE1 9HA

Tel: 020 7981 3601

Email Graham.Howell@ofcom.org.uk

Annex 12

Ofcom's consultation principles

A12.1 Ofcom has published the following seven principles that it will follow for each public written consultation:

Before the consultation

A12.2 Where possible, we will hold informal talks with people and organisations before announcing a big consultation to find out whether we are thinking in the right direction. If we do not have enough time to do this, we will hold an open meeting to explain our proposals shortly after announcing the consultation.

During the consultation

A12.3 We will be clear about who we are consulting, why, on what questions and for how long.

A12.4 We will make the consultation document as short and simple as possible with a summary of no more than two pages. We will try to make it as easy as possible to give us a written response. If the consultation is complicated, we may provide a shortened Plain English Guide for smaller organisations or individuals who would otherwise not be able to spare the time to share their views.

A12.5 We will consult for up to 10 weeks depending on the potential impact of our proposals.

A12.6 A person within Ofcom will be in charge of making sure we follow our own guidelines and reach out to the largest number of people and organisations interested in the outcome of our decisions. Ofcom's 'Consultation Champion' will also be the main person to contact with views on the way we run our consultations.

A12.7 If we are not able to follow one of these principles, we will explain why.

After the consultation

A12.8 We think it is important for everyone interested in an issue to see the views of others during a consultation. We would usually publish all the responses we have received on our website. In our statement, we will give reasons for our decisions and will give an account of how the views of those concerned helped shape those decisions.

Annex 13

Consultation response cover sheet

- A13.1 In the interests of transparency and good regulatory practice, we will publish all consultation responses in full on our website, www.ofcom.org.uk.
- A13.2 We have produced a coversheet for responses (see below) and would be very grateful if you could send one with your response (this is incorporated into the online web form if you respond in this way). This will speed up our processing of responses, and help to maintain confidentiality where appropriate.
- A13.3 The quality of consultation can be enhanced by publishing responses before the consultation period closes. In particular, this can help those individuals and organisations with limited resources or familiarity with the issues to respond in a more informed way. Therefore Ofcom would encourage respondents to complete their coversheet in a way that allows Ofcom to publish their responses upon receipt, rather than waiting until the consultation period has ended.
- A13.4 We strongly prefer to receive responses via the online web form which incorporates the coversheet. If you are responding via email, post or fax you can download an electronic copy of this coversheet in Word or RTF format from the 'Consultations' section of our website at www.ofcom.org.uk/consult/.
- A13.5 Please put any parts of your response you consider should be kept confidential in a separate annex to your response and include your reasons why this part of your response should not be published. This can include information such as your personal background and experience. If you want your name, address, other contact details, or job title to remain confidential, please provide them in your cover sheet only, so that we don't have to edit your response.

Cover sheet for response to an Ofcom consultation

BASIC DETAILS

Consultation title: Geographic telephone numbers

To (Ofcom contact): Elizabeth Greenberg

Name of respondent:

Representing (self or organisation/s):

Address (if not received by email):

CONFIDENTIALITY

Please tick below what part of your response you consider is confidential, giving your reasons why

Nothing Name/contact details/job title

Whole response Organisation

Part of the response If there is no separate annex, which parts?

If you want part of your response, your name or your organisation not to be published, can Ofcom still publish a reference to the contents of your response (including, for any confidential parts, a general summary that does not disclose the specific information or enable you to be identified)?

DECLARATION

I confirm that the correspondence supplied with this cover sheet is a formal consultation response that Ofcom can publish. However, in supplying this response, I understand that Ofcom may need to publish all responses, including those which are marked as confidential, in order to meet legal obligations. If I have sent my response by email, Ofcom can disregard any standard e-mail text about not disclosing email contents and attachments.

Ofcom seeks to publish responses on receipt. If your response is non-confidential (in whole or in part), and you would prefer us to publish your response only once the consultation has ended, please tick here.

Name

Signed (if hard copy)