

# Number translation services: Options for the future

An Ofcom consultation

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## Section 1

# Summary

## Introduction

- 1.1 In this consultation document, Ofcom re-examines the regulatory framework for Number Translation Services ('NTS'). The current arrangements for NTS enable calls to 08 and 09 non-geographic telephone numbers to be used by businesses and other organisations to provide an increasingly wide range of telephone services e.g. dial-up pay-as-you-go internet access, telephone banking, tele-voting and business contact services.
- 1.2 In parallel with this review of the NTS regulatory framework, Ofcom has carried out a market review of the NTS call termination market in the UK (the 'NTS Call Termination Market Review'). The proposals as a result of that review will be published separately.
- 1.3 Ofcom estimates that UK consumers spent £1.25 billion on NTS retail calls from fixed lines in 2003. This represents 19% of all retail call revenues made from fixed lines. An additional £202m was paid to Communications Providers (CPs) by NTS service providers (SPs) for the provision of freephone NTS calls, providing an estimate of the total size of the market (excluding revenues earned by mobile CPs for the origination of NTS calls) of £1.46 billion.
- 1.4 Calls to 'basic rate' (0845/0844) numbers account for approximately two-thirds of NTS call minutes and around 44% of NTS revenues for calls from fixed lines. The majority of these calls are data calls made for the purpose of accessing Pay-As-You-Go (PAYG) internet access services. Freephone calls accounted for a further 14% of revenues<sup>1</sup>, 'higher rate' (0870/0871) calls for an additional 15% and premium rate (09) calls for the remaining 28%. Total NTS call volumes fell marginally between 2002 and 2003, partly due to a shift from PAYG to broadband internet access, but premium rate call volumes rose sharply.
- 1.5 NTS calls provide a micro-payment mechanism for a wide variety of value added services, as well as a means of access. With the exception of freephone calls, a significant proportion of NTS retail call revenues is passed on to the SP receiving the call – over a quarter on average for 0845/0844 calls, over a half for 0870/0871 calls and around three-quarters for premium rate calls made from fixed lines<sup>2</sup>.

## The current NTS regime

- 1.6 The current regulatory regime for NTS calls is based on the principle that BT, because of its market power in wholesale call origination, should retain only cost-related charges for originating and retailing NTS calls on behalf of the Communications Provider on whose network the call ends (the Terminating

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<sup>1</sup> In the case of freephone calls, revenues are measured in terms of the payments made by service providers to Terminating Communications Providers.

<sup>2</sup> The information in paragraphs 1.3 to 1.5 has mostly been derived from submissions by OCPs and TCPs in response to a formal information request from Ofcom. The results of Ofcom's analysis are described in Annex 5.

Communications Provider (TCP)), and must pass the remaining revenues over to the TCP. These termination revenues are often sufficient to support revenue sharing with organisations using NTS numbers for inbound contacts.

- 1.7 The existing NTS framework has been extremely successful in terms of the large number of new and innovative value-added telephone services that have been made available to UK consumers as result. However, Ofcom is aware from its pre-consultation contact with both the Industry and consumers that there are growing concerns amongst stakeholders:
- consumers are unsure what the retail prices are for calls to 08 and 09 numbers, and find the 'local rate' and 'national rate' descriptions of 0845 and 0870 numbers in particular to be confusing and potentially misleading. Consumers are also concerned that 08 and 09 numbers appear to be proliferating as more expensive alternatives to geographic telephone numbers (i.e. telephone numbers starting with 01 or 02 that relate to a specific geographic area within the UK), and that the ability for the organisation using the 08 or 09 number to obtain revenue for answering the call creates incentives for callers to be kept on hold unnecessarily; and
  - from the Industry perspective, the link for BT customers between 0845 and 0870 retail call prices and BT's standard local rate and standard national rate respectively has resulted in uncertain and declining revenues for TCPs and SPs. This has given rise to concerns that further reductions in local and national rates could in future undermine the viability of PAYG internet services, and potentially of some other services provided on these number ranges. SPs could respond by migrating to other number ranges, where they could select the call prices charged to BT customers, but this would involve some costs and would be disruptive for consumers.
  - TCP revenue uncertainty has given rise to frequent disputes requiring regulatory intervention in relation to the detailed functioning of the NTS regime. In addition, non-BT originating communications providers (OCPs) such as the cable telephone companies find it difficult to negotiate different interconnection arrangements for NTS calls from those that apply to BT. Finally, From 1 May 2004, BT increased its own charges to other communications providers for completing calls to its own NTS numbers (via a Network Charge Change Notice ('NCCN') known as NCCN 500), raising concerns about the extent to which competition is effective in the provision of NTS call termination services. The issues raised by BT's NCCN 500 charges are considered in the NTS Call Termination Market Review which has been carried out in parallel with Ofcom's overall review of NTS regulation.

### **Pricing and interconnect policy options**

- 1.8 Ofcom has considered five pricing and interconnect policy options in the light of information gathered prior to publication from discussions with stakeholders, market research, international benchmarking and a technical consultancy project. These options are designed primarily to address the interconnect issues which have given rise to a succession of disputes between CPs, and those consumer issues which are related to the pricing of calls and competition between SPs.

1.9 In brief, these policy options are:

- **Option 1 - The status quo.** No change to the current arrangements;
- **Option 2 - Extended retail price competition.** Under this option, BT's retail prices for 0845/0870 calls would no longer be related to BT's retail prices for geographic calls, and SPs in conjunction with TCPs would be able to select retail prices for their services on the BT network, without migrating to other number ranges;
- **Option 3 – No regulated scope for revenue sharing on 0845/0870 numbers.** Under this option, the application of BT's specific NTS call origination obligation would be withdrawn with respect to 0845/0870 calls. This would mean that there would no longer be regulatory underpinning for revenue sharing on the 0845/0870 number ranges. Certain NTS service providers such as Internet Service Providers (ISPs) would be able to continue revenue sharing using other 08 number ranges. However most others would either have to negotiate on a commercial basis for continued revenue sharing on 0845/0870 or would have to move to 09 numbers if they wanted to use numbers subject to NTS regulation;
- **Option 4 – No regulated scope for revenue sharing on 084/087 numbers.** Under this option, NTS regulation would be withdrawn from all 084/087 numbers. 09 services would not be affected, and NTS service providers still requiring NTS-based revenue sharing could migrate their 08 services to the 09 range; and
- **Option 5 – No regulated scope for revenue sharing on any NTS number ranges.** Under this option, the 08 and 09 number ranges would no longer be subject to any NTS regulation. All NTS service providers would need to find alternative mechanisms for billing their customers, or reach commercially negotiated billing agreements with OCPs.

1.10 In the course of the review, Ofcom has also considered a number of other pricing and interconnect policy options, which have not been included in the shortlist for evaluation. These options include:

- the NTS Futures Proposal, as put forward by a number of CPs represented in the NTS Futures Sub-group. The idea behind the proposal was that a single retail price would continue to be applied to each of the 0845 and 0870 calls made by BT customers, but that these prices would be decoupled from BT's local and national retail call prices. The new 0845/0870 charges would be managed by BT and/or Ofcom in a manner designed to provide revenue certainty to TCPs and SPs. This proposal has not been taken forward, primarily because the details of the proposal have not been worked out by the NTS Futures Sub-group, it is not clear how it would be implemented and because Ofcom is concerned that it may not be consistent with the requirements of competition legislation; and
- banning revenue sharing on some or all NTS numbers. This option has not been pursued, primarily because in Ofcom's view, the benefits to consumers of being able to use NTS as a micro-payment mechanism are

significant, and there is insufficient evidence for the view that these benefits are outweighed by unavoidable, detrimental effects.

### **Assessment of pricing and interconnect policy options**

1.11 Ofcom has undertaken a regulatory impact assessment ('RIA') on the proposed pricing and interconnect policy options, using assessment criteria that build on Ofcom's statutory duties as set out in sections 3 and 4 of the Communications Act 2003, including the promotion of competition and furthering the interests of citizen-consumers. Ofcom's preliminary views are:

- Option 1 (the status quo) does not do enough to address consumer and Industry concerns surrounding the current NTS regime;
- Option 2 (extended retail price competition) will address a number of the problems the Industry has with the current NTS regime. It will give TCPs and SPs revenue certainty without the disruption of number migration and it creates scope for additional retail price competition between NTS service providers. This option would involve BT upgrading its billing system to allow increased granularity of retail pricing (i.e. allowing retail prices for NTS calls from the BT network to be set at a finer level than the current 100,000 telephone number block level). Option 2 would ensure the availability of services on NTS numbers, particularly compared to Options 3, 4 and 5, since it provides continued regulatory underpinning for revenue sharing on all current NTS number ranges regardless of the type of service provided. Ofcom considers that Option 2 may exacerbate some of the existing problems that consumers encounter with the NTS regime, and hence that it is particularly important to consider an appropriate package of consumer protection measures under this option; and
- Options 3, 4, and 5 (switching off NTS regulation on 0845/0870, 084/087 and all NTS number ranges) each run the risk of reduced variety and volume of services on NTS numbers in the future (including PAYG internet access) which would ultimately not be in consumers' interest. Ofcom has explored alternative micro payment mechanisms (e.g. premium SMS) that would allow NTS service providers to bill consumers without using NTS, but does not consider that any currently represent completely viable substitutes for NTS. The removal of regulation from various number ranges under these options would also create scope for Industry and consumer confusion whilst calls to these number ranges were (at least initially) unregulated.

### **Additional consumer protection measures**

1.12 A number of the consumer issues identified by Ofcom, such as low price awareness, cannot be effectively addressed simply by changing regulatory policies related to the pricing and interconnection of NTS calls. If such an approach were adopted, Ofcom also believes there would also be a risk of imposing additional burdens on those NTS services that consumers value, as well as those that cause consumer concern. Ofcom has therefore defined, and is seeking comments on a range of targeted consumer protection measures, which could be implemented alongside the chosen pricing and interconnect policy option.

1.13 These additional consumer protection measures include the following:

- Ofcom working with the Advertising Standards Authority (ASA) and the Committee of Advertising Practice (CAP) to produce guidance on the advertising of 084/087 numbers;
- Ofcom working with the Central Office of Information (COI) on the COI's contact centre guidance to government departments to include advice on the appropriate use of NTS numbers;
- the development of a voluntary code of practice aimed at ensuring that OCPs provide better information on NTS call prices to their customers;
- a wider role for the Independent Committee for the Supervision of Standards of Telephone Information Services (ICSTIS) – the premium rate watchdog – in controlling adult content and other higher risk services on 087 numbers e.g. possibly changing the definition of Controlled Premium Rate Services (CPRS) to bring these services within the scope of ICSTIS regulation;
- TCPs to provide better call pricing information to NTS service providers through the development of a voluntary code of practice;
- pre-announcement of call prices at the start of all voice NTS calls and/or a "splash box" or other techniques to provide pricing information for data NTS calls; and
- bringing all revenue sharing services within the scope of ICSTIS regulation.

### **Ofcom's initial view**

1.14 In this document, Ofcom is consulting on its initial views on the future of the NTS regime that:

- Option 2 (extended retail price competition) is Ofcom's preferred solution as it performs best against Ofcom's evaluation criteria (which reflect Ofcom's principal duties under the Act); and
- Option 2 should be combined with a package of appropriate consumer protection measures.

### **Next steps – consultation and implementation**

1.15 In this document, Ofcom has set out the measures that Ofcom considers would be necessary to implement each of the five policy options described in the document. Ofcom has also explored what scope there might be for phased introduction of these policy options. Ofcom welcomes comments from stakeholders on both these points, as well as on all the other consultation questions listed in the document.

1.16 The closing date for responses to this consultation is 7 January 2005. Guidance on how to respond is set out at Section 8. Ofcom is seeking comments from the widest possible range of stakeholders, including consumers, Communications Providers and organisations using NTS numbers to receive inbound calls. Ofcom acknowledges the complexity of the subject matter of this document, and will therefore be publishing a separate 'plain English' summary of this document to facilitate responses from consumers and others who may not have time to read this document in its entirety.

1.17 Following receipt and consideration of responses, Ofcom will set out its decision as to the NTS option to be implemented in a Statement likely to be published in calendar Q2 2005. Ofcom is likely to need to take additional steps

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at that stage, including undertaking further consultation, to implement the legal framework for the chosen policy option.



## Section 2

# Introduction

- 2.1 This document is the first formal stage in Ofcom's re-examination of the existing regulatory framework for NTS calls in the UK.

### What is NTS?

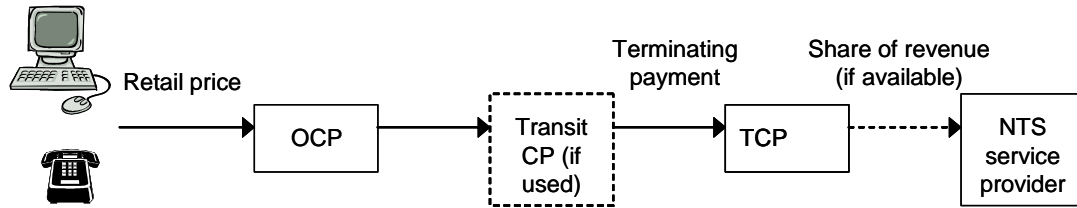
- 2.2 NTS calls are calls to numbers identified in the National Telephone Numbering Plan<sup>3</sup> ('the Plan') as Special Service numbers (broadly, numbers that start with 08 or 09). In addition, NTS includes calls to the legacy 0500 Freephone numbers, which, whilst still in use, are not listed in the Plan as they are no longer available for new allocations. Calls to 0844 04 numbers for Surftime internet access services and calls to 0808 99 numbers for FRIACO are not included.
- 2.3 NTS numbers are examples of non-geographic numbers in that the number dialled does not relate to a specific geographic location, but instead relates to a particular service. At a technical level, the NTS number dialled by a caller is 'translated' by the network to a geographic number to deliver the call to its destination.
- 2.4 For a given NTS call, there can be several different Communications Providers (CPs) involved in conveying the call from the caller to the organisation or individual receiving the call. This includes an Originating Communications Provider (OCP), on whose network the call commences, and a Terminating Communications Provider (TCP), on whose network the NTS number resides. The OCP and the TCP may be the same for some calls. There may also be a CP carrying the call between the OCP and the TCP (this is known as a 'transit' service).
- 2.5 A key feature of NTS is that the regulatory framework makes revenue sharing possible between the TCP and the organisation or individual receiving the call. In this way, the regulatory regime supports the use of NTS as a micro-payment mechanism for the various services which can be accessed via 08 and 09 numbers. The caller pays the OCP for the call. The OCP passes on a terminating payment to the TCP, who is then able (subject to commercial viability) to share some of this revenue with the individual or organisation using the NTS number (known as an NTS Service Provider (NTS SP)). These relationships are shown diagrammatically in Figure 1<sup>4</sup>.

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<sup>3</sup> The Plan is a document that Ofcom is required to publish under Section 56 of the Communications Act 2003 setting out the telephone numbers made available for allocation by Ofcom and the most recent version of which was published on 6 September 2004.

<sup>4</sup> The payment flows between OCP and TCP (or between transit CP and TCP) can be categorised in two ways, namely: the sale of origination of NTS calls by OCPs to TCPs; or equivalently the sale of termination of NTS calls by TCPs to OCPs. For the remainder of this document these payment flows will be referred to as termination payments.

**Figure 1: Parties involved in an NTS call**



2.6 The revenue share available to the SP depends on the retail price of the call, which in turn varies by number range. The NTS ranges are designated for use as follows:

- 080 (freephone): usually free to caller;
- 0844: up to and including 5p per minute or per call for BT customers;
- 0845: standard local call price for BT customers before discounts and call packages;
- 0870: standard national call price for BT customers before discounts and call packages;
- 0871: up to and including 10p per minute or per call for BT customers; and
- 09: generally over 10p per minute or per call for BT customers (also commonly known as 'premium rate services').

2.7 NTS numbers are used by organisations and individuals to provide access to a very wide range of services from dial-up PAYG internet access to financial services, road traffic advice and tele-voting on TV programmes. Ofcom does not have any reliable quantitative data on the types of services using different NTS number ranges, but believes that the general picture is as follows:

- Freephone numbers (0800 and 0808) are principally used to access private sector voice services such as sales lines and helplines; and telephony services provided by two stage indirect access service providers;
- 0844 and 0845 numbers are used extensively to access PAYG internet services (predominantly using 0845 numbers), and also support a wide range of other services, including pre- and post-sales enquiry lines, public sector services, transaction services and information services;
- 0870 and 0871 numbers are principally used to provide access to pre- and post-sales enquiry lines, some public sector services and services such as the international telephony services provided by resellers. Recent evidence also indicates that they are now being used to support some sexual entertainment services (SES); and
- premium rate (09) numbers are used mainly to access SES services, chatlines, voting services and some post-sales services such as technical support. 09 call volumes have been growing rapidly - as outlined in Figure 3 these grew by 31% between 2002 and 2003. The recent growth in call volumes has been driven principally by the increasing popularity of TV programmes in which viewers are invited to express a preference by calling a premium rate number.

## Revenues and call volumes<sup>5</sup>

- 2.8 Ofcom estimates that UK consumers spent £1.25 billion on NTS retail calls from fixed lines in 2003. This represents 19% of all retail call revenues made from fixed lines. An additional £202m was paid to TCPs by NTS SPs for the provision of freephone NTS calls, providing an estimate of the total size of the market (excluding revenues earned by mobile CPs for the origination of NTS calls) of £1.46 billion.
- 2.9 Ofcom estimates that a total of 57,466 million call minutes to NTS numbers were originated from fixed lines in 2003. This represents 17% of all retail call volumes from fixed lines. Additionally, Ofcom estimates that a further 2,700 million call minutes to NTS numbers were made by mobile subscribers in 2003. This represents 6% of all call minutes made by mobile subscribers.
- 2.10 The breakdown of minutes for calls from fixed lines is shown in Figure 3. Basic rate calls to 084 numbers are by far the largest call category, accounting for around two-thirds of all NTS calls. Ofcom believes that the majority of these calls are data calls to ISPs, although precise information on the voice/data split is not available. The decline in 084 call volumes between 2002 and 2003 is likely to reflect the reduced popularity of PAYG internet access services, as some consumers switch to broadband. Over the same period, there was a modest increase in the volume of calls to 0870 and 0871 numbers, and a substantial growth in premium rate call volumes.

**Figure 2: Breakdown of retail NTS call revenues from fixed lines, 2003**

(£m)	2003
Freephone (0800, 0808)	202
Special Services basic rate (0844, 0845)	633
Special services higher rate (0870, 0871)	216
Premium Rate (09)	404
<b>Total</b>	<b>1,455</b>

**Figure 3: Breakdown of NTS call volumes from fixed lines, 2002 and 2003**

(million minutes)	2002	2003	% change
Freephone (0800, 0808)	17,339	14,504	-16%
Special services basic rate (0844, 0845)	39,040	37,927	-3%
Special services higher rate (0870, 0871)	3,923	4,265	9%
Premium Rate (09)	587	770	31%
<b>Total</b>	<b>60,890</b>	<b>57,466</b>	<b>-6%</b>

<sup>5</sup> The information in this section has mostly been derived from submissions by OCPs and TCPs in response to a formal information request from Ofcom. The results of Ofcom's analysis are described in Annex 5

## Prices and revenue shares

2.11 Figure 4 shows the weighted average retail charges for NTS calls from fixed lines in 2002/03 and 2003/04. Average retail prices for 084 and 087 calls from fixed lines declined slightly in 2003/04, whilst the average charge for premium rate calls from fixed lines fell by more than 10ppm. This is likely to reflect an increased usage of premium rate numbers to offer less expensive services, and may also reflect changes in time-of-day usage patterns.

**Figure 4: Average retail charges per minute for NTS calls from fixed networks, 2002/03 and 2003/04**

(Pence per minute)	2002/03	2003/04
Freephone: 0800 & 0808	0.0	0.0
Special services basic rate (0844 & 0845)	1.9	1.7
Special services higher rate (0870 & 0871)	5.5	5.1
Premium Rate (09)	64.1	52.5
Total	2.2	2.2

2.12 Information on the scale of revenue sharing with the NTS SP on the various NTS number ranges is shown in Figure 5. The proportion of revenue passed on to SPs in 2003 was a little over a third on 084 calls, just over a half on 087 calls and around three quarters on premium rate calls. The most striking feature of the table is the sharp increase in the revenue share on 087 numbers between 2002 and 2003.

**Figure 5: Revenue sharing on NTS number ranges, 2002 and 2003<sup>6</sup>**

Number range	Average retail price (ppm)		Average revenue share with the NTS SP (ppm)		Average % of revenue shared with NTS SP		Change in revenue shared with NTS SP 2002 to 2003
	2002	2003	2002	2003	2002	2003	
freephone	n/a	n/a	n/a	n/a	n/a	n/a	n/a
0844, 0845	1.9	1.7	0.5	0.5	27%	28%	0%
0870, 0871	5.5	5.1	1.7	2.7	32%	53%	58%
Premium rate services (09)	64.1	52.5	46.7	38.8	73%	74%	-17%

<sup>6</sup> It should be noted that the average retail price information in this table relates only to calls originated from fixed networks, whilst the data on average revenue shares with NTS SPs reflects traffic handed over by TCPs that was originated on both fixed and mobile networks. As only about 5% of all NTS volumes are originated on mobile networks, the percentage figures in this table remain a reasonable approximation.

## The current regulatory regime

- 2.13 Current regulatory policy for NTS calls was established in 1996 with the aim of encouraging the growth in the provision of access to new and cheaper, value added services via the telephone. The policy is based on the principle that BT, because of its Significant Market Power (SMP) in wholesale call origination, should retain only cost-related charges for originating and retailing NTS calls on behalf of the TCP, and must pass the remaining revenues over to the TCP on whose network the call ends. These termination revenues are often sufficient to support revenue sharing with organisations using NTS numbers for inbound calls.
- 2.14 The key elements of this policy were retained following the introduction of a new regulatory regime for electronic communications networks and services on 25 July, 2003, based on five new EU Communications Directives. Under the new regime, Oftel (Ofcom's predecessor) carried out a series of market reviews, one of which covered the wholesale market for call origination<sup>7</sup>. As a result of this review ('the Call Origination Market Review'), the Director General of Telecommunications (the 'Director') concluded that BT has SMP in the wholesale call origination market and, as a remedy, imposed an NTS call origination condition on BT ('the BT NTS Call Origination Condition').
- 2.15 A key feature of the BT NTS Call Origination Condition is an obligation on BT both to originate and, crucially, to retail calls to NTS numbers on behalf of TCPs. This creates a mechanism for TCPs to collect micro payments from consumers and to share these payments with NTS SPs (who use NTS numbers to provide content or other services) without TCPs or NTS SPs having to bill consumers directly themselves. BT is only permitted to make cost-related charges for originating and retailing NTS calls and must pass the remaining revenues over to the TCP.
- 2.16 Under the Plan, the various NTS number ranges have different designations for use. For example, the 080 range is designated as a range where no charges are made to customers unless those charges are notified to the customer at the beginning of the call. In selecting a particular NTS number block, a TCP takes on an obligation to use the numbers in accordance with the designations given in the Plan. In this sense, the TCP is restricted in its use of NTS numbers.
- 2.17 Charges for the termination of NTS calls are not currently subject to regulation<sup>8</sup>.

## Scope of the review

- 2.18 Ofcom's re-examination of the NTS framework includes all NTS services, whether provided on 08 or 09 numbers (or the legacy ranges such as 0500), including both voice and data services.

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<sup>7</sup> Oftel published its *Review of the fixed narrowband wholesale exchange line, call origination, conveyance and transit markets (Explanatory Statement and Notification)* on 28 November 2003. The Call Origination Market Review is available on Ofcom's web site at: [http://www.ofcom.org.uk/legacy\\_regulators/oftel/narrowband\\_mkt\\_rvw/fixednarrowbandstatement.pdf](http://www.ofcom.org.uk/legacy_regulators/oftel/narrowband_mkt_rvw/fixednarrowbandstatement.pdf)

<sup>8</sup> NTS call termination is current the subject of the NTS Call Termination Market Review.

- 2.19 Ofcom's work has not included explicit consideration of the arrangements for the origination of NTS calls from the Kingston Communications (Hull) PLC ('KCL') network, separate from consideration of NTS origination in general. This is because NTS specific regulation for Kingston was not deemed to be appropriate in the Call Origination Market Review.
- 2.20 The links between Ofcom's re-examination of the NTS framework and other Ofcom work are set out in Annex 12. In particular, it should be noted that in association with this review, Ofcom has carried out a market review of the NTS call termination market (the 'NTS Call Termination Market Review'). The results of that market review are likely to be published around the same time as this consultation document.

### **Pre-consultation activity**

- 2.21 On 5 July 2004, Ofcom published its *Notification of Ofcom's consideration of a network access question: re-examination of the NTS framework* ('the July 2004 Notification') which is available on Ofcom's web site at: [http://www.ofcom.org.uk/ind\\_groups/ind\\_groups/telecommunications/nts\\_focus/notifications/net\\_access?a=87101](http://www.ofcom.org.uk/ind_groups/ind_groups/telecommunications/nts_focus/notifications/net_access?a=87101). Ofcom is required under section 105 of the Act to publish such a notification when it proposes to consider a network access question, and when, in determining that question, Ofcom wishes to consider making changes to certain regulatory obligations. The purpose of the July 2004 Notification was to bring Ofcom's work to the attention of stakeholders most likely to be affected by Ofcom's actions.
- 2.22 In addition to the July 2004 Notification, Ofcom has taken a number of other steps to ensure that stakeholders' preliminary views were able to shape Ofcom's policy development, and that as much evidence as possible is available during the consultation period to enable stakeholders to submit their comments in light of this information.
- 2.23 Further details of Ofcom's pre-consultation engagement with stakeholders are set out at Annex 14.
- 2.24 In relation to evidence gathering, Ofcom undertook several strands of work prior to the publication of this document. During the first half of 2004, Ofcom gathered information from a range of countries on the interconnection and retail pricing arrangements for non-geographic calls, including the arrangements for dial-up internet access. The purpose of this work was to inform the development of options for the UK market. The results of this international benchmarking are summarised at Annex 8.
- 2.25 Ofcom also wanted to examine consumer perceptions regarding proliferation of NTS numbers, in particular the apparent growing replacement by businesses of geographic numbers with NTS numbers. With this in mind, Ofcom has analysed the type and size of businesses that use NTS numbers (see Annex 6). Ofcom is continuing to look into whether the same data sets can be used to assess whether there has in fact been growth over the last few years in the overall use of NTS numbers for inbound contact. If this proves possible, Ofcom will make the results of this analysis available to stakeholders.
- 2.26 In July/August 2004, Ofcom also carried out two pieces of market research related to NTS calls. The first piece of research explored residential consumer opinion of 0845 and 0870 numbers and awareness of pricing, building on

previous related research undertaken by Oftel in May 2002 and August 2003. A summary of the results of this research are set out at Annex 7. Ofcom also carried out research into business use of NTS numbers which looked at the type of NTS numbers used, the reasons they were used, the extent of revenue sharing and the extent of each business's awareness of the cost to callers of dialling one of its NTS numbers. The results of this research are set out at Annex 7.

- 2.27 During development of NTS policy options prior to the publication of this document, Ofcom became aware that some of the evolving policy options would involve upgrades to CPs' billing capabilities – these implications are described further in Sections 5 and 7. Various CPs have previously informed Ofcom that such upgrades might be expensive and/or impractical. Ofcom therefore commissioned independent technical experts InterConnect Communications ('InterConnect') to look into the feasibility, costs and timescales for such upgrades. A summary of InterConnect's findings is set out at Annex 13.
- 2.28 Finally, Ofcom issued a formal information request to a number of OCPs and TCPs, in order to gather data on NTS call volumes and revenue flows, at both the retail and wholesale level. The resulting information is summarised at Annex 5, and has been used in carrying out the NTS Call Termination Market Review.

## Section 3

# Issues and objectives

## Introduction

- 3.1 The primary purpose of this section is to identify and discuss the issues that have arisen in relation to the current regulatory regime for NTS services. The description of the issues takes into account pre-consultation input from stakeholders (see details in Annex 14).
- 3.2 The issues are considered under three broad headings, namely consumer issues, interconnect issues and service provider issues. Ofcom acknowledges that these three categories are not necessarily mutually exclusive.
- 3.3 This section also includes a discussion of the policy objectives, which Ofcom wishes to pursue in the development and evaluation of policy options for the future of NTS regulation.

## Consumer issues

- 3.4 A number of consumer issues have arisen in relation to the existing NTS regime and the current direction in which it is developing, including the following:
  - low consumer awareness of NTS call prices;
  - perceptions that some types of NTS call are over-priced;
  - concern over call centre waiting times, perceived to be exacerbated by NTS revenue sharing arrangements which can appear to give call centre operators an incentive to keep callers on hold;
  - potentially misleading advertising, which suggests that calls will be charged at local or national rates when that is not necessarily the case;
  - concern over the recent growth of adult services and other higher risk services on 087 numbers, bypassing ICSTIS regulation; and
  - internet dialler and other types of fraud on 09 numbers.

These issues are considered in turn below.

### Limited consumer awareness of prices

- 3.5 In July/August 2004, Ofcom undertook research to explore residential consumers' awareness of the price of calls to 084 and 087 numbers, and to compare awareness of the price of calls to these numbers with awareness of the price of calls to geographic numbers. The results of this research are summarised in Annex 7.
- 3.6 The research found that:
  - the vast majority of adults either do not know how much it costs to call 084 and 087 numbers or over estimate the cost: unprompted awareness of usual price range for calls to 0844, 0845, 0870 and 0871 numbers was found to be 5%, 15%, 21% and 9% respectively;
  - price awareness for calls to geographic numbers is much greater, at 54% for local calls and 41% for national calls;



- there is a very strong tendency for customers to over-estimate the cost of calling 0845 and 0870 numbers: average estimates of the cost of a daytime call to 0845 and 0870 numbers were 26 pence and 30 pence per minute respectively (against true costs of around 4 pence and 8 pence); and
  - the price perceptions associated with the terms 'local rate' and 'national rate' are similar to those for local and national geographic calls, and bear little resemblance to those for 0845 and 0870 calls.
- 3.7 Previous research, carried out by Oftel between May 2002 and August 2003, has shown that awareness of the correct cost of calling 09 numbers is higher than for 0845/0870 numbers, at 40%. Qualitative research into 09 numbers in 2002 also indicated that overall, there was a sense that 08 calls are cheaper and somehow feel 'safer' than 09 calls.
- 3.8 As a result of this research, Ofcom has particular concern about the low levels of awareness amongst consumers about what they can expect to pay for calls to 084 and 087 numbers. This awareness is lower than for 09 calls, where there seems to be a degree of consumer appreciation of the need to exercise care when dialling 09 numbers.

### **Some NTS calls are perceived as being overpriced**

- 3.9 It is clear that many consumers regard certain types of NTS call, notably those to 087 and to a lesser degree 084 numbers, as being over-priced. This view was reflected in the results of Ofcom's residential consumer research, which found that 46% and 55% agreed that calls to 0845 and 0870 numbers were too expensive, respectively. When interpreting these findings, it should be borne in mind that consumers tend to over-estimate the true cost of 0845 and 0870 calls, but the perception remains.
- 3.10 There has been an increasing amount of concern expressed by consumers and consumer groups over the apparent growth in use of NTS numbers, in preference to normal geographic numbers. These concerns are articulated, for example, on several public websites, and centre on:
- the fact that NTS calls tend to be more expensive than their geographic counterparts even though there can appear to be no added value over and above a geographic call that would warrant the higher call prices; and
  - the belief that revenue sharing should not be permitted.
- 3.11 The significance of this issue varies by number range. On 09 numbers, the revenue share tends to be much greater, but calls costing more than 10p per minute are covered by ICSTIS regulation and consumers, as noted above, are typically more aware that calls to 09 numbers will tend to be expensive. Consumer concern about proliferation of NTS numbers is greatest in relation to 087 numbers, where the call price is still quite high in relation to geographic call charges and consumer awareness of likely call prices is comparatively low. The problem is less acute on 084 numbers as, although consumer awareness of likely call prices is low, the absolute price differential between a geographic and 084 call is also comparatively small.
- 3.12 Any tendency towards increased use of 087 numbers rather than geographic numbers will also have an impact on users of text phones such as the deaf or

hard of hearing. This is because 087 calls are excluded from OCPs' text phone rebates, which take account of the extra time taken for text and text relay conversations compared with voice. The reason given for the exclusion of 087 calls is that, because these are revenue sharing calls, applying the rebate could lead to the OCP losing money whilst the TCP (and ultimately the NTS service provider) receives its full share. 084 calls are included in the text phone rebate at the moment because a lower percentage of the call revenue is available for revenue sharing on this range.

3.13 Consumer concerns are especially strong where the caller has little choice over the number being called. This is likely to be the case for a consumer calling a government department such as the Department for Work and Pensions (which uses 0845 numbers for some of its enquiry lines), or a public sector organisation such as the DVLA (which uses 0870 for its main enquiry numbers<sup>9</sup>). It may be the case for patients calling their GPs, a growing number of whom use non-geographic numbers. And it may be the case for some of the calls made to commercial businesses, either because they enjoy a strong competitive position in the area within which they operate, or because the customer is effectively tied in to a particular supplier because of a prior purchasing decision. Examples of this sort of service may include:

- after-sales service calls e.g. to report a fault on a major purchase such as a washing machine or item of furniture; and
- calls to telephone banking services.

3.14 The point here is that, although the consumer may have a choice about where to purchase a washing machine, or where to bank, his or her ability to switch supplier may be very limited once the initial purchasing decision has been made, because of the costs or inconvenience involved in doing so.

3.15 It is extremely difficult to gauge the scale of this problem with any precision, because the organisations using NTS numbers operate in a very wide variety of downstream markets, with highly variable competitive conditions. The same organisation may also use NTS numbers for both sales calls, where competitive pressures may be comparatively strong, and after-sales support, where the competitive pressures are likely to be much weaker. In addition, reliable statistics on, for example, the number of GPs using NTS numbers are not available.

3.16 This issue is discussed in more detail in Section 4 and in the NTS Call Termination Market Review.

### **Call centre waiting times**

3.17 The concern here is closely related to the more general issue, discussed above, surrounding the growing replacement of geographic numbers with NTS numbers. It centres on the fact that the existence of revenue-sharing arrangements provides an apparent financial incentive for call centres to extend the duration of incoming calls, and the view that this acts to the detriment of consumers. Call centres usually use 084 and 087 numbers. Although it is also possible for call centres to use 09 numbers, the comparatively high consumer

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<sup>9</sup> The DVLA uses a geographic number for its minicom service for hearing impaired persons.

awareness of the possible expense of 09 numbers, coupled with the fact that calls charged over 10p per minute attract ICSTIS regulation mean that the use of 09 numbers by call centres is relatively rare.

3.18 No firm evidence is available on the extent to which revenue sharing has in practice caused an increase in call centre holding times. Whether the revenue share provides a sufficient incentive to reduce service levels in this manner will depend on a variety of factors, including:

- the size of the revenue share relative to other sources of revenue;
- the degree to which the consumer has a choice of supplier; and
- the ethos of the organisation running the call centre.

3.19 Prior to issuing this consultation document, Ofcom has discussed this point with stakeholders representing businesses using NTS numbers for call centres. These stakeholders have emphasised that in their view long call waiting times represent poor customer service, and that most businesses have a sound commercial incentive to keep waiting times to a minimum.

3.20 As noted in Section 2, the average revenue share available to an NTS SP using an 0845 or 0870 number is, respectively, 0.5p or 2.7p per minute. Ofcom suspects that revenue shares on this scale are unlikely to be sufficiently attractive to encourage service providers to artificially extend call holding times. This is partly because calls are unlikely to generate significant revenue in relation to the costs of operating call centres to make this worthwhile and also because of the potential damage to customer perception of extended call holding times.

*Question 1: In relation to call centre waiting times, Ofcom would welcome stakeholders' views, supported by evidence if available, as to whether the revenue share available on NTS numbers provides sufficient incentive to encourage NTS Service Providers to artificially extend call durations or indeed whether this has actually occurred?*

### **Misleading advertising**

3.21 Calls to 0845 numbers (and more rarely 0844 numbers) are sometimes advertised as being charged at 'local rate' or advertised with brands such "lo-call" that imply that calls are charged at local rates. Calls to 0870 numbers (and more rarely 0871 numbers) are sometimes advertised as being charged at the 'national rate'. In practice, however, there is an increasing likelihood that the charges for calls to these NTS numbers will exceed the equivalent geographic call charges.

3.22 On the BT network, this may be because:

- some of the discounts available on geographic calls are not available on 0845 and 0870 calls;
- most residential customers no longer pay BT's standard rates for local and national geographic calls, having moved on to one of the BT Together option packages; and/or
- the prices for 0844 and 0871 calls may be above the standard geographic rates for local and national calls (though still within the 5p

per minute or per call and 10p per minute or per call ceilings designated in the Plan for BT customers).

- 3.23 In addition, advertisements may fail to indicate that, where calls originate on networks other than BT's, the charges may not be linked in any way to the standard rates for local and national geographic calls, either of BT or of the CP concerned. The link to standard geographic call prices does not apply to other networks (the reasoning for which is explained in Annex 9) and, as shown in Annex 5, charges for NTS calls made by non-BT OCPs may be significantly higher than the corresponding geographic rates.

### **Adult services and other higher risk services on 087 numbers**

- 3.24 Adult services have traditionally been accessed through 0908 and 0909 numbers, and charged at premium rates of up to £1.50 per minute. As such, they have been subject to ICSTIS regulation, which requires, for example, the cost of the call to be clearly stated on any advertisements. Over the past year or so, however, a growing (though still small) number of adult services have been appearing on 0870 and 0871 numbers, calls to which are designated as no more than 10p per minute or per call for BT customers.
- 3.25 There are other services of concern appearing on 087 numbers as well. These services whilst not strictly adult services also generate public concern and higher than normal potential for consumer harm. Because the retail prices for these adult and other higher risk services fall outside of the definition of Controlled Premium Rate Services, they are not covered by ICSTIS regulation.

### **Internet diallers and other types of 09 fraud**

- 3.26 Fraud is a recurring problem on 09 numbers. Recently there have been well-publicised cases of internet dialler fraud, where a consumer unwittingly downloads a software dialler, which generates calls to premium rate numbers, often without the knowledge of the consumer. Fraud on 09 numbers has proved very difficult to prevent because perpetrators are able to secure their revenue shares and disappear before action can be taken against them.
- 3.27 These problems are being addressed through a separate Ofcom review into arrangements for the regulation of premium rate services (see Annex 12) and are not considered to be within the scope of this consultation.

### **Interconnect issues**

- 3.28 As indicated in Annex 4 the interconnect arrangements for NTS calls are unusually complex and are perceived by CPs to have a number of problems. These are at least in part because of the nature of the current regulatory regime. The interconnect issues are:
- for TCPs, uncertainty over the revenues they will receive for terminating 0845 and 0870 calls. Although there can also be some revenue uncertainty for 0844, 0871 and 09 calls, this is at a much lower level and does not currently appear to be a significant Industry problem;
  - for OCPs other than BT, concern over their lack of control over the amount they pay over to the TCPs for the termination of 08 and 09 NTS calls;

- inconsistencies in the current approach to transit charges, with the OCP paying transit charges on 0844 and 0871 calls, and the TCP paying on all other types of NTS calls; and
- concerns expressed by other CPs over the recent increase in BT's charges for terminating calls from other CPs to some BT-hosted NTS services, through the introduction of BT's NCCN 500 charges.

These issues are considered in turn below.

### **Revenue uncertainty for TCPs on 0845 and 0870 calls**

3.29 TCPs other than BT face revenue uncertainty in relation to 0845 and 0870 calls, whether the calls originate on BT's network or that of another CP.

3.30 For 0845 and 0870 calls originating on BT's network, the amount paid to the TCP is effectively a residual amount, obtained by deducting BT's regulated charges for conveyance and retailing from the retail price of the call<sup>10</sup>. BT's retail charges for 0845 and 0870 calls are driven by:

- its standard retail charges for local and national geographic calls, which are subject to regulation through a charge control for residential calls<sup>11</sup> and are influenced by competitive conditions in the broader market for geographic calls; and
- any discounts BT chooses to apply to these call types, which are at its commercial discretion (provided the discounts are applicable).

Thus TCPs other than BT are unable to exercise any effective control or influence over the revenues they receive for call termination if they use 0845 or 0870 numbers.

3.31 The terminating revenue uncertainty for TCPs extends to 0845 and 0870 calls originating on networks other than BT's, because of BT's position as a prominent transit provider. In these circumstances, the current practice is for BT to collect its standard termination charge from the OCP and to pay the same amount to the TCP. BT charges either the OCP or the TCP for transit depending on the NTS number range (see paragraph 3.53).

3.32 The commercial significance of this revenue uncertainty depends on several factors, including:

- the frequency and extent to which BT's standard payments for 0845 and 0870 call termination have changed in practice, or might be expected to do so in future; and

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<sup>10</sup> BT's conveyance charges along with its charges for transit and call origination are regulated under SMP condition AA4 (Charge Control) set out in Schedule 1 to the Notification in the Call Origination Market Review ('the Wholesale Charge Control'). BT's charges for the retailing of NTS calls are regulated by means of the NTS Retail Uplift. The NTS Retail Uplift was last set out in the amended direction of BT's Retail Uplift Charge published by the Director on 22 July 2003 ('the NTS Retail Uplift'). A copy is available at Ofcom's website: <http://www.ofcom.org.uk/static/archive/oftel/publications/licensing/2003/nts0703.htm>. Ofcom is currently consulting on the NTS Retail Uplift Charge, see Annex 12 for details.

<sup>11</sup> The charge control for certain retail services is set out in SMP Condition D1 of the 'Review of Fixed Narrowband Retail Services Markets' published by the Director on 28 November 2003 ('the Retail Charge Control')

- the ability of TCPs to take steps to reduce the uncertainty.
- 3.33 On the first point, Figure 25 and Figure 26 in Annex 5 show that BT's standard termination payments have altered in each of the past 6 years and that there has been a general downward trend (though on occasions there have been increases for some components). For ISPs in particular the July 2003 reduction in evening calls rates by 50% was particularly significant since this rate applies to a significant proportion of their traffic. These reductions will have had a significant impact on the call termination revenues of TCPs.
- 3.34 TCPs could have responded to the uncertainty problem by migrating the service providers who currently use 0845/0870 numbers onto other number ranges, most obviously the 0844/0871 ranges. This would have enabled the TCPs to regain control over the retail charges for calls originating on the BT network, and thereby overcome the problem of terminating revenue uncertainty. For the past five years, since the introduction of the 0844 and 0871 ranges in 1999, the regulatory response to the uncertainty issue has been to encourage precisely this sort of migration.
- 3.35 In practice, however, the extent of use of the 0844/0871 ranges has been very limited, both for migration of existing 0845/0870 services and for launching new services. This reflects the reluctance of many service providers to change their numbers, and TCP concerns that they would lose business if they sought to enforce number migration, against the wishes of their service providers. Migration concerns do not apply to new services but again there seems to be a reluctance to use the 0844 and 0871 number ranges. There seems to be three factors behind this:
- NTS Service Providers believe that the local/national rate price linkage of the 0845/0870 ranges is valuable and that it helps encourage consumers to call 0845/0870 numbers. NTS Service Providers are therefore reluctant to use the 0844/0871 ranges;
  - there is a perception amongst NTS Service Providers that the 0844 and 0871 ranges are less well known by consumers and may be mistaken for premium rate numbers thereby discouraging consumers from calling these numbers; and
  - some CPs and NTS Service Providers are reluctant to use the 0844/0871 number ranges because of a belief that these numbers cannot be accessed from some CPs' networks.
- 3.36 Ofcom examined the issues surrounding the migration of NTS services, in particular dial-up internet access services, in Ofcom's April 2004 document *Calls to 0845 and 0870 numbers: review of retail price and numbering arrangements*<sup>12</sup>. In that document, Ofcom came to the conclusion that migration of dial-up ISP customers was feasible. However Ofcom recognises that the policy of promoting migration has not achieved the desired objective, and that it is now appropriate to consider other options.
- 3.37 For calls originating on networks other than BT's, the TCPs could also have attempted to respond to the revenue uncertainty issue by interconnecting directly with OCPs, or by using a transit service other than BT's. In these circumstances, the termination payments would be a matter for commercial negotiation between the two CPs, and the TCPs would be able to re-establish

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<sup>12</sup> A copy of this document is available at Ofcom's website

certainty over their revenues. This would only be a partial solution to the problem, as it would not deal with the majority of calls, which originate on BT's network, but it would help.

- 3.38 There is little evidence that TCPs have sought to interconnect directly with more OCPs, or to use transit services other than BT's at a level that could end the uncertainty problem. The incentive for direct interconnection will presumably have been limited by the fact that the OCPs have been very keen to reduce the amount they pay for the termination of 0845 and 0870 calls (see Annex 5). Commercial negotiations may therefore have resulted in terminating revenues that were more certain, but lower in absolute terms, than if BT had continued in the transit role.
- 3.39 As for the use of alternative transit services other than BT's, it may be that no other transit providers were able to compete on a significant basis with BT's prices, which are regulated by the Wholesale Charge Control. In any event, it would appear that the difficulties experienced by the TCPs as a result of the uncertainty over their 0845/0870 termination revenues were not so acute as to force them into bypassing BT's network where that would have been feasible.

#### **OCPs' lack of control over payments for call termination**

- 3.40 OCPs other than BT hand most of their NTS traffic on to BT, for termination on the BT network or for transiting to other CPs. A number of these OCPs argue that they have very little control or influence over the amounts they pay to BT for termination/transit, and this operates to their detriment.
- 3.41 At a more detailed level, the situation facing the OCPs varies according to the type of traffic and its destination. For calls which terminate on the BT network, BT has until recently charged the same amount for call termination as it would pay out to another TCP, for terminating a similar call on the latter's network. This arrangement applied to all 084, 087 and 09 calls.
- 3.42 BT has recently departed from this reciprocal charging arrangement by introducing its NCCN 500 charges for the termination of 0820, 0845 and 0870 calls (as well as calls to the legacy 0345 and 0990 ranges). The issues raised by this departure are discussed in paragraph 3.49 below. But even under the reciprocal arrangements, which continue to apply to other 084, 087 and 09 calls, it will be apparent that the OCP plays no part in determining the amount to be paid to BT for call termination.
- 3.43 Where the OCP hands the call over to BT for onward transmission to another network, the OCP will again pay BT BT's standard termination charge for the relevant type of traffic, and BT will pass on this amount in its entirety, to the TCP. If it is an 0844 or an 0871 call, the originator will also pay to BT BT's regulated charge for transit; for other types of NTS call, the transit charge will be paid by the TCP. Whatever the NTS call type, the OCP will again play no part in setting the amount paid to BT for termination or transit.
- 3.44 OCPs have stated that they regard this situation as unfair. Their argument is that BT's standard termination payments/charges reflect the fact that BT's charges for call origination are regulated subject to the Wholesale Charge Control, by virtue of BT's SMP in the wholesale call origination market. Under current arrangements, the argument runs, other OCPs are forced to:

- either accept similarly low payments for call origination, even though their costs may be higher than BT's, or
- to raise their retail prices for NTS calls, which could place them at a competitive disadvantage vis-à-vis BT in the retail market.

3.45 Ofcom does not necessarily accept this argument. The position faced by the OCPs is largely the result of the NTS Call Origination Condition imposed on BT, under which BT's charges for NTS call origination are regulated on the basis of cost. Because the charges of the SMP supplier are limited to cost, this almost inevitably puts competing OCPs in a position where they have to either match BT's call origination charges or increase the retail prices paid by their customers.

3.46 Theoretical ways in which the situation of the non-SMP OCPs might be improved include:

- requiring BT to accept less for terminating calls that originate on other networks than it receives for calls that originate on its own network (assuming this were possible);
- amending the obligation on BT to provide NTS call origination (assuming this were possible);
- encouraging originator specific termination payments for calls which transit through the BT network (assuming this were possible); and/or
- encouraging more direct interconnection between the networks of the non-SMP OCPs and TCPs other than BT.

3.47 Ofcom does not believe that there would any justification for the first of these options, because the costs incurred by BT in terminating calls that originate on other networks are unlikely to be any lower than the costs of terminating calls that originate on its own network. (The question of whether Ofcom has any basis for regulating BT's termination charges is considered in the NTS Call Termination Market Review.) As for the second option, the rationale for the BT NTS Call Origination Condition was clearly set out at the time the condition was introduced<sup>13</sup> and Ofcom does not consider that conditions in the wholesale market for call origination have changed sufficiently to warrant a further review of that market at the present time.

3.48 In Ofcom's view, the third and fourth of the above options could be more fruitful. For calls transited through the BT network, OCPs and TCPs already have the option of reaching agreements directly with each other on the amounts to be paid for call termination, rather than cascading a standard payment through BT. They also have the option of directly interconnecting their networks, to achieve the same end. Ofcom recognises that the commercial incentives for TCPs to establish direct commercial relationships with non-SMP OCPs for the handling of NTS calls may have been weakened indirectly by the existence of the BT NTS Call Origination Condition. But Ofcom does not believe that this merits the removal or modification of the Condition, and nor does it consider the position of the non-SMP OCPs to be powerless, as they are under no regulatory obligation to deliver NTS traffic to the TCPs. Ofcom has stated in its Guidelines

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<sup>13</sup> See Chapter 8 of the Call Origination Market Review, a copy is available at Ofcom's website at:

[http://www.ofcom.org.uk/legacy\\_regulators/oftel/narrowband\\_mkt\\_rvw/fixednarrowbandstatement.pdf](http://www.ofcom.org.uk/legacy_regulators/oftel/narrowband_mkt_rvw/fixednarrowbandstatement.pdf)



for handling of competition complaints and disputes, published July 2004<sup>14</sup> that it will be reluctant to resolve a dispute unless one party is dominant and/or failure to agree would result in detriment to competition or consumers.

### **BT's NCCN 500 charges**

- 3.49 On 1 April 2004 BT issued a Network Charge Change Notice numbered NCCN 500 ('NCCN 500') that raised some of its termination charges for NTS calls with effect from 1 May 2004. The new charges apply to the termination of calls on BT's 0845, 0870 and 0820 'internet for schools' ranges<sup>15</sup>. They are only charged on calls which originate on networks other than BT's; they are not reflected in the transfer charges made within BT in respect of calls which both originate and terminate on BT's network. The NCCN 500 rates are up to 74% higher (depending on call type and time-of-day) than the charges that BT made to OCPs prior to the implementation of NCCN 500.
- 3.50 Other CPs are strongly opposed to the NCCN 500 charges, on the basis amongst other things that for 0845 and 0870 numbers the current wholesale call origination and interconnect arrangements prevent them from raising their own termination charges for calls originating on the BT network.
- 3.51 The issues raised by BT's NCCN 500 charges are considered in Ofcom's NTS Call Termination Market Review which has been carried out in conjunction with the current NTS policy review. These issues are not therefore considered further in this consultation document.

### **Transit charges**

- 3.52 BT is by far the largest provider of transit services involved in the transmission of NTS calls, providing transit for almost all NTS traffic. BT has been designated as having SMP in the market for transit services, and its transit charges are subject to the Wholesale Charge Controls.
- 3.53 As noted above, the practice of who pays for transit charges varies according to the number range being called. For 0844 and 0871 calls, the OCP will pay the transit charges; for all other NTS calls, the TCP will pay. Some in the Industry regard this inconsistency as an undesirable anomaly.
- 3.54 The explanation for the anomaly lies in the fact that, when the 0844 and 0871 number ranges were introduced in 1999, the intention was to solve the problem of revenue uncertainty for TCPs by allowing them to set their termination payments. OCPs were considered responsible for paying the transit payment to avoid the TCP being left with a remaining source of revenue uncertainty in relation to transit payments.
- 3.55 Some OCPs have refused to carry some 0844/0871 calls (callers get a 'number unobtainable' tone or message) because, amongst other reasons, they are reluctant to pay the transit charge. This is one of the factors which has reduced

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<sup>14</sup> A copy of this document is available at Ofcom's website at:  
[http://www.ofcom.org.uk/bulletins/comp\\_bull\\_index/eu\\_directives/?a=87101](http://www.ofcom.org.uk/bulletins/comp_bull_index/eu_directives/?a=87101)

<sup>15</sup> NCCN 500 also applied to the legacy 0345 and 0990 ranges.

the viability of the 0844/0871 number ranges in the eyes of some CPs and NTS SPs.

- 3.56 It has already been noted that the policy of encouraging migration from 0845/0870 to 0844/0871 has met with very limited success, and that it may now be appropriate to consider alternative approaches. If the NTS regime is modified, it would also seem appropriate to revisit the arrangements for transit charges, in order to resolve the current anomaly. This is considered further in Section 7 in the context of implementing Ofcom's preferred option.

### **Service Provider issues**

- 3.57 The service providers who use NTS number are naturally affected to a greater or lesser extent by the consumer and interconnect issues described above. In particular, the declining level and uncertain nature of call termination revenues is also an issue for service providers, as it is likely to be reflected in their revenue shares. If BT continues to reduce its retail prices for geographic calls, the revenue shares passed on to service providers by TCPs in respect of 0845 and 0870 calls may decline to a point where there is insufficient revenue to fund the services provided on these number ranges.
- 3.58 This possibility is of particular concern to providers of PAYG internet services, as their business model is largely dependent on the revenue shares they receive from TCPs. A number of the internet service providers (ISPs) Ofcom spoke to in the course of the review indicated that further reductions in BT's standard rates for local calls (and consequently reductions in BT's retail prices for 0845 calls) could undermine the viability of their PAYG services which are typically provided on 0845 numbers. As mentioned in paragraph 3.34 the regulatory response to service providers and TCPs concerns about reducing prices and the uncertainty about when price reductions will occur has been to encourage service providers to migrate their services to the 0844 and 0871 ranges. However, as mentioned in paragraph 3.36, Ofcom acknowledges that the policy of promoting migration has not achieved the desired objective, and that it is now appropriate to consider alternatives. Ofcom considers it important that consumers continue to benefit from a wide availability of PAYG internet services and has therefore considered services providers' concerns about reducing revenue shares in the context of this review.
- 3.59 There is one additional issue which affects service providers and which has not yet been mentioned, and this concerns the extent to which they are or are not aware of the retail charges faced by callers dialling their 084 and 087 numbers.

### **Service provider awareness of retail charges for NTS calls**

- 3.60 There is some evidence that the organisations which use 0845 and 0870 numbers instead of normal geographic numbers for inbound calls may not always be aware of the pricing implications this has for their customers. The factors which drive businesses and other organisations to use 0845 and 0870 numbers are many and varied. Ofcom research (as detailed at Annex 7) indicates that objectives may include, for example:

- being able to move location and keep the same number;
- preventing customers from determining their location; and

- making contacting them less expensive for callers.

3.61 The research also shows that some organisations opt to use non-geographic numbers without realising that as a result at least some of their customers will pay more to call them. This could be, for example, because customers who would otherwise have paid a local geographic call charge find themselves paying for an 0870 call, or because customers use CPs who charge much higher rates for 0845/0870 calls than for local/national geographic calls.

## Policy objectives

3.62 This section provides a summary of Ofcom's policy objectives which are described in more detail in Annex 10.

3.63 In developing and evaluating policy options to address the issues described above, Ofcom has had regard to three main policy objectives, each of which is rooted in its statutory obligations:

- promoting competition and service availability;
- protecting the interests of citizen-consumers; and
- encouraging the provision of network access and service interoperability between CPs.

3.64 In the present context, the first of these objectives is likely to be furthered if the NTS regulatory regime:

- supports competition between SPs, in terms of price and/or service quality;
- promotes fair and effective competition between the CPs involved in the provision of NTS calls;
- allows for the continued availability of SP revenue shares; and
- supports the continued viability of PAYG internet access services.

3.65 The objective of consumer protection is likely to be furthered through measures designed to:

- raise consumer and NTS SP awareness of retail charges for NTS calls;
- discourage the use of higher priced NTS numbers in circumstances where the consumer has little choice about the number being called;
- ensure that call centre waiting times are not adversely affected by the availability of a revenue share;
- prevent misleading advertising; and
- ensure appropriate controls are in place regarding the provision of adult content.

3.66 Finally, the goal of encouraging the provision of network access and service interoperability arrangements between the CPs is likely to be furthered by measures which are aimed at securing efficiency and sustainability. Such measures may include:

- to reduce or eliminate the revenue uncertainty which currently affects TCPs in relation to 0845 and 0870 calls;
- to provide OCPs with incentives to interconnect their networks directly where it would be economically efficient to do so.

3.67 It will be apparent from the discussion of issues that these objectives may not always be compatible with one another. In particular:

- policies designed to promote price competition will tend to lead to a proliferation of different price levels and may consequently exacerbate the low consumer price awareness of NTS call prices; and
  - policies designed to support widespread service availability based on revenue sharing may encourage the use of NTS numbers for services where consumers have little choice over the number being dialled.
- 3.68 Because of the trade-offs which may exist between policy objectives, the relative weight given to each objective may have an influence on the outcome of the option evaluation.
- 3.69 Ofcom has also taken into account a number of other objectives in defining and evaluating policy options. In particular, it has taken account of the desirability of minimising the implementation costs and consumer disruption likely to be associated with particular options. These costs could take a number of forms, including for example, short-term price rises for consumers, number migration costs for consumers, CPs and SPs, expenditure on billing system upgrades, or reduced revenues for CPs or SPs. Ofcom has also had due regard for its own regulatory principles, as set out in its Annual Plan for 2004/2005.
- 3.70 The policy objectives which have been taken into account in carrying out this policy review are discussed in more detail in Annex 8.

*Question 2: Do stakeholders think that Ofcom has captured all of the main issues that stakeholders have with the current NTS regime? Are there any other key issues that should be taken into consideration in this consultation?*

*Question 3: Do stakeholders agree with Ofcom's policy objectives?*

*Question 4: When evaluating the options, what weight should Ofcom give to the various policy objectives, bearing in mind the trade-offs that may exist between them?*

## Section 4

# Pricing and interconnect options

## Introduction

- 4.1 Ofcom has developed policy proposals to address the issues identified in Section 3 in two stages. The first stage has involved the specification and evaluation of a number of pricing and interconnect options. These options are designed to address the interconnect issues referred to in Section 3, and some (but not all) of the consumer issues e.g. those related to the availability of revenue shares and the pricing of calls. The pricing and interconnect options are described in this Section and assessed in Section 5.
- 4.2 The second stage in the policy development process has involved the specification of a number of additional policy initiatives, which are designed to address the remaining issues, most of which are related to consumer protection. These initiatives are described in Section 6.
- 4.3 A number of pricing and interconnect policy options have been developed by:
  - defining generic pricing and interconnect models that could be applied to NTS services; and then
  - applying those generic models in different ways to the various categories of NTS call, and in some cases to different types of service provider.

## Generic pricing and interconnect models

- 4.4 A number of generic pricing and interconnect models were defined in terms of the following dimensions:
  - retail pricing: who sets the retail price for the call - the OCP, the TCP or Ofcom?
  - call origination: what regulatory obligations are applied to BT in relation to call origination - an obligation to originate NTS calls at cost and retail calls on behalf of the TCP (as now), an obligation to originate calls at cost but not to retail calls on behalf of the TCP, or no NTS specific obligations at all?
  - call termination: are charges for call termination subject to regulation?
- 4.5 Using these dimensions, the following four generic models were specified:
  - Model A - the current 0845/0870 model
  - Model B - retail price competition
  - Model C - indirect access
  - Model D - the geographic model

### Model A: the current 0845/0870 model

- 4.6 This is the model that has been applied to 0845 and 0870 calls since 1996. It has the following features:
  - the OCP sets the retail price for the call, with the charges being linked in BT's case to its standard geographic local and national rates;

- BT is obliged to originate calls in line with the Wholesale Charge Control and to retail calls on behalf of the TCP; and
  - charges for call termination are not subject to regulation.
- 4.7 A flaw in this model is that, as has been seen, it leads to revenue uncertainty for the TCP, at least on those calls which originate from BT customers.
- 4.8 The model continues to support some degree of revenue sharing between TCPs and NTS SPs, despite recent reductions in BT's standard payments for 0845 and 0870 call termination. It is possible, however, that if BT's standard rates for geographic local and national calls continue to decline, or the discounts available on 0845/0870 calls increase, the future of the revenue share could be put in doubt, particularly in the case of 0845 calls.
- 4.9 With this model, the size of the revenue share is unrelated to the nature of the service being provided by the NTS SP, and is likely to be driven on a somewhat arbitrary basis by the retail pricing decisions taken by the OCP, who may often have no financial interest in the magnitude of the revenue share available.

### **Model B: retail price competition**

- 4.10 This is the model that is currently applied to 0844, 0871 and 09 calls. The key features are that:
- retail prices for calls made by BT customers are set by the TCP, within various specified price ranges as designated in the Plan e.g. up to and including 5p per call or per minute for 0844, up to and including 10p per call or per minute for 0871;
  - BT is obliged to originate calls in accordance with the Wholesale Charge Control and to retail calls to the consumer on behalf of the TCP under the BT NTS Call Origination Condition; and
  - call termination charges are unregulated at present (though see the NTS Call Termination Market Review).
- 4.11 This model is designed to support revenue sharing. As mentioned BT's charges for call origination are regulated as a result of its SMP in the wholesale call origination market and the BT NTS Call Origination Condition requires that all remaining revenues are passed on to the TCP. These revenues are then available for sharing with the NTS SP.

### **Model C: indirect access**

- 4.12 With this model calls to services that currently use NTS would utilise indirect access instead. BT is subject to a regulatory obligation to provide indirect access<sup>16</sup>. As compared with Model B, the key feature is that this model would require the removal of the regulatory obligation on BT to retail the NTS call on behalf of the TCP but BT in providing IA would still have to convey the call across its network in line with the Wholesale Charge Control. As a result, the TCP would either:
- have to reach a commercial agreement with BT under which the latter would bill the call and pass on a certain amount of revenue to the TCP; or

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<sup>16</sup> BT's obligation to provide Indirect Access is set out in SMP Condition AA9 which is set out in Schedule 1 to the Notification in the Call Origination Market Review.

- establish an alternative payment mechanism e.g. by setting up a direct contractual relationship with the customer for the sole purpose of collecting revenue for a particular service or by utilising an existing relationship between the TCP and calling party, for example for the provision of indirect telephony. Alternatively other types of micro-payment mechanisms could be employed. Ofcom's international benchmarking study found that these models are used by ISPs in some EEA countries (see Annex 8).

4.13 A third option would be for the NTS SP to establish a direct commercial relationship with the calling party, and then to reimburse the TCP for the services it provides.

#### **Model D: the geographic model**

4.14 The final generic model is based on the model currently applied to geographic calls. Its key features are that:

- the OCP sets the retail price of the call;
- in the case of BT, retail prices are subject to the Retail Charge Control; and
- charges for call termination may be regulated, depending on whether any supplier or suppliers are found to have SMP in the relevant market(s).

4.15 This model is not designed to promote revenue sharing, principally because the OCP sets the retail price of the call and is unlikely to have any interest in revenue sharing with the NTS SP. The regulation of termination charges would also militate against revenue sharing, with little or no room for a revenue share. However, it is possible that revenue sharing could arise as a result of commercial negotiations between OCPs, TCPs and NTS SPs. Alternatively NTS SPs could raise revenues through the use of other payment mechanisms, as with Model C.

4.16 As mentioned in Section 3, in the geographic retail calls market, certain of BT's retail prices are currently subject to a Retail Charge Control as a remedy to BT's SMP in this market. In addition, the provision of fixed geographic call termination by TCPs is regulated, based on the finding that each TCP has SMP in the market for fixed geographic calls terminated on its network<sup>17</sup>. Whether a similar approach would be followed if the same model were applied to NTS calls would depend on the results of analysis of the relevant markets.

#### **Summary of generic models**

4.17 The key elements of the five generic models for pricing and interconnection are summarised in Figure 6.

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<sup>17</sup> The obligations on BT and TCPs to provide Network Access in the markets for fixed geographic call termination are set out in SMP condition BA1 and BC1 respectively in Schedule 1 of the Notification in the 'Review of Fixed Geographic Call Termination Markets' published by the Director on 28 November 2003.

**Figure 6: Key features of generic pricing and interconnect models**

	A Current 0845/0870 Model	B Competitive Retail Pricing	C Indirect Access	D Geographic Model
Retail prices	Linked to standard geographic call charges for BT customers	Selected by TCP/NTS SP from a pre-defined range	Set by NTS SP/TCP	Genuine geographic rates (or close). Possibly regulate by bringing within retail charge control
Origination charges	BT receives regulated retention for conveyance and billing	BT receives regulated retention for conveyance and billing	BT receives regulated retention for conveyance, but has no obligation to bill	Residual
Termination charges	Residual	Residual	Residual	Possibly regulated termination charge, depending on presence of SMP

### Pricing and interconnect policy options

4.18 Five pricing and interconnect policy options have been developed, by applying the generic models described above in different ways to the various NTS number ranges. One of the options also makes use of a distinction between two different types of NTS service provider, namely:

- ECS service providers<sup>18</sup>, for example ISPs and resellers of international voice calls; and
- non-ECS service providers, which is likely to include the generality of businesses and public sector organisations that use NTS numbers to receive calls.

4.19 The rationale for drawing this distinction is explained below in the description of the relevant option (Option 3).

4.20 The five policy options are:

- Option 1 - The status quo;
- Option 2 – Extended retail price competition;
- Option 3 - No regulated revenue share on 0845/0870;
- Option 4 - No regulated revenue share on 084/087; and
- Option 5 - No regulated revenue share on any current NTS number ranges.

4.21 These options are described in turn below.

<sup>18</sup> This concept is explained in more detail below, but in essence an ECS provider is a provider of a service which principally involves conveyance of signals over a network and is distinct from a content service.



**Option 1: the status quo**

- 4.22 The current framework has been highly successful in achieving its primary aim of promoting the supply of value added services. Although there has not been widespread migration of services from 0845/0870 to 0844/0871, there are indications that this has recently begun to happen. As such, although the current framework has not achieved all of its objectives, it remains a coherent policy position. Looking ahead, the central theme of this option is that TCPs and NTS SPs would continue to be encouraged to migrate from the 0845/0870 number ranges onto 0844/0871, as a means of overcoming revenue uncertainty.
- 4.23 This option is represented diagrammatically in Figure 7. As the figure shows, Model A (the current 0845/0870 model) would continue to apply to 0845 and 0870 calls, and Model B (retail price competition) would continue to apply to the freephone, 0844, 0871 and 09 number ranges.
- 4.24 A dotted oval is shown against Model C, to reflect the fact that NTS SPs wishing to bill callers directly for calls made to their NTS services already have the option of doing so, under the regulatory arrangements for indirect access. This indirect access facility is not widely used by NTS service providers as an alternative to the NTS arrangements at present, as direct billing is only likely to be economic for services where callers make a relatively large number of calls e.g. to a PAYG internet service.

**Figure 7: Option 1 - The Status Quo**

	<b>A Current 0845/0870 Model</b>	<b>B Competitive Retail Pricing</b>	<b>C Indirect Access</b>	<b>D Geographic</b>
<b>ECS</b>	0845, 0870	080, 09, 0844, 0871	SPs also have option of using IA to bypass BT billing eg. Tesco*	
<b>Non-ECS</b>				

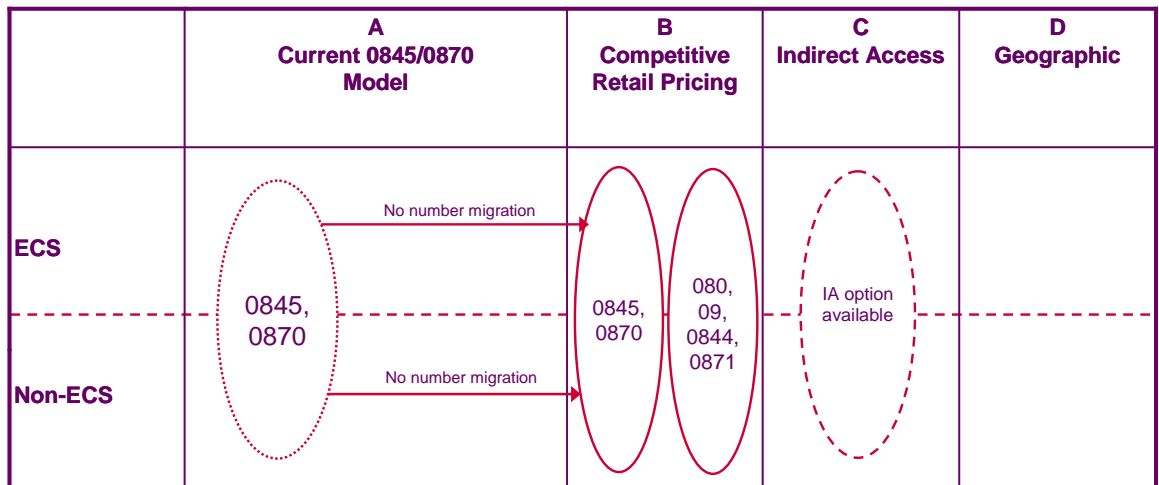
\* IA may only be suitable for high volume and/or high value services

**Option 2: Extended retail price competition**

- 4.25 Under Option 2, the pricing and interconnect model currently applied to freephone, 0844, 0871 and 09 calls would be extended to the 0845 and 0870 number ranges. For 0845/0870 calls, the current links to standard geographic local and national retail call prices for BT customers would be broken, and retail prices for BT customers would be set by the TCPs. As on 0844/0871 calls today, TCPs would be able to select retail prices within the price range that would be designated by Ofcom in the Plan. TCPs would also have the option to

opt-out of BT discount schemes (as is currently the case on the 0844/0871 ranges today).

**Figure 8: Option 2 - Extended retail price competition**



4.26 This option is designed to provide revenue certainty for TCPs and SPs, and to promote retail price competition between the service providers who use 0845 and 0870 numbers. To the extent that it succeeds in achieving this objective, it would create pressure for retail prices to fall over time, to the benefit of consumers.

4.27 Ofcom recognises, however, that competitive pressures could not necessarily be relied on to constrain the prices of all 0845 and 0870 calls, particularly in cases where the caller has little or no choice over which service provider they can call. There is therefore a danger that the retail prices for calls to some 0845 and 0870 numbers could rise as a result of breaking the link with standard geographic local and national call retail prices for BT customers.

4.28 One way in which this danger of retail price increases could be addressed would be through the specification by Ofcom of the ranges within which retail prices would have to be set for calls from BT customers. Ofcom's current view is that the designations applicable under this option would be as follows:

- 0845 - up to and including 4p per minute or per call; and
- 0870 - up to and including 8p per minute or per call.

4.29 These retail price ranges would ensure that any increases in the retail prices for 0845/0870 calls from BT customers would be only marginal in nature during the peak weekday-charging period, although they could be more significant for calls made during evenings and weekends.

4.30 Other measures could also be taken to protect consumers against price increases by increasing their awareness of the prices being charged. Possible initiatives in this area are considered in Section 6.

4.31 Ofcom's view is that the potential benefits of Option 2 would only be realised if BT's interconnect and billing systems were able to allow TCPs to set retail prices for different NTS number blocks on a more granular basis than at present (i.e. lower than the 100k level). Ofcom commissioned a consultancy

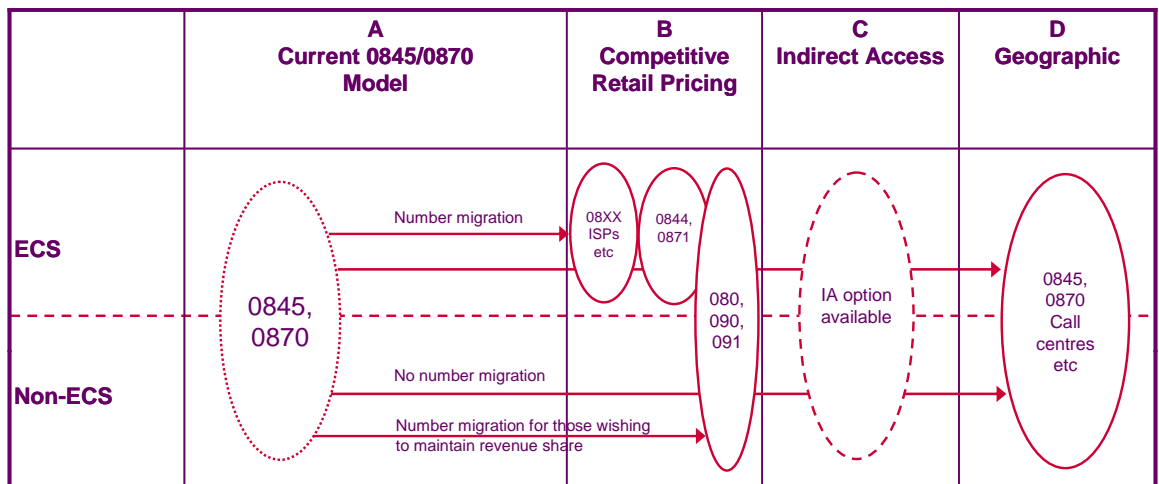
study to look into this issue and, in particular, to investigate the likely cost of introducing a more granular billing capability, for calls made from both BT's network and from other OCPs' networks. The findings of that study are set out in Annex 13. In summary, Ofcom's consultants concluded that there were no major technical obstacles to the introduction of more granular tariffing but that it would involve investment by BT to upgrade its billing system. Other CPs would also need to upgrade their billing systems if they wished to implement increased tariffing granularity. The changes would also take approximately a year to implement.

4.32 The proposed designations of the price points available for these number ranges would give transparency to industry of the scope for TCPs to obtain a particular terminating payment on an 0845 or 0870 number. If TCPs wanted to obtain greater terminating payments, a more appropriate number range, such as 0871 or 09, could be selected.

**Option 3: No regulated revenue share on 0845/0870**

4.33 The idea underlying Option 3 is that regulation should not create scope for service providers to obtain a revenue share on an 0845 or 0870 call where the consumer has a limited choice over the number being called since no direct substitutes are available. The rationale for this position is that, where consumer choice is limited in this way there will be no competitive mechanism to ensure that the benefits of the revenue share flow back to the service providers' customers. If the service provider is a commercial organisation, the revenue share may serve to boost profits, or be used to subsidise other, unrelated activities. This approach would rely on the deterrent effect of the need to migrate to a new number range to discourage price rises.

**Figure 9: Option 3 - No Regulated Revenue Share on 0845/0870**



4.34 This idea is complex to implement because calls where callers have little or no choice as to the number they call cannot be separated with great certainty from calls where the consumer has a choice. However, it maybe possible to make some progress towards this objective by drawing a distinction between 'ECS' and 'non-ECS' providers which use 0845 and 0870 numbers.

4.35 ECS (electronic communications service) is a concept that is set out in section 32(2) of the Act and which ultimately comes from the Framework Directive. In

essence it is a reference to a service, having as its principal feature, the conveyance of signals via an electronic communications network. This concept does not include content services.

- 4.36 The largest category of ECS provider that uses 0845 numbers is likely to be ISPs providing dial-up PAYG narrowband internet access. Other ECS providers who use 0845/0870 numbers include resellers of international voice telephony services. In Ofcom's view, the markets served by these ECS providers are subject to competitive pressures, and it is likely that the purpose of most of the 0845/0870 calls made to those ECS providers will be to access those competitive services.
- 4.37 Under Option 3, the regulatory regime would no longer be designed to enable non-ECS NTS service providers to secure a revenue share on 084 or 087 calls. More specifically:
- BT would no longer be obliged to originate and retail 0845/0870 calls on behalf of TCPs where their NTS SPs are non-ECS providers - Ofcom would need to review the BT NTS Call Origination Condition with a view to excluding 0845 and 0870 number ranges from the scope of the definition of NTS numbers. This would be equivalent to moving these number ranges from pricing and interconnect Model A to Model D, as illustrated in Figure 9;
  - Ofcom expects that BT would still be required to provide call origination in accordance with the Wholesale Charge Control in relation to the remaining remedies to BT's SMP in the wholesale call origination market such as indirect access;
  - ECS providers would be permitted to migrate to 0844/0871 numbers or perhaps to a new 08XX number range, specifically designated by Ofcom for use by ECS NTS SPs, where they would continue to be able to secure a revenue share; and
  - Ofcom would need to consider implementing arrangements whereby non-ECS providers would not be permitted to migrate to 0844/0871 numbers.
- 4.38 If this policy were to be implemented, non-ECS providers currently using 0845 or 0870 numbers would have the following options:
- give up any revenue share they currently receive but continue to provide service on the same number;
  - migrate their services on to the 09 number ranges to continue revenue sharing with regulatory underpinning;
  - continue to provide service on the same number and, through their TCP, seek a negotiated agreement with BT under which BT would continue to retail the call on behalf of the TCP/SP on a commercial basis;
  - continue to provide service on the same number and establish an alternative mechanism for billing their customers; or
  - exit the market.
- 4.39 Ofcom suspects that, for many (though not all) non-ECS NTS SPs using 0845 services, the loss of the revenue share would not be a significant issue, either because they receive no revenue share, or because the proportion of their total revenues raised in this way is very small. This is backed up by the findings of Ofcom's consumer research as set out in Annex 7, the results of which indicate that only a minority (28%) of businesses using 084 numbers involved in the survey actually made money from these numbers. These NTS SPs may well continue to provide services using the same 0845 numbers.

- 4.40 Ofcom has also given consideration to non-ECS NTS SPs that use 0845 who may be non-profit organisations. These organisations may not be able to absorb the cost of continuing to use their 0845 numbers under Option 3, particularly if TCPs begin to request payments to cover the costs of intelligent routing on these number ranges when the NTS regulation is removed. This issue was drawn to Ofcom's attention during pre-consultation discussions with the Telephone Helplines Association (THA)<sup>19</sup>.
- 4.41 Ofcom has considered ways in which it could avoid disadvantaging these sorts of organisations as a result of making changes to the NTS regime. Ofcom considers that one way of tackling this issue (which also arises under Options 4 and 5) might be to introduce a new 08XX number range for non-profit helplines. This range would only be available to members of the THA, and, whilst not subject to NTS regulation, TCPs could continue to agree to charge non-market rates for delivering calls to these numbers in the same way as TCPs currently do under the SFT scheme. Ofcom has not fully explored this idea and notes that, even if implemented, non-profit organisations currently using 0845 numbers and unwilling to pay commercial rates for intelligent routing following the introduction of Options 3, 4 or 5 would still be faced with having to migrate their services to a new 08XX number.

*Question 5: Ofcom welcomes stakeholders' views on what (if any) special provisions should be made to help non-profit organisations to obtain preferential rates for receiving inbound NTS calls should Options 3, 4, or 5 be introduced?*

- 4.42 For the NTS SPs on 0870, the loss of the revenue share would typically be a much more significant issue - Ofcom's consumer research as set out at Annex 7 indicates that the majority (56%) of businesses using 087 numbers involved in the survey made money from these numbers, and Ofcom considers that they are much more likely to explore the available alternatives. This could mean a move to the 09 number ranges. If they did move to 09, this could be accompanied by an increase in the retail price of the calls, although this would not necessarily be the case, as there is no lower limit on retail prices that TCPs may request for 09 calls made by BT customers.
- 4.43 Ofcom also notes that there is a higher level of consumer awareness of the relative cost of the 080 freephone and 09 premium number ranges than the 084 and 087 number ranges, and that a greater proportion of consumers understand that calls to the 09 range are more expensive than to geographic numbers. In addition revenue sharing on calls costing more than 10p per minute (which is pricing currently only available on the 09 range) are covered by ICSTIS regulation. Consumer concerns may therefore be lessened if calls where the caller has little choice over which number they call can be ring-fenced onto the 09 number range.
- 4.44 If service providers, through their TCPs, sought to negotiate an agreement with BT designed to maintain the revenue share, it is likely that the amount charged by BT for billing the 0845/0870 calls would be higher than at present in the

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<sup>19</sup> The THA is a body that provides information, consultancy and training in relation to the setting up and running of non-profit telephone helplines in the UK. The THA also currently acts as a gatekeeper for the Special Freephone Tariff (SFT) scheme. Under the SFT scheme, members of the THA are able to use freephone numbers from the 0808 8 0XX XXX range. Most CPs agree to make freephone services available on the SFT range at less than the full commercial cost to organisations using these numbers for inbound contacts.

absence of the provision of an established wholesale product such as indirect access or carrier pre-selection.

- 4.45 One implementation issue that would need to be addressed under this option concerns the fact that there are already a number of non-ECS service providers using the 0844 and 0871 number ranges and benefiting from revenue sharing on these ranges. The question arises as to whether these service providers would be allowed to remain on their existing numbers (with regulatory underpinning for revenue sharing); despite the fact that access to the 0844/0871 ranges and continued revenue sharing (with regulatory underpinning) would be denied to their counterparts currently using 0845/0870.

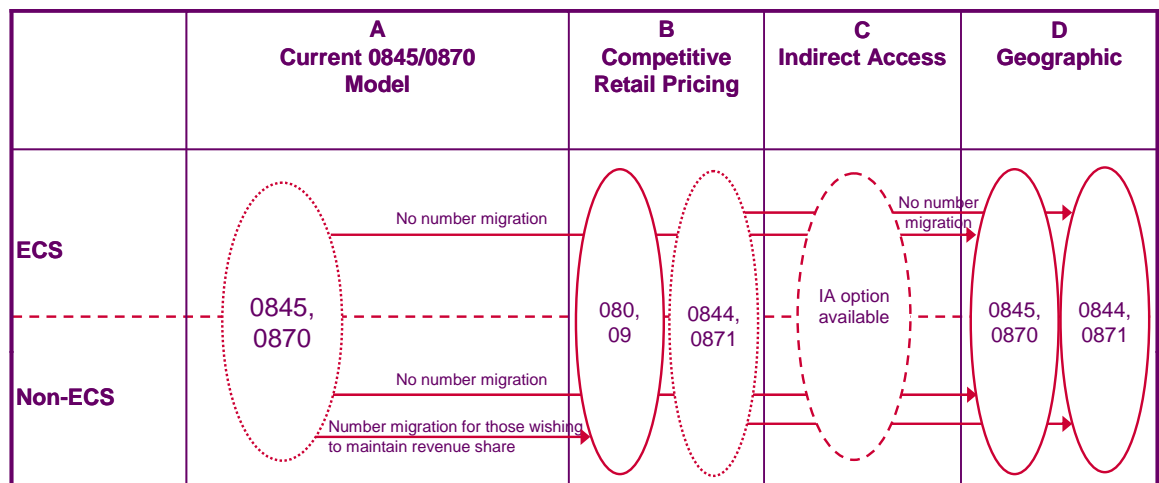
*Question 6: If Option 3 were implemented do stakeholders think non-ECS NTS Service Providers that are already using 0844 and 0871 numbers should be allowed to continue to benefit from the regulatory underpinning for revenue sharing for these number ranges?*

**Option 4: No regulated revenue share on 084/087**

- 4.46 Under Option 4, regulatory support for revenue sharing would be removed on all 084 and 087 numbers. The rationale for this more radical approach can be summarised as follows:

- 0845 and 0870 calls were originally designed to enable consumers to access a range of value added services at standard local and national call rates
- the concept of standard charges for local and national calls is of diminishing relevance, and the stage has already been reached at which only a small proportion of consumers pay these charges for 0845 or 0870 calls in practice;
- the case for NTS call categories with retail prices linked to geographic call rates can, therefore, no longer be sustained; and
- whilst there is comparatively good consumer awareness of the likely cost of calling the 080 freephone and 09 premium number ranges, there is low consumer awareness of the tariff meaning of the 084 and 087 number ranges, so it is arguably better for consumers to have all revenue sharing confined to the reasonably well-recognised 09 number range.

**Figure 10: Option 4 – No Regulated Revenue Share on 084/087**

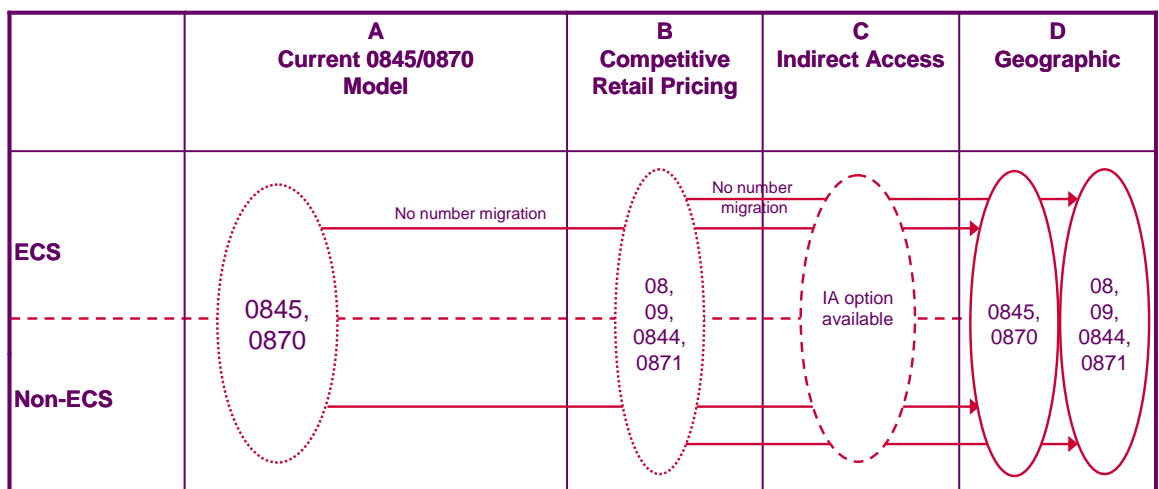


4.47 Under Option 4, all current NTS SPs using 084/087 numbers would be faced with a similar range of choices to that identified above in relation to Option 3 (see paragraph 4.38 above). Their likely responses to these alternatives are considered further in the section below on option evaluation.

**Option 5: No regulated revenue share on any current NTS number ranges**

4.48 Option 5 is the most radical of the five options and would involve ending the pricing and interconnect regime which supports revenue sharing on all NTS number ranges, including the 09 range. This would be achieved by withdrawing the BT NTS Call Origination Condition in its entirety. The option is depicted diagrammatically in Figure 11.

**Figure 11: Option 5 - No regulated revenue share on any current NTS number ranges**



4.49 The rationale for ceasing NTS regulation altogether is based on the view that:

- collecting revenues for content or other value-added services through the phone bill is arguably inappropriate because it is susceptible to fraud (e.g. internet dialler fraud) or otherwise generates consumer harm; and
- advances in technology are leading to the development of alternative micro payment mechanisms other than NTS, and the withdrawal of NTS regulation would encourage this trend.

4.50 If TCPs wished Freephone calls to continue to be free of charge to the caller then Ofcom would need to consider the basis for BT’s call origination charges for freephone calls. Two options have been identified:

- allow BT to negotiate its charges for retailing those calls on a commercial basis, without regulatory intervention; or
- require BT to ensure that the margin built into its freephone call origination charges reflects its average margin on local and national geographic calls.

*Question 7: If Option 5 were implemented, do you think that Ofcom should retain the BT NTS Call Origination Condition for freephone calls? If not, what alternative basis should be applied to BT’s call origination charges for freephone calls?*

### Other options considered

4.51 In the course of the review, Ofcom has also considered a number of other options, which have not been included in the shortlist for evaluation. Two of these options are described briefly below.

#### The NTS Futures Proposal

4.52 This option has been developed by a group of CPs (known as the NTS Futures Sub-group) and became known as the NTS Futures Proposal. The idea behind it is that a single retail price would continue to be applied to each of the 0845 and 0870 calls made by BT customers, but that this price would be decoupled from BT's geographic local and national retail call prices. This would achieve the NTS Futures Sub-group's aim of achieving greater certainty in termination payments.

4.53 This option has not been taken forward for assessment, primarily because it is not clear precisely how it would work, or whether it is feasible in competition law terms. The NTS Futures Sub-group suggested that the new prices for 0845/0870 calls from BT customers could be set through bilateral commercial discussions between BT and all NTS TCPs. However, Ofcom is concerned that an approach which is based on such discussions could be contrary to EC and UK competition legislation.

4.54 Other difficulties with the NTS Futures Proposal are that :

- once the link with geographic call charges has been broken, it is unclear what principles should be applied to determine the appropriate level of payment for terminating 0845 and 0870 calls; and
- as the proposal does not specify new price levels for 0845/0870 calls, nor a mechanism by which these price levels might be able to change in future, their impact for example on consumers cannot be assessed.

4.55 An alternative approach might be for Ofcom to regulate retail prices or termination payments. In regard to NTS termination, given the findings of the NTS call termination market review which accompanies this consultation document, Ofcom does not currently consider it viable to regulate termination payments made to all TCPs, not least because this would require a finding that all TCPs had SMP.

4.56 The remaining approach could be for Ofcom to regulate the retail prices of 0845 and 0870 calls. However, at this stage it is unclear whether such regulation would be possible under existing regulation because it would require a finding of SMP in a relevant retail market. Ofcom is also inclined to reject an approach based on retail price regulation because it would be contrary to Ofcom's commitment to seek the least intrusive regulatory mechanisms which implies relying on markets to set prices where possible using minimum controls. Setting retail prices should only be considered as a last resort where wholesale measures have been unsuccessful.



## **Banning revenue sharing on NTS number ranges**

- 4.57 Ofcom has also considered variants of Options 3, 4 and 5 that would involve banning revenue sharing altogether on 0845/0870 numbers (Option 3 variant), all 084/087 numbers (Option 4 variant), or all 08/09 numbers (Option 5 variant). These variants would not only remove the regulatory provisions which currently support revenue sharing, but would additionally aim to prevent TCPs from sharing any revenues with NTS SPs receiving inbound calls on NTS numbers.
- 4.58 Ofcom's comments on a possible ban on revenue sharing are as follows. Firstly, there would probably be little point in a ban if it were applied only to 0845/0870 numbers, as SPs could then continue to revenue share on 0844/0871 ranges. The variants on Options 4 and 5 would therefore make more sense than the variant on Option 3.
- 4.59 Secondly, the effect of a ban on 084/087 revenue sharing (i.e. the variant of Option 4) would be to ring fence revenue sharing within the 09 number range. This approach would take advantage of the fact that consumer price awareness is higher for 09 numbers than for 08 numbers, and that calls costing over 10 pence per minute are covered by ICSTIS regulation. However, it is worth noting that it might be possible to achieve a similar outcome without forcing wholesale SP migration from 08 to 09 numbers (i.e. in a more proportionate way), by implementing some of the consumer initiatives discussed in Section 6 below (e.g. extending ICSTIS regulation to 084/087 numbers).
- 4.60 Thirdly, Ofcom is not persuaded that an outright ban on NTS revenue sharing, as envisaged under the variant of Option 5, would be justified, even if it were possible. This is because, in Ofcom's view, the benefits to consumers of being able to use NTS as a micro-payment mechanism are significant, and there is insufficient evidence for the view that these benefits are outweighed by consequential, unavoidable detriments.
- 4.61 In the light of the above, Ofcom is not consulting on options that would involve a ban on revenue sharing, although it would welcome comments on these variants of Options 3, 4 and 5.

*Question 8: In connection with Options 3, 4 and 5, do stakeholders think that it would be appropriate for Ofcom to seek to prevent revenue sharing on the relevant NTS number ranges in order to prevent CPs from negotiating commercial revenue sharing arrangements if the current regulatory support for revenue sharing is removed?*

*Question 9: Ofcom has identified 5 options for evaluation. What other options do stakeholders think that Ofcom should consider?*

## Section 5

# Assessment of pricing and interconnect options

### Introduction

- 5.1 The purpose of this section is to assess the five options described in Section 4 in terms of the policy objectives set out in Section 3 and Annex 10. The primary focus is on how well the various options are likely perform in relation to the objectives of promoting (i) competition and service availability and (ii) the provision of network access and service interoperability through effective and sustainable competition between those involved in the provision of NTS services. Measures designed to address the consumer protection issues raised by NTS services are considered in Section 6.
- 5.2 More detailed comments on each of the options are given in Annex 11.

### Regulatory impact assessment

- 5.3 The analysis presented in this section, when read together with the previous sections and particularly with Annexes 10 and 11, represents a Regulatory Impact Assessment (RIA), as defined by section 7 of the Act. You should send any comments on this RIA to us by the closing date for this consultation. We will consider all comments before deciding whether to implement our proposals.
- 5.4 RIAs provide a valuable way of assessing different options for regulation and showing why the preferred option was chosen. They form part of best practice policy-making and are commonly used by other regulators. This is reflected in section 7 of the Act, which means that generally we have to carry out RIAs where our proposals would be likely to have a significant effect on businesses or the general public, or when there is a major change in Ofcom's activities. In accordance with Section 7 of the Act, in producing the RIA in this document Ofcom has had regard to such general guidance as it considers appropriate, including related Cabinet Office guidance.

### Option 1: The status quo

- 5.5 The existing NTS framework has in many senses been extremely successful. It has created conditions, which have allowed many new and innovative value-added services to be provided to UK consumers in a convenient format, which combines the charge for the telephone call with the charge for the value-added service provided on the same bill. A notable example of this is the dial-up PAYG internet access model, which allows consumers to obtain value-for-money narrowband internet access without upfront financial commitment and without monthly subscription charges. PAYG internet access (in its current form) may not have been possible without NTS. Calls to NTS numbers also represent a significant revenue stream for some broadcasters and programme makers who use NTS numbers for tele-voting, for example.

- 5.6 The existing regime also allows TCPs to address the issue of revenue uncertainty by encouraging their SPs to migrate from the 0845/0870 number ranges to 0844/0871. It is true that TCPs and SPs have up to now been reluctant to take up this option, but there are signs that this situation is beginning to change. Ofcom understands from pre-consultation discussions with stakeholders that some TCPs and NTS service providers have recently stepped up their efforts to migrate to the 0844 and 0871 number ranges.
- 5.7 Other plus points for Option 1 are that the link to geographic call prices does provide some downward pressure on the price of 0845/0870 calls from the BT network, and that its implementation would not give rise to any transitional disruption.
- 5.8 On the other hand, Option 1 has a number of significant weaknesses. First, the current regime has given rise to a long history of Industry disputes regarding the functioning of the NTS framework both in detail and in principle. Many (but not all) of these disputes have been about the uncertainty created for TCPs because their revenue for terminating some types of NTS calls that either originate on or transit the BT network can change suddenly and with little warning as a result of certain BT retail price changes. Resolving these disputes has required a high degree of regulatory involvement in the detail of the NTS framework, which is something Ofcom hopes to reduce as a result of this re-examination of the framework.
- 5.9 A second disadvantage of the current regime is that it does not enable SPs using 0845/0870 numbers to compete with each other in terms of the retail price of calls to their services. Instead, the retail prices for calls to these number ranges incorporate a standard amount of profit, which may or may not be passed on to the SP, and which is unrelated to the nature of the service being provided. As a result, consumers are not able to choose between different price/quality combinations in the way that they might if SPs were free to set their own retail prices for 0845/0870 calls from the BT network.
- 5.10 A related point is that, if BT continues to reduce its retail prices for geographic calls, SP revenues on 0845/0870 may decline to the point where for some SPs there is insufficient revenue to fund the service. This could mean that the current regime will perform less well in terms of service availability in the future than it has in the past. This is a particular risk for providers of PAYG internet services, who account for the bulk of 0845 traffic and whose business models depend very heavily on the revenue shares they receive from TCPs.
- 5.11 Overall, Ofcom's preliminary view is that the current regime has performed reasonably well in promoting NTS service availability but that it does less well in fostering competition between SPs and does not do enough to address the issue of TCP revenue uncertainty.

## **Option 2: Extended retail price competition**

- 5.12 Option 2 has a number of significant advantages. Firstly, it would allow for the development of price competition between NTS service providers using 0845 and 0870 numbers. This is likely to benefit consumers by leading to lower prices for calls to some services, and by providing greater choice in terms of the price/quality combinations offered by different SPs.

- 5.13 The second advantage of Option 2 is that it would solve the problem of TCP/SP revenue uncertainty by giving TCPs and SPs control over the retail charges to BT customers for calls made to their services.
- 5.14 Thirdly, Option 2 would:
- promote the continued availability of a wide range of services on NTS numbers;
  - support the ability of SPs to secure a revenue share from TCPs and, by giving SPs and TCPs more control over the retail price of 0845 and 0870 services; and
  - encourage the use of the NTS regime as a micro-payment mechanism. In particular, Option 2 would help to ensure the continued availability of PAYG internet access services.
- 5.15 Fourthly, by breaking the increasingly tenuous link between 0845/0870 call prices and BT's standard rates for local and national calls, Option 2 would remove a cause of consumer confusion and potentially decrease the risk of misleading advertising.
- 5.16 In addition, Option 2 could go some way to resolving future Industry concerns over BT's NCCN 500 call termination charges, because it would enable other TCPs to respond to any increase by BT in its NTS termination charges by increasing their own termination charges, through the selection of higher price points within the ranges applicable to 0845 and 0870 calls from the BT network. Ofcom does acknowledge however that this ability to retaliate might be constrained (for example) by the TCP's need to maintain sensible 'whole number' retail price points for calls to its services from BT customers, and by the price ceilings on the relevant NTS number ranges.
- 5.17 Ofcom recognises that, for it to be effective in promoting price competition, this option would need to be accompanied by the upgrading of BT's billing systems, to enable them to handle price-setting for 0845/0870 calls at a more granular level than 100,000 number blocks, as at present. Ideally, the billing systems of other OCPs would need to be similarly upgraded, although this would be a commercial decision for those OCPs. As discussed in Annex 13, the cost of upgrading BT's billing systems is estimated at £600,000 to £1.1 million (at present costs). Ofcom's initial view is that these sums are relatively small in the context of the overall cost to Industry of providing NTS services and therefore Ofcom's expectation is that any increases in retail prices that ultimately result would be more than offset by decreases as a result of more retail price competition between NTS SPs.
- 5.18 On the downside, Option 2 does have some potential weaknesses. Firstly, it is likely to lead to a variety of different retail charges for 0845 and 0870 calls, which could be confusing for consumers. This suggests that, to prevent it exacerbating the problem of low price awareness, Option 2 would need to be accompanied by some of the consumer measures discussed in Section 6.
- 5.19 Secondly, there is a risk that the retail prices for some 0845/0870 calls would rise, particularly where consumers have little choice over the number being called. For these services where few direct alternatives are available (and in some extreme cases callers may have little choice in calling particular numbers), retail prices might tend to drift to the top of the specified bands. This

could be addressed to some extent through the way in which the bands are designated, and through the implementation of suitable consumer protection measures.

5.20 Overall, Ofcom's preliminary view is that, on balance, this option performs better against the evaluation criteria than the other available options. It represents a direct and coherent response to many of the issues which have arisen in relation to 0845 and 0870 calls; it should benefit consumers by promoting price competition on competitive services; and it is likely to largely solve the problem of revenue uncertainty for terminating TCPs. The option does have its shortcomings, but there appears to be a reasonably good prospect that these could be managed through the implementation of an appropriate combination of the consumer protection measures described in Section 6 below.

### **Option 3: No regulated revenue share on 0845/0870**

5.21 Before assessing how Option 3 fares in terms of the objectives discussed in Section 3, it is necessary to give further consideration to its likely consequences. Option 3 is more difficult to evaluate than Options 1 and 2 because its effects are more uncertain. In particular, it is difficult to assess how non-ECS service providers and TCPs would respond to the withdrawal of regulatory support for revenue sharing on 0845 and 0870 numbers. As discussed in Section 4, the options available would include:

- give up any revenue share they currently receive but continue to provide service on the same number;
- migrate their services on to the 09 number ranges;
- continue to provide service on the same number and, through their TCP, seek a negotiated agreement with BT under which BT would continue to bill on behalf of the TCP/SP;
- continue to provide service on the same number and establish an alternative mechanism for billing their customers; or
- exit the market.

5.22 As noted in Section 4, Ofcom suspects that for many non-ECS users of 0845 numbers, the loss of a revenue share would not be a significant issue. But in other cases, and particularly for 0870 services, the prospect of losing the revenue share would clearly be a major cause for concern, for both TCPs and NTS SPs.

5.23 In Ofcom's meetings with stakeholders, BT and several other TCPs indicated that they would respond to any reduction in the scope of the BT NTS Call Origination Condition by seeking to reach commercial arrangements designed to perpetuate current arrangements. The aim would be for BT to continue to provide a billing service on behalf of TCPs for 0845/0870 calls, and to continue to share revenues, even though the BT NTS Call Origination Condition no longer covered 0845/0870 calls.

5.24 If agreements of this kind were reached, the costs and benefits of Option 3 would change. On the plus side, the likelihood that NTS SPs would exit the market would be reduced, because they would still be able to revenue share on 0845/0870 numbers. On the downside, Option 3 would no longer be effective

as a means of tackling consumer concerns over the growing replacement of NTS for geographic numbers.

- 5.25 In conducting such negotiations, BT would naturally have an incentive to secure higher margins for retailing 0845/0870 calls. Its charges for call origination would continue to be constrained by the Wholesale Charge Control. However, BT would no longer have an obligation to bill 0845/0870 calls on behalf of the TCP, and its charges for doing so would be unregulated.
- 5.26 In order to assess the extent to which BT might be able to increase its charges for retailing NTS calls, Ofcom carried out desk research into the availability and cost of other micro payment mechanisms. The main findings of that research are listed below:
- NTS is a much lower cost micro payment solution for service providers than most alternatives (e.g. on-line payment techniques, mobile payment techniques). The cost of alternatives suggests that these alternatives would not act as a constraint on BT's pricing of its billing service, absent the NTS obligation on BT.
  - Arguably NTS is very efficient, both for information/content delivered to the handset (whether mobile or fixed) and for paying for tangible products, since it combines communication of need with payment for delivery, in an environment where internet access is not yet ubiquitous, but access to phones (whether fixed or mobile) largely is.
  - Mobile phone based micro payment is the strongest alternative contender in the UK at the moment for the kind of content typically provided by NTS service providers. Development of mobile-based micro payment does not appear to have been inhibited by the existence of NTS, but is developing in parallel (e.g. ring tones for mobiles seem to be provided to roughly the same extent by premium SMS and PRS, tele-voting often offers several alternative ways of registering a vote e.g. via PRS, premium SMS, visiting a web-site).
  - Other things appear to be barriers to the development of micro payment technologies rather than the existence of NTS e.g. consumer acceptance/trust of new payment mechanisms, concerns about fraud, particularly in relation to payments over the internet, lack of standards for micro payments, the cut of revenue taken by micro payment processors and financial regulatory issues around some micro payment techniques.
- 5.27 In the light of these findings, Ofcom is inclined to the view that it would be premature to assume that other micro payment techniques offer a viable alternative at present for NTS service providers to collect revenue. If this is the case, it is possible that, under Option 3, BT's charges for billing 0845/0870 calls could increase significantly above their current level, and that this could be reflected in higher prices to its customers. Such an outcome would reduce the benefits of this option.
- 5.28 Another possible outcome under Option 3 is that BT would fail to reach a commercial agreement with one or more of the TCPs, and the matter would be referred back to Ofcom as dispute. In that event, Ofcom may need to consider whether it was possible and appropriate to impose some form of billing obligation in relation to 0845/0870 calls if SMP were found in a relevant market. Depending on the nature of that obligation, the situation could then resemble either Option 1 or Option 2.

- 5.29 In many respects, this option shares many of the pros and cons of Option 2. Potentially the main advantage over Option 2 is that it is likely to address consumer concerns over the growing use of 0845/0870 calls as a higher-priced alternative to geographic calls, in many cases without any apparent 'value add'. It would do this by removing the regulatory provisions which create opportunities for revenue sharing on 0845 and 0870 numbers, and (if Ofcom took a view to do so) could possibly involve non-ECS providers using NTS numbers being prevented from migrating to the 0844 and 0871 number ranges, which would continue to fall within the scope of the BT NTS Call Origination Condition.
- 5.30 The extent to which this approach would actually deliver lower prices to consumers would depend primarily on (i) how non-ECS providers responded to the change (e.g. whether they remained on their existing numbers, moved back to geographic numbers or migrated instead to the 09 range) and (ii) what happened to 0845/0870 retail prices. On the first of these points, Ofcom recognises that the pattern of likely responses cannot be predicted with any certainty on the basis of the evidence currently available. On the second point, as noted in Section 4, if this option were implemented Ofcom may in due course be able to initiate a market review to consider the retail market(s) into which the new unregulated 0845/0870 calls might fall, whether there was SMP in that market(s) and what remedies might be appropriate as a consequence.
- 5.31 The disadvantages of Option 3, again taking Option 2 as the comparator, are that:
- ECS providers using 0845 and 0870 numbers would have to migrate to other number ranges, if they wished to maintain a revenue share. There would inevitably be some costs involved in implementing this migration, which Ofcom assumes ultimately would be reflected in higher prices to consumers;
  - some non-ECS service providers might cease to provide services if the revenue shares were no longer available on 0845/0870 numbers. Such a reduction in service availability would not be in the consumer interest;
  - as noted above, the likely impact on retail prices is uncertain. It is possible that some non-ECS service providers would migrate to 09 numbers, in which case this might provide those non-ECS providers with an opportunity to increase the price of accessing those services (even though their existing 0845/0870 price point could be made available in the 09 range). Alternatively, some NTS SPs could adopt alternative micro payment mechanisms, or perpetuate revenue sharing through commercial agreements with OCPs. Our analysis suggests that, under either of these options, retail prices are likely to increase;
  - the ECS/non-ECS distinction is a very imperfect proxy for the distinction between services where consumers have little choice as to alternative numbers to dial and those where they have more choice and is likely to prove difficult to apply with any certainty other than on a case by case basis;
  - there is a difficult issue over the treatment of those non-ECS NTS SPs who currently use 0844/0871 numbers. The logic of this option suggests that these NTS SPs should be required to move off those number ranges - otherwise they might be able secure a competitive advantage over rivals who have been denied access to revenue sharing

opportunities on 08 numbers. On the other hand, it could be argued that it would be disproportionate for Ofcom to require such migration, especially as a theme of recent policy has been to encourage TCPs and their NTS SPs to make greater use of the 0844/0871 ranges. At this stage, Ofcom has reached no firm conclusion on how this issue could best be handled; and

- this option involves treating ECS and non-ECS NTS SPs in a different manner. The reasons for this differentiation could be justified in terms of the benefits it would be designed to achieve, but could nevertheless be open to criticism.

5.32 Finally, there is a practical issue about drawing a certain line between ECS and non – ECS providers which could present a real difficulty in implementing this option. Whether a particular provider would be considered to be an ECS provider as defined by the Act would depend on a factual analysis of the service provided in any given case. Ofcom is able to conduct a broad analysis of service provided in the context of NTS and reach a generic view, as explained in Section 3. However any generic assessment would also need to stand up to scrutiny against the definition on its individual facts. This presents a weakness in the proposed distinction between providers of ECS and providers of non-ECS as it may not always be possible to broadly categorise service providers with any degree of certainty. The policy option presented here should be considered with this limitation in mind.

5.33 Overall, Ofcom's preliminary view is that the additional benefits of Option 3, as compared with Option 2, are unlikely to outweigh the additional costs involved in its implementation, in terms of both the short-term disruption for both industry and consumers, and the possible impact on retail prices and service availability.

#### **Option 4: No regulated revenue share on 084/087**

5.34 As with Option 3, the consequences of Option 4 are uncertain, because they will depend on how NTS SPs and TCPs respond to removal of the regulatory underpinning for revenue sharing on 084/087 numbers. The discussion in paragraph 5.21 of the options available to NTS SPs is therefore relevant here as well. The difference in this case is that the regulatory underpinning for revenue sharing would now be removed on all 084/087 numbers, for both ECS and non-ECS service providers.

5.35 In Ofcom's view, potential benefits of this option are that:

- it could encourage the more widespread adoption of other micro payment mechanisms for the services accessed over 084 and 087 numbers. Some of these payment mechanisms might provide greater transparency for consumers e.g. in relation to the separation of charges for conveyance and content;
- it would reduce the extent of regulatory intervention in the NTS market and would therefore be in tune with Ofcom's objective of light-touch regulation; and
- regulatory underpinning for revenue sharing would be corralled within the 09 range. There is a comparatively high degree of consumer recognition of the potential expense of dialling 09 numbers and there are call barring options for this number range readily available to consumers.



- 5.36 There is, however, some doubt over the extent to which these benefits would be realised in practice. Our analysis suggests that NTS SPs/TCPs currently using 084/087 numbers may respond to the change in policy by seeking commercial agreements with OCPs that would enable current revenue sharing arrangements to continue, because alternative micro payment mechanisms have restricted access and/or are significantly more expensive than charging customers through their phone bills. If this was the outcome, the benefits of the change in policy would be significantly reduced.
- 5.37 Additional drawbacks with this option are that:
- it could lead to reduced service availability, if NTS SPs respond by exiting (or not entering) the market; and
  - it could give rise to a significant amount of transitional disruption, for both industry and consumers, associated with number migration, price rises and/or investment in alternative payment mechanisms.
- 5.38 Overall, Ofcom's preliminary view is that this option should be rejected because, as compared to Option 2, it is unclear that it would lead to lower prices for consumers, it would cause significant short term disruption to industry and consumers and there is a risk that it could lead to a reduction in the range of services currently available to consumers on 084 and 087 numbers.

### **Option 5: No regulated revenue share on any NTS number ranges**

- 5.39 The consequences of Option 5 are subject a higher degree of uncertainty than any of the other options, because it is not clear how NTS SPs and TCPs would react, and because all NTS services (with the possible exception of freephone services) would be affected. The discussion in paragraph 5.21 of the options available to NTS SPs is also relevant here, the difference being that in this case the regulatory underpinning for revenue sharing would be removed on all 08 and 09 number ranges, for both ECS and non-ECS service providers.
- 5.40 It is very unlikely that 09 services would continue to be provided if existing revenue sharing arrangements were removed and other means of revenue collection were not established. Ofcom therefore considers it reasonable to assume that 09 NTS SPs would either adopt alternative micro payment mechanisms, or either alone or through their TCPs reach commercial agreements with OCPs to perpetuate the revenue share or in some cases exit the market.
- 5.41 In Ofcom's view, this option has a number of attractions, including the following:
- it could provide a greater incentive for NTS SPs to explore other types of payment mechanism, and could promote innovation in this area;
  - it would address concerns over fraud on 09 services by withdrawing the regulatory underpinning for revenue sharing on 09 numbers;
  - it would respond to concerns over consumer awareness and misleading advertising on the 084/087/09 number range; and
  - it would represent a further move in the direction of light touch regulation.
- 5.42 However, as with Option 4, it is by no means certain that these benefits would materialise in practice. Discussions with stakeholders indicate that the initial response of TCPs would be to begin negotiations with BT aimed at maintaining

the status quo i.e. reaching a commercial agreement under which BT would continue to bill on behalf of the TCP/SP for calls made to 08 and 09 numbers. Ofcom understands that BT's incentive to participate in these negotiations would be driven by its desire to avoid the risk of severely reduced call volumes on its legacy PSTN network, which is a risk that arises if the services currently available on NTS numbers are no longer economically viable for NTS service providers. However, as BT would no longer be under an obligation to retail these calls on behalf of the TCPs, it would almost certainly be looking to set higher prices for its retailing services. The end result could, in consequence, be simply an increase in the retail prices paid by consumers for these calls.

- 5.43 Alternatively, it is quite possible that one or more of the TCPs would fail to reach agreement with BT. In that case, the apparent failure of BT to provide retailing of those calls could be referred to Ofcom as a complaint or dispute. This in turn could lead to Ofcom having to consider whether it was possible or appropriate to impose some form of billing obligation on BT if SMP were found in a relevant market, suggesting that the BT NTS Call Origination Condition was the correct remedy in the first place.
- 5.44 Ofcom's preliminary view is that it would be premature to move to Option 5 at this stage. However, as the costs of alternative micro payment mechanisms fall and the platforms on which they are provided become more widely available, this option could merit further consideration. Ofcom's intention would be to monitor the development of micro payments (likely to be linked with growing access to and use of the internet) and keep the impact of the NTS regime on innovation in this area under review going forwards.

### **Initial conclusions – the preferred option**

- 5.45 In the light of the evaluation set out above and the additional comments in Annex 11, Ofcom's initial view (subject to the outcome of this consultation process) is that, whilst it does not necessarily resolve all of the problems stakeholders encounter with the current NTS regime, Option 2 performs best against the evaluation criteria and is its preferred option, subject to this consultation.
- 5.46 Under Option 2, the link for BT customers between the retail price of calls to 0845 and 0870 numbers and the standard local and national geographic call retail price would be removed. The pricing and interconnect model currently applied to 080, 0844, 0871 and 09 calls would also be applied to 0845 and 0870 calls. This would mean that TCPs would be able to choose the retail price for calls to their 0845 and 0870 numbers from BT customers. Ofcom's current thinking is that Ofcom would specify the designation that should apply to 0845 and 0870 numbers for BT customers, and that these ranges would be as follows:
- 0845 – up to and including 4p per minute or per call; and
  - 0870 – up to and including 8p per minute or per call.
- 5.47 Ofcom's initial view is that for Option 2 to deliver the anticipated benefits, BT would need to upgrade its interconnect and billing systems to allow TCPs to choose retail prices for 0845 and 0870 number blocks on a more granular basis than at present, and that this level of granularity would need to be at least at

the level of blocks of 10,000 numbers. For consistency and number conservation reasons, there is also an argument that such increased tariffing granularity should extend to the 0844, 0871 and 09 number ranges, although this would not be necessary to implement Option 2.

5.48 The reasons for Ofcom's preference for Option 2 are in summary as follows:

- Option 2 removes the link between 0845/0870 call charges and local and national geographic call charges on the BT network that causes consumer confusion and has become unsustainable for the Industry (thereby giving TCPs a much higher degree of revenue certainty for calls to these number ranges);
- Unlike Options 3, 4 and 5, Option 2 will promote the continued availability of a wide variety of information, content and communication services on 08 and 09 numbers, including PAYG internet access, to the benefit of UK consumers;
- Unlike the other options (in particular Option 1), Option 2 creates scope for retail price competition between organisations using 0845 and 0870 numbers which should lead to lower retail prices for many (although Ofcom acknowledges not all) of the services which are accessed through these number ranges; and
- Option 2 avoids the disruption to consumers and Industry of telephone number changes which would arise to varying degrees under Options 1, 3, 4 and 5.

5.49 Ofcom considers that Option 2 may exacerbate some of the existing problems that consumers encounter with the NTS regime. For example, instead of single retail prices for calls to 0845 and 0870 numbers, there will be a variety of prices, which could lead to more consumer confusion. Also, Option 2 does not address the growing consumer concern about the apparent increased use of NTS numbers by businesses and other organisations rather than geographic numbers for inbound contacts. Hence Ofcom's initial view is also that Option 2 should be combined with an appropriate selection of additional consumer protection measures, as set out in the next section of this document.

5.50 Under Option 2, there will clearly be additional costs to BT in upgrading its systems to allow more granular tariffing. Other OCPs may face similar costs if they wish to have a similar level of tariffing granularity to BT. Ofcom's expectation is that any increases in retail prices that ultimately result would be more than offset by decreases as a result of more retail price competition between NTS service providers.

*Question 10: Do stakeholders agree with Ofcom's initial view that Option 2 performs best against the evaluation criteria and should be implemented? If not, what other option(s) do stakeholders consider should be implemented and why?*

### **The relevant legal tests**

5.51 Annex 9 of this document explains the legal framework that governs the existing NTS regime in the UK. In order to implement Option 2, Ofcom will need to change the designations of the 0845 and 0870 ranges in the Plan. Annex 9 describes the legal tests that need to be satisfied if Ofcom wishes to change the Plan. (Ofcom's application form for 08 numbers would also need to be modified in the event that Ofcom decides to implement Option 2, and a similar

legal framework would apply. However, in the interests of brevity, Ofcom has not considered the application form for 08 numbers further here.)

- 5.52 In this document, Ofcom is not proposing the actual changes to the Plan required to implement Option 2, since Ofcom wishes to consult first on whether or not Option 2 is indeed the best option for the future of the NTS regime. However, in the event that Ofcom does decide that Option 2 should be implemented, Ofcom considers that the necessary legal tests would be satisfied as set out below.
- 5.53 In relation to Ofcom's general duties in carrying out its functions as set out in section 3 of the Act, implementing Option 2 would further the interests of citizens in relation to communications matters and consumers in relevant markets for the reasons set out in Section 5 and Annex 11 of this document. This includes for example promoting the availability of a wide variety of NTS services, creating scope for retail price competition for calls to 0845 and 0870 numbers, and by removing the potentially misleading linkage between the retail prices for 0845 and 0870 calls and local and national geographic calls for BT customers.
- 5.54 In implementing Option 2, Ofcom would also need to consider the Community obligations set out in section 4 of the Act. These include the requirement to promote competition in the provision of Electronic Communications Networks and Electronic Communications Services, the requirement to promote the interests of all persons who are citizens of the European Union and the requirement to promote access and interconnection. Ofcom has explained in Section 5 and Annex 11 of this document why it considers that implementing Option 2 would meet these requirements. In brief, Option 2 would increase scope for retail price competition, particularly on the 0845 and 0870 number ranges to the benefit of consumers, it would remove the potentially misleading link between the retail prices for 0845 and 0870 calls and local and national geographic calls on the BT network, it would promote the availability of a wide variety of NTS services and would provide more revenue certainty for TCPs.
- 5.55 To implement Option 2, Ofcom would need to satisfy the tests for modifying the Plan set out in section 60(2) of the Act. Ofcom considers that such a modification would satisfy the tests in that it would be:
- objectively justifiable, in that the proposed modifications (removal of the link between retail prices for 0845 and 0870 calls and local and national geographic calls for BT customers and to re-designate these number ranges without the link but including an upper ceiling) would be necessary to implement the proposed policy which has the effect of among other things promoting competition;
  - not unduly discriminatory, in that all Communications Providers eligible to apply for Telephone Numbers would be able to apply to Ofcom for an allocation of 0845 and 0870 numbers;
  - proportionate, in that the modification to the Plan would be the minimum revision to its provisions necessary to ensure that Option 2 could be implemented and that accurate information would be given to those applying for 0845 and 0870 numbers; and
  - transparent, in that the modification to the Plan and its effect would be set out and consulted upon at the next stage of the Ofcom consultation process on the future of the NTS regime.

5.56 In making the modification to the Plan to implement Option 2, Ofcom considers that it would be fulfilling its duty in section 63 of the Act (which refers to Ofcom's general duty as to telephone numbering functions), namely that Ofcom would be:

- securing the best use of appropriate numbers, in that the revised designations for the 0845 and 0870 ranges would continue to allow these numbers to be used for the provision of a wide variety of value-added services, whilst ensuring that there would be competitive pressure on retail prices for these services; and
- encouraging efficiency and innovation, in that the modification to the Plan would ensure that those applying for numbers understood the designations that will apply to their numbers. Also, Option 2 encourages efficiency as it does not involve number changes or the introduction of a new number range.

## Section 6

# Additional consumer protection measures

### Introduction

- 6.1 Ofcom has identified a number of additional measures that could be introduced under any of the five policy options described above, although the rationale for their implementation may be stronger under some scenarios than others. They are designed to address some of the consumer protection issues discussed in Section 3. Ofcom is proposing these additional measures for comment in light of Ofcom's view that interconnection arrangements for NTS calls (such as the various options set out above) are a comparatively blunt instrument for addressing some of the specific consumer protection issues set out in Section 3.
- 6.2 The additional consumer protection measures are summarised in Figure 12 and described in more detail below.

**Figure 12: Additional Measures to Address Consumer Protection Issues**

<p>Improving consumer price awareness:</p> <ul style="list-style-type: none"> <li>• Ofcom working with the Advertising Standards Authority (ASA) and the Committee of Advertising Practice (CAP) to produce guidance on advertising of 084/087 numbers; and</li> <li>• Ofcom working with the Central Office of Information (COI) to produce COI guidance to government departments on the appropriate use of NTS numbers by government departments.</li> </ul>
<p>Working with ICSTIS to control adult content and other higher risk services on 087 e.g. possibly changing the definition of Controlled Premium Rate Services ('CPRS')</p>
<p>OCPs to provide better call pricing information to consumers</p>
<p>TCPs to provide better call pricing information to NTS Service Providers</p>
<p>Pre-announcement of call prices at the start of all voice NTS calls and/or a "splash box" or other techniques to provide pricing information for data NTS calls</p>
<p>Bringing all revenue sharing services within the scope of ICSTIS regulation</p>

### ASA/CAP guidance

- 6.3 As part of this review, Ofcom has been in discussion with the ASA and the CAP regarding the advertising of 084 and 087 numbers. The ASA is the independent self-regulatory body for non-broadcast advertisements, sales promotions and direct marketing in the UK. It administers the British Code of Advertising, Sales

Promotion and Direct Marketing (the CAP Code) and also issues guidance to industry regarding the content of advertisements. Ofcom's discussions with the ASA/CAP have focused on the possibility of including provisions relating to 084 and 087 numbers in the guidance issued by the CAP. One option for example, would be guidance that advertisements containing 084 or 087 numbers should include pricing information if calls were likely to cost more, respectively, than a local or national geographic call. In addition, the guidance could make it clear that the ASA may regard it as misleading if call prices change significantly, shortly after an advertisement has been published.

- 6.4 The precise nature of the provisions that should be included in the ASA/CAP guidance will clearly depend on which of the five policy options described above is pursued. This avenue does, however, provide a potentially useful means of raising consumer awareness over the pricing of 084/087 calls, without necessarily bringing them within the ambit of regulation by ICSTIS.

### **COI Guidance to government departments**

- 6.5 The COI provides advice and support to public sector organisations on all aspects of communications. Amongst other things, it publishes 'better practice guidance' for Government contact centres (see the COI web site at <http://www.coi.gov.uk/ccg/>). Ofcom and the COI have discussed the use of 08 and 09 numbers by government departments. The COI has been working on an update of its 'better practice guidance', and Ofcom has been able to suggest some amendments to this guidance, aimed at:
- raising the awareness of contact centre managers of the cost of 084 and 087 calls;
  - encouraging the use of geographic numbers alongside 084/087 numbers, so that consumers have a choice; and
  - ensuring that publicity materials do not include any potentially misleading terms, such as 'local rate' or 'national rate', when describing the cost of calls.
- 6.6 Ofcom understands that the COI is planning to publish a new version of its contact centre guidance before the end of 2004, and that this version will include the amendments suggested by Ofcom. In the meantime, the COI has already circulated the amendments suggested by Ofcom in the form of an update to all those who have downloaded the COI's guidance to date.
- 6.7 If the present review leads to a change in arrangements for the pricing of NTS calls, some further amendment of the COI guidance may well be appropriate. Ofcom's intention would be to work with the COI to ensure that the guidance is as effective as possible in promoting consumer awareness of the cost of 084/087 calls, and the appropriate use of NTS numbers by public sector organisations.

### **Controlling adult content and other higher risk services on 087 numbers**

- 6.8 The issue here is that providers of adult content and other services of concern are currently able to avoid ICSTIS regulation by using 087 numbers (which are designated as 10p per minute or less for BT customers). As a result, they are under no obligation to meet the requirements of the ICSTIS Code of Practice (CoP) e.g. in relation to requirements for certain classes of NTS SP to decline

service to callers who appear to be under-age and the inclusion of pricing information in promotional material.

- 6.9 The services that ICSTIS regulates are known as Controlled Premium Rate Services (CPRS) and are defined in the PRS General Condition<sup>20</sup>. As currently defined CPRS are:

*“Controlled Premium Rate Services” means a Premium Rate Service (other than a Mobile Service, a Personal Numbering Service or a Radiopaging Service, or a service which is only accessed via an International Call) in respect of which either:*

- *the charge for the call by means of which the service is obtained or the rate according to which such call is charged is a charge or rate which exceeds 10 pence per minute; or*
- *the service is a Chatline Service.*

- 6.10 In Ofcom’s view, it would be appropriate to amend the definition of CPRS to include adult content and possibly other services of concern, regardless of the charge for accessing such services. All such services would, as a result, be brought within the scope of ICSTIS regulation. Ofcom has discussed this approach with ICSTIS, and the latter has indicated its support. In Ofcom’s initial view, ICSTIS’s remit should be extended in this way, whichever of the five options is selected for implementation.

### **OCPs to provide better pricing information to consumers**

- 6.11 General Condition 10 of the General Conditions of Entitlement currently requires CPs who provide access to end-users (i.e. OCPs) to provide information to their customers on the cost of calls. In practice, this is fulfilled for example by the publication of retail price lists on OCP web sites. Due to the large number of different services that OCPs typically make available at various different prices, it can be difficult for customers to find information about the prices for NTS calls in particular. Ofcom could consider modifications to General Condition 10 to introduce more obligations in the area of retail price transparency. However, in line with Ofcom’s stated regulatory principle of seeking the least intrusive regulatory mechanisms, Ofcom does not wish to introduce further formal obligations without having first explored appropriate alternatives. Ofcom believes that in addition to the existing provisions of General Condition 10, OCPs should be encouraged to produce a voluntary code of practice covering the provision of such information in the context of NTS calls. The NTS Focus Group is a forum that could oversee the development and implementation of such a code.

- 6.12 The case for an OCP code of practice would be especially strong under the first three of the pricing and interconnect options described earlier in this section. It may be somewhat weaker under Options 3, 4 and 5, to the extent that they encourage the use of alternative micro payment mechanisms that do not involve the OCPs.

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<sup>20</sup> Set out in the Schedule to the Notification under Sections 48(1) and 120(5) of the Communications Act 2003, given by the Director General of Telecommunications on 23 December 2003 in the document entitled ‘Conditions regulating premium rate services’ published 23 December 2003 (‘the PRS General Condition’). Available at Ofcom’s website at: [http://www.ofcom.org.uk/codes\\_guidelines/telecoms/netw\\_intercon\\_index/prs/prs\\_conditions.pdf](http://www.ofcom.org.uk/codes_guidelines/telecoms/netw_intercon_index/prs/prs_conditions.pdf)



## **TCPs to provide better pricing information to NTS service providers**

- 6.13 Given the nature of NTS calls, General Condition 10 does not extend to requiring TCPs to provide information to NTS SPs about the cost to consumers of calling those numbers. Ofcom does, however, believe that there would be merit in encouraging TCPs to produce a voluntary code of practice, designed to ensure that NTS SPs were fully aware of the retail prices of NTS calls and the possible alternatives available (for example, making TCPs aware that intelligent routing of calls is available on geographic numbers as well as NTS numbers). Once again, the NTS Focus Group is a forum that could oversee the development and implementation of such a code.
- 6.14 The case for a TCP code of practice is likely to be weaker under Options 3, 4 & 5, to the extent that they lead to the adoption of alternative micro payment mechanisms, because these alternative mechanisms are likely to give NTS SPs a more direct role in the price setting process.

## **Pre-announcement of call costs**

- 6.15 A more radical response to the problem of low consumer awareness of 084/087 retail prices would be pre-announcement of call prices (preferably free-to-caller) at the start of each call. From a technical perspective, there are two ways that announcements could potentially be implemented for voice calls:
- OCPs could play a recorded announcement at the beginning of each 084/087 voice call, telling the caller the price of the call. This method has the advantage that OCPs are best placed to know the call price since they charge the consumer; and
  - TCPs or NTS SPs could play a recorded announcement at the beginning of each 084/087 voice call, telling the caller the price of the call. This is already an ICSTIS requirement for certain CPRS services. The disadvantage with this method is that since the TCP/NTS SP doesn't always know which network the call originated on, the announcement may have to be generic and cannot always state the exact price that consumers will pay for the call.
- 6.16 For data calls, voice announcements may be inappropriate since the caller might not be able to hear the announcement and also because the announcement would probably interfere with the operation of the modem. However, Ofcom believes that alternative techniques could potentially be adopted to communicate call prices to consumers for data calls, particularly in the case of data calls to ISPs. Call prices could potentially be announced via a splash box that would appear on the caller's computer screen at the beginning of the call or via a notice on a compulsory home page that the caller's browser would be directed to using 'forced portal' technology. However the pricing information provided by ISPs might have to be more generic rather than network and/or end user specific since the ISP would not always be in a position to know the network that a particular call originated on. This would be a voluntary measure encouraged by Ofcom.
- 6.17 In Ofcom's opinion, the case for pre-announcements and splash boxes/forced portal would be stronger under Option 2 than under the other four options, because it is likely to lead to greater variability in the retail prices for 08 calls

(cf. Option 1), and would not encourage the adoption of other, more transparent payment mechanisms (cf. Options 3, 4 and 5).

*Question 11: Ofcom welcomes comments from Industry on the feasibility of (preferably free-to-caller) pre-announcement of the cost of voice calls to 084/087 numbers supported by technical descriptions and likely costs.*

*Question 12: Ofcom welcomes comments from Industry on the feasibility of informing callers of the cost of data calls to ISPs supported by technical descriptions and likely costs.*

### **Bringing all revenue sharing services on 08/09 within the scope of ICSTIS regulation**

6.18 A similarly radical alternative would be to extend the CPRS definition by removing the current 'above 10 pence per minute' retail price threshold. This would bring all 084 and 087 numbers within the ambit of ICSTIS regulation<sup>21</sup>. It would not necessarily mean that all 08 services would be subject to the same requirements as are currently applied to services on the 09 range; Ofcom proposes that it should be up to ICSTIS, subject to Ofcom approval to consider how best to regulate 08 services, and to propose amendments to its CoP accordingly. Ofcom would be involved in the process, both in amending the CPRS definition and in approving any associated changes to the ICSTIS CoP. A variant of this measure would be to lower (but not remove) the retail price threshold in the CPRS definition, say to 'above 5 pence per minute' thus bringing some but not all 08 numbers within the ambit of ICSTIS regulation.

6.19 The case for extending the scope of ICSTIS regulation in this way is likely to be stronger under Option 2 than under any of the other options, essentially for the same reason as given in relation to pre-announcements and splash-boxes.

*Question 13: What comments do stakeholders have on the consumer protection measures that Ofcom has defined, in particular which measures or combination of measures should be implemented? Do you think additional consumer protection measures are required?*

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<sup>21</sup> Services provided on 08 numbers would be captured by ICSTIS regulation provided that they fell within the definition of 'Premium Rate Service' as defined in Section 120 of the Act. It is important to note that this definition is fairly wide and is not dependant on a 'premium' charge being made to the end-user.

## Section 7

# Implementation issues and next steps

## Introduction

- 7.1 The closing date for responses to this consultation is 7 January 2005. Guidance on how to respond is set out at Section 8. Following receipt and consideration of responses, Ofcom will set out its decision as to the NTS option to be implemented in a Statement likely to be published in calendar Q2 2005. It is important to note however that the Statement will simply explain Ofcom's policy decision. Ofcom is likely to need to take additional steps, including undertaking further consultation, to implement the legal framework for the chosen policy option. Industry systems and processes may then also need to be upgraded to give effect to the new NTS regime.
- 7.2 The purpose of this section is to set out at a practical level the steps that Ofcom might need to take to create the legal framework for its preferred option, and (for reference) the other options set out in this consultation document. In each case, given that the precise details of each of the options have not at this stage been fully established, the list of measures is indicative, should not be considered necessarily to be exhaustive and is subject to change.

## Next stages in the market review process

- 7.3 As explained in paragraph 2.21, Ofcom has initiated a review of the NTS call termination market in a separate document likely to be published at the same time as this document. Ofcom's market review document represents an initial consultation with national stakeholders, during which Ofcom is gauging the opinions of UK stakeholders on Ofcom's initial views on this market. Ofcom has informally provided the European Commission with a copy of its market review document.
- 7.4 The next stage of the market review process will be for Ofcom to publish a second consultation document representing Ofcom's formal notification of its proposals to the Commission.
- 7.5 As the third and final stage of the market review process, Ofcom will, following the second consultation on the market review, publish a final statement setting out its findings including, where appropriate, imposing any remedies.

## Implementation of the preferred option: Option 2 (Extended Retail Price Competition)

- 7.6 Ofcom considers that it would need to take the following steps to implement the regulatory framework for Option 2:
- change the designations of 0845/0870 in the Plan (minimum consultation period: 1 month); and
  - change the application form for 08 numbers to reflect the new designations of 0845/0870 in the Plan (minimum consultation period: 1 month).
- 7.7 Ofcom would also need to consider how a public communications plan might be implemented to inform consumers that the link between geographic and

non-geographic retail prices for 0845/0870 calls was being removed and replaced with a series of different price points.

- 7.8 Clearly under Option 2 BT would also need to upgrade its billing systems to allow TCPs to set retail prices for NTS numbers at a lower level of granularity (i.e. lower than the 100k number block level generally in place at the moment). Other OCPs would also need to make similar changes if they wished to be able to set retail prices for NTS numbers at the same level of granularity as BT. The timescales and costs of these changes in the case of BT are set out at Annex 13.

*Question 14: Do stakeholders agree with Ofcom's assessment of the steps Ofcom would need to take to implement Option 2? Do stakeholders consider that any steps are missing or unnecessary?*

*Question 15: What comments do stakeholders have about the need for and content of a public communications plan to inform consumers about changes in the retail pricing arrangements for 0845 and 0870 calls under Option 2? What roles should Ofcom, the Industry and other groups have in implementing this plan?*

- 7.9 During the pre-consultation phase of Ofcom's work on the NTS regime, a group of CPs drew Ofcom's attention to a number of detailed implementation issues that they considered Ofcom would need to address in the event that Ofcom decided to proceed with Option 2<sup>22</sup>.
- 7.10 The focus of Ofcom's work on the NTS Framework Re-examination has necessarily been the future of the NTS regime at a strategic level, and Ofcom has not had the opportunity to discuss these detailed implementation issues at any length with stakeholders. In addition, Ofcom considers that many are issues that are not new since they also arise under the current NTS regime and may be best addressed by Ofcom and the Industry via 'business as usual' channels.
- 7.11 Nevertheless, Ofcom considers that it is useful to list these detailed implementation issues here (to the extent that they are not already mentioned elsewhere in this document) and to seek stakeholders' views on how these issues might be resolved in the best interests of Industry and consumers.
- 7.12 The issues are:
- the network tariff gradient;
  - new price points and timescales for their introduction;
  - what opting into discounts means;
  - responsibility for payment of transit charges; and
  - long/short call duration mechanism for calculating 0845 interconnection payments.

### **The network tariff gradient**

- 7.13 The network tariff gradient is a mechanism by which BT is able to apportion network costs to calls carried at different times of the day and week (i.e. the day, evening and weekend charging periods). Changes to the network tariff

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<sup>22</sup> The CPs noted that some of the issues identified would be common to a number of the other options Ofcom has set out in this document and would not necessarily be specific to Option 2.

gradient by BT will cause changes in the terminating payments to TCPs. Currently the network tariff gradient is linked to BT's retail tariff gradient for all local and national calls. In the event that Option 2 is implemented, CPs are keen to understand how frequently and by what methodology BT would seek to change the network tariff gradient in future.

### **New price points and timescales for their introduction**

- 7.14 CPs have expressed a preference for a limited number of different retail price points for 0845 and 0870 calls in the event that Option 2 is implemented, to maximise clarity for consumers and to minimise the costs of introducing and maintaining multiple price points for CPs. Ofcom can see the advantages of trying to limit the proliferation of different retail price points, but is unclear of the objective basis on which a 'permitted' range of retail price points could be arrived at or indeed enforced if this were required.
- 7.15 CPs have also stated that they consider that, under the existing 0844/0871 model there is currently a mismatch in timescales. They consider that BT is able to make retail price changes with only 56 working days notice compared with 45 working days to implement a new number range on an existing price point and 85 working days to implement a new number range on a new price point for 0844/0871. As a result these CPs feel that any new model adopted for 0845 and 0870 needs to address these types of anomalies to ensure a level playing field in their view. Ofcom has not considered this issue in detail, although Ofcom would be interested to hear stakeholders' views, including whether there is any scope for these lead times for the introduction of new number ranges and retail price points to be reduced.

### **What opting into discounts means**

- 7.16 Under Option 2, Ofcom envisages that TCPs would have the ability not only to set the retail price (in accordance with the Plan) for blocks of 0845 and 0870 numbers which have been allocated to them by Ofcom, but also to opt their number blocks into or out of BT retail discount schemes. CPs have expressed a desire for clarity about which of the various BT retail discount schemes are applicable, in the event that a TCP decides to opt into BT's discounts.
- 7.17 BT's Retail Discount Factor (RDF) is the mechanism by which BT calculates the reduction in terminating payments made by BT to TCPs to take account of the reduced revenue BT receives from customers where NTS calls are subject to BT's retail discount schemes. CPs have also asked that the data that BT uses to calculate the RDF and the frequency with which BT makes changes to the RDF be clarified.
- 7.18 Ofcom considers that neither of these issues is new, since they both arise under the current NTS regime in relation to 084 and 087 numbers.
- 7.19 In relation to clarity about precisely which BT retail discount schemes are applicable in the event that a TCP opts into discounts, Ofcom has recently resolved a dispute in which this issue was addressed at an operational level in terms of which BT discount schemes apply today (Dispute between BT and various operators about NTS discounts [http://www.ofcom.org.uk/bulletins/comp\\_bull\\_index/comp\\_bull\\_ccases/closed\\_all/cw\\_766/final\\_dec/?a=87101](http://www.ofcom.org.uk/bulletins/comp_bull_index/comp_bull_ccases/closed_all/cw_766/final_dec/?a=87101) ). Ofcom considers that the reasoning used by Ofcom in that dispute resolution as to which discount schemes are applicable

when a TCP opts into BT discounts would be likely to continue to apply under Option 2. Ofcom considers it would be highly unlikely to be practical to oblige BT to permit TCPs to opt into different levels of BT retail discounts – and indeed Ofcom is not clear that TCPs would actually seek this functionality. Broader TCP concerns for example about uncertainties created by changes in the RDF and the ‘fairness’ of the RDF as a matter of principle seem to Ofcom to be addressed by providing TCPs with the ability to opt out of discounts on all 084 and 087 number ranges under Option 2.

- 7.20 The methodology used to calculate the RDF, and the frequency with the RDF is changed seem to Ofcom to be very detailed issues that might best be pursued by Industry discussions, for example through the NTS Focus Group.

### **Responsibility for payment of transit charges**

- 7.21 Current practice regarding the payment of transit charges on NTS calls varies by number range, with the OCP currently paying transit charges for 0844/0871 calls, and the TCP currently paying transit charges for all other NTS calls types.
- 7.22 Under Option 2, the retail pricing and interconnection arrangements for 0845/0870 calls would become very similar to those for 0844/0871 calls, so it could be viewed as inconsistent to have different practical arrangements for the payment of transit charges. Ofcom would appreciate comments from stakeholders on whether there is a need for consistency at a practical level in the transit charge payment arrangements for NTS calls under Option 2. If so, Ofcom would welcome comments on whether it is the OCP (or TCP) that should be considered to be responsible for the calls, to the extent that the OCP (or TCP) should pay transit charges on all NTS calls, and why.

### **Long/short call duration mechanism for calculating 0845 interconnection payments**

- 7.23 The NTS Focus Group has been discussing the issue of the minimum retail call charge for calls made by BT customers, and whether this should be reflected in a minimum termination payment from BT to TCPs for calls to 0844 and 0871 numbers. Under the current NTS regime, this issue also arises for calls to 0845 numbers, and has been addressed using an estimation technique based on long and short call durations.
- 7.24 Under Option 2, retail pricing and interconnection arrangements for 0845/0870 calls would become very similar to those that exist today on the 0844/0871 ranges. Some CPs have therefore suggested that minimum termination payments for 0845/0870 calls would also be desirable (rather than today’s current long/short call duration arrangements) to address BT’s minimum retail call charge for calls to these numbers. Ofcom welcomes comments on the pros and cons of this suggestion and other ways the issue might be tackled.

*Question 16: What comments do stakeholders have on the following issues in the event that Option 2 is implemented?*

- *the network tariff gradient;*
- *new price points and timescales for their introduction;*
- *what ‘opting into’ discounts means;*
- *responsibility for payment of transit charges; and*

- *the long/short call duration mechanism for calculating 0845 interconnection payments.*

### **Implementation of other options**

- 7.25 In this consultation document Ofcom is seeking the views of stakeholders on all the options presented, as well as any suggestions for additional options that stakeholders may have. Ofcom's view as to the preferred option is subject to change in the light of responses to this consultation and any further Ofcom analysis. It is therefore useful to set out in broad terms how the regulatory framework for the other options described in this consultation document would be created if necessary.
- 7.26 Some Ofcom implementation steps could be considered common to all options and will not be repeated in the option-by-option assessments below. These include:
- completion of the market review process for the NTS call termination market being carried out in conjunction with the NTS policy review; and
  - implementation of any additional measures for consumer protection identified in Section 6, for example changes to the regulatory definition of 'controlled premium rate service' to capture adult content and other higher risk services regardless of retail price.

### **Implementation of Option 1 (The Status Quo)**

- 7.27 Ofcom would not need to take any steps to implement Option 1.

### **Implementation of Option 3 (No Regulated Revenue Share on 0845/0870)**

- 7.28 Options 3, 4 and 5 all envisage some parts of (or all) of the 08 and 09 number ranges being removed from the scope of the current NTS regulation. The question therefore arises as to what the retail pricing and interconnection arrangements should be for calls to these numbers in the event that the current NTS regulation no longer applies.
- 7.29 To the extent that removing these number ranges from NTS regulation might present a new product or services market (or might materially alter conditions in a market that Ofcom or Oftel had previously defined) Ofcom considers that it would be difficult, from an evidential perspective, to immediately carry out a market review on the new 'deregulated' 08 and 09 services or a new review of an existing market. This is because any review of a market must necessarily take into account existing conditions in the market. Ofcom considers that this would be difficult until market conditions had been established following the removal of the relevant numbers from the existing NTS regulation. Therefore, in the following descriptions of the steps required to implement the new regulatory framework for Options 3, 4 and 5, carrying out a market review for the new 08 and 09 services (or a new review of an existing market) should not be considered to be simultaneous with the other steps listed.
- 7.30 Ofcom considers that it may need to take the following steps to implement the regulatory framework for Option 3:
- change the designations of the 0845/0870 ranges and potentially the 0844/0871 ranges in the Plan. Possibly introduce a new 08XX range for ECS providers;
  - consider changing the Plan to introduce a new 08XX range for not-for-profit helplines (see paragraph 4.40);

- change the application form for 08 numbers to reflect the new designations of 0845/0870/0844/0871 and any new 08XX range(s) in the Plan (minimum consultation period: 1 month); and
- consider revisiting the existing fixed retail services and fixed geographic call termination market reviews or conducting new market reviews to consider into which existing or new market(s) the 'new' 0845/0870 services fall, whether there is SMP in those markets and what new, if any, or additional remedies might be appropriate as a consequence.

7.31 Ofcom would also need to consider how a public communications plan might be implemented to inform consumers inter alia that the link between geographic and non-geographic retail prices for 0845/0870 calls was being removed and that the prices for 0845/0870 calls were potentially changing.

### **Implementation of Option 4 (No Regulated Revenue Share on 084/087)**

7.32 Ofcom considers that it may need to take the following steps to implement the regulatory framework for Option 4:

- change the designations of the 084/087 ranges in the Plan (minimum consultation period: 1 month);
- also consider changing the Plan to introduce a new 08XX range for not-for-profit helplines (see paragraph 4.40);
- change the application form for 08 numbers to reflect the new designations of 084/087 numbers and any new 08XX range(s) in the Plan (minimum consultation period: 1 month); and
- consider revisiting the existing fixed retail services and fixed geographic call termination market reviews or conducting new market reviews to consider into which existing or new market(s) the 'new' 084/087 services may fall, whether there is SMP in those markets and what new or additional remedies might be appropriate as a consequence.

7.33 Ofcom would also need to consider how a public communications plan might be implemented to inform consumers inter alia that the link between geographic and non-geographic retail prices for 0845/0870 calls was being removed and that the prices for 084/087 calls were potentially changing.

### **Implementation of Option 5 (No Regulated Revenue Share on any NTS Numbers)**

7.34 Ofcom considers that it may need to take the following steps to implement the regulatory framework for Option 5:

- withdraw the BT NTS Call Origination Condition – or consider modifying it in relation to 080 call origination if 080 calls are to remain free-to-caller on the BT network (minimum consultation period: 1 month);
- also consider changing the Plan to introduce a new 08XX range for not-for-profit helplines (see paragraph 4.40);
- change the designations of the 080/084/087/09 ranges in the Plan (minimum consultation period: 1 month);
- change the application forms for 08 and 09 numbers to reflect the new designations in the Plan (minimum consultation period: 1 month); and
- consider revisiting the existing fixed retail services and fixed geographic call termination market reviews or conducting new market reviews to consider into which existing or new market(s) the 'new' 084/087/09 services fall,



whether there is SMP in those markets and what new or additional remedies might be appropriate as a consequence.

- 7.35 Ofcom would also need to consider how a public communications plan might be implemented to inform consumers *inter alia* that the link between geographic and non-geographic retail prices for 0845/0870 calls was being removed and that the prices for 084/087/09 calls were potentially changing.

*Question 17: Do stakeholders agree with Ofcom's assessment of the steps Ofcom would need to take to implement Options 1, 3, 4 and 5? Do stakeholders consider that any steps are missing or unnecessary?*

### Scope for phasing of options

- 7.36 From pre-consultation discussions, Ofcom is aware of a desire amongst some Industry stakeholders for a 'breathing space' if Ofcom were minded to implement any of the more radical changes to the regulatory framework for NTS described in this consultation document. Some Industry stakeholders were of the view that this could simply entail a delay in implementing Options 3, 4 or 5 if Ofcom were minded to choose one of these options. Other Industry stakeholders wanted Ofcom to consider small changes to the existing NTS regime to cushion the Industry (in particular TCPs) from the current terminating revenue uncertainty associated with 0845 and 0870 calls, whilst Ofcom was in the process of implementing any longer-term options.
- 7.37 Ofcom does not consider that small changes to the existing regime are possible as an interim measure. Such changes would actually be significant, and would be likely to constitute separate policy options in themselves. Ofcom has set out in this document a set of five policy options, which Ofcom believes represents the major policy variants available. Ofcom is nevertheless happy to receive comments from stakeholders as to additional policy options Ofcom should consider (see Question 9).
- 7.38 Ofcom has however analysed the phasing of the options set out in this consultation document. Ofcom has considered what combinations of options might be both feasible and rational. Ofcom's preliminary views are:
- Option 1 followed by any other option simply represents a delay in the implementation of the other option – thereby giving a breathing space, giving the Industry notice of the need to migrate to new number ranges if necessary, and requiring only one message to be communicated to consumers. It seems likely however that the timescales required for Ofcom and the Industry to implement anything other than Option 1 mean that there is *de facto* plenty of time for the Industry to prepare for change without the need for formal phasing of options by Ofcom; and
  - Option 2 followed by Option 5 would also represent a coherent combination of policy options. This policy combination would allow for many of the current issues with the NTS regime to be addressed in the existing market environment through the implementation of Option 2. It would also anticipate the eventual development of sufficiently cheap and widespread micro payment mechanisms as competitive alternatives to NTS to allow Ofcom ultimately to withdraw from specific regulation of NTS origination. Ofcom considers that this is an attractive combination of policy options, but notes that this could simply represent a vision for the future, with no need for Ofcom to commit at this stage to this particular phasing of options.

- 7.39 Apart from these cases, no other option combinations appeared feasible to Ofcom as they did not represent coherent policy progression, required multiple number migrations and/or required multiple change messages to be communicated to consumers. Ofcom would however welcome stakeholders' views on what scope there may be for phasing of changes to the current NTS regime, whether based on the options Ofcom has set out in this consultation document or any other policy options that stakeholders may wish to propose.

*Question 18: What views do stakeholders have on combinations of policy options (either as presented in this document or otherwise suggested by stakeholders) that Ofcom should consider for phased changes to the current NTS regime, and what would be the advantages of this phasing?*

## Section 8

# Responding to this consultation

### How to respond

- 8.1 Ofcom invites written views and comments on the issues raised in this document, to be made by **5pm on 7 January 2005**.
- 8.2 Ofcom strongly prefers to receive responses as e-mail attachments, in Microsoft Word format, 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 2) to indicate whether or not there are confidentiality issues. The cover sheet can be downloaded from the 'Consultations' section of our website.
- 8.3 Please can you send your response to [nts@ofcom.org.uk](mailto:nts@ofcom.org.uk).
- 8.4 Responses may alternatively be posted or faxed to the address below, marked with the title of the consultation.

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Tel: 020 7783 4175  
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- 8.5 Note that we do not need a hard copy in addition to an electronic version. Also note that Ofcom will not routinely acknowledge receipt of responses.
- 8.6 It would be helpful if your response could include direct answers to the questions asked in this document, which are listed together at Annex 3. It would also help if you can explain why you hold your views, and how Ofcom's proposals would impact on you.

### Further information

- 8.7 If you have any questions about the issues raised in this consultation, or need advice on the appropriate form of response, please contact Geoff Brighton on 020 7783 4175.

### Confidentiality

- 8.8 Ofcom thinks 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](http://www.ofcom.org.uk), ideally on receipt (when respondents confirm on their response cover sheet that this is acceptable).
- 8.9 All comments will be treated as non-confidential unless respondents specify that part or all of the response is confidential and should not be disclosed.

Please place any confidential parts of a response in a separate annex, so that non-confidential parts may be published along with the respondent's identity.

- 8.10 Ofcom reserves its power to disclose certain confidential information where this is necessary to fulfil its functions, although in practice it would do so only in limited circumstances.
- 8.11 Please also note that copyright in responses will be assumed to be assigned to Ofcom unless specifically retained.

### **Next steps**

- 8.12 Following the end of the consultation period, Ofcom intends to publish a statement around the first calendar quarter of 2005.
- 8.13 Please note that you can register to get automatic notifications of when Ofcom documents are published, at [http://www.ofcom.org.uk/static/subscribe/select\\_list.htm](http://www.ofcom.org.uk/static/subscribe/select_list.htm).

### **Ofcom's consultation processes**

- 8.14 Ofcom is keen to make responding to consultations easy, and has published some consultation principles (see Annex 1) which it seeks to follow, including on the duration of consultations
- 8.15 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](mailto: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, whose views are less likely to be obtained in a formal consultation.
- 8.16 If you would like to discuss these issues, or Ofcom's consultation processes more generally, you can alternatively contact Philip Rutnam, Partner, Competition and Strategic Resources, who is Ofcom's consultation champion:

Philip Rutnam  
Ofcom  
Riverside House  
2A Southwark Bridge Road  
London SE1 9HA  
Tel: 020 7981 3585  
Fax: 020 7981 3333  
E-mail: [philip.rutnam@ofcom.org.uk](mailto:philip.rutnam@ofcom.org.uk)

## Annex 1

# Ofcom's consultation principles

**Ofcom has published the following seven principles that it will follow for each public written consultation:**

### **Before the consultation**

- A.1.1 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**

- A.1.2 We will be clear about who we are consulting, why, on what questions and for how long.
- A.1.3 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 version for smaller organisations or individuals who would otherwise not be able to spare the time to share their views.
- A.1.4 We will normally allow ten weeks for responses, other than on dispute resolution.
- A.1.5 There will be a person within Ofcom who 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. This individual (who we call the consultation champion) will also be the main person to contact with views on the way we run our consultations.
- A.1.6 If we are not able to follow one of these principles, we will explain why. This may be because a particular issue is urgent. If we need to reduce the amount of time we have set aside for a consultation, we will let those concerned know beforehand that this is a 'red flag consultation', which needs their urgent attention.

### **After the consultation**

- A.1.7 We will look at each response carefully and with an open mind. We will give reasons for our decisions and will give an account of how the views of those concerned helped shape those decisions.

## Annex 2

# Consultation response cover sheet

- A2.1 In the interests of transparency, we will publish all consultation responses in full on our website, [www.ofcom.org.uk](http://www.ofcom.org.uk), as soon as possible after the consultation period has ended, unless a respondent specifies that all or part of their response is confidential. We will also refer to the contents of a response when explaining our decision, unless we are asked not to.
- A2.2 We have produced a cover sheet for responses (see below) and would be very grateful if you could send one with your response. This will speed up our processing of responses, and help to maintain confidentiality by allowing you to state very clearly what you don't want to be published. We will keep your completed cover sheets confidential.
- A2.3 We strongly prefer to receive responses in the form of a Microsoft Word attachment to an email. Our website therefore includes an electronic copy of this cover sheet, which you can download from the 'Consultations' section of our website.
- A2.4 Please put any confidential parts of your response in a separate annex to your response, so that they are clearly identified. This can include information such as your personal background and experience. If you want your name, 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:** Number Translation Services: Options for the Future

**To (Ofcom contact):** Geoff Brighton

**Name of respondent:**

**Representing (self or organisation/s):**

**Address (if not received by email):**

### CONFIDENTIALITY

**What do you want Ofcom to keep confidential?**

- |                      |                          |   |                          |
|----------------------|--------------------------|---|--------------------------|
| Nothing              | <input type="checkbox"/> | Name/contact details/<br>job title          | <input type="checkbox"/> |
| Whole response       | <input type="checkbox"/> | Organisation                                | <input type="checkbox"/> |
| Part of the response | <input type="checkbox"/> | If there is no separate annex, which parts? |                          |

If you want part of your response, your name or your organisation to be confidential, 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)?

Yes

### DECLARATION

I confirm that the correspondence supplied with this cover sheet is a formal consultation response. It can be published in full on Ofcom's website, unless otherwise specified on this cover sheet. If I have sent my response by email, Ofcom can disregard any standard email text about not disclosing email contents and attachments.

Name

Signed (if hard copy)

## Annex 3

# Consultation questions

### Questions relating to Section 3 – Issues and Objectives

Question 1: In relation to call centre waiting times, Ofcom would welcome stakeholders' views, supported by evidence if available, as to whether the revenue share available on NTS numbers provides sufficient incentive to encourage NTS Service Providers to artificially extend call durations or indeed whether this has actually occurred?

Question 2: Do stakeholders think that Ofcom has captured all of the main issues that stakeholders have with the current NTS regime? Are there any other key issues that should be taken into consideration in this consultation?

Question 3: Do stakeholders agree with Ofcom's policy objectives?

Question 4: When evaluating the options, what weight should Ofcom give to the various policy objectives, bearing in mind the trade-offs that may exist between them?

### Questions relating to Section 4 – Pricing and interconnect options

Question 5: Ofcom welcomes stakeholders' views on what (if any) special provisions should be made to help non-profit organisations to obtain preferential rates for receiving inbound NTS calls should Options 3, 4, or 5 be introduced?

Question 6: If Option 3 were implemented do stakeholders think non-ECS NTS Service Providers that are already using 0844 and 0871 numbers should be allowed to continue to benefit from the regulatory underpinning for revenue sharing for these number ranges?

Question 7: If Option 5 were implemented, do you think that Ofcom should retain the BT NTS Call Origination Condition for freephone calls? If not, what alternative basis should be applied to BT's call origination charges for freephone calls?

Question 8: In connection with Options 3, 4 and 5, do stakeholders think that it would be appropriate for Ofcom to seek to prevent revenue sharing on the relevant NTS number ranges in order to prevent CPs from negotiating commercial revenue sharing arrangements if the current regulatory support for revenue sharing is removed?

Question 9: Ofcom has identified 5 options for evaluation. What other options do stakeholders think that Ofcom should consider?

### Questions relating to Section 5 – Assessment of pricing and interconnect options

Question 10: Do stakeholders agree with Ofcom's initial view that Option 2 performs best against the evaluation criteria and should be implemented? If not, what other option(s) do stakeholders consider should be implemented and why?



## **Questions relating to Section 6 – Additional consumer protection measures**

Question 11: Ofcom welcomes comments from Industry on the feasibility of (preferably free-to-caller) pre-announcement of the cost of voice calls to 084/087 numbers supported by technical descriptions and likely costs.

Question 12: Ofcom welcomes comments from Industry on the feasibility of informing callers of the cost of data calls to ISPs supported by technical descriptions and likely costs.

Question 13: What comments do stakeholders have on the consumer protection measures that Ofcom has defined, in particular which measures or combination of measures should be implemented? Do you think additional consumer protection measures are required?

## **Questions relating to Section 7 – Implementation issues and next steps**

Question 14: Do stakeholders agree with Ofcom's assessment of the steps Ofcom would need to take to implement Option 2? Do stakeholders consider that any steps are missing or unnecessary?

Question 15: What comments do stakeholders have about the need for and content of a public communications plan to inform consumers about changes in the retail pricing arrangements for 0845 and 0870 calls under Option 2? What roles should Ofcom, the Industry and other groups have in implementing this plan?

Question 16: What comments do stakeholders have on the following issues in the event that Option 2 is implemented?

- the network tariff gradient;
- new price points and timescales for their introduction;
- what 'opting into' discounts means;
- responsibility for payment of transit charges; and
- the long/short call duration mechanism for calculating 0845 interconnection payments.

Question 17: Do stakeholders agree with Ofcom's assessment of the steps Ofcom would need to take to implement Options 1, 3, 4 and 5? Do stakeholders consider that any steps are missing or unnecessary?

Question 18: What views do stakeholders have on combinations of policy options (either as presented in this document or otherwise suggested by stakeholders) that Ofcom should consider for phased changes to the current NTS regime, and what would be the advantages of this phasing?

## Annex 4

# History of NTS

### What is NTS?

A4.1 NTS calls are used for the provision of a variety of value-added services, for example access to call centres, information services and pay-as-you-go dial-up internet access. In this Annex, "NTS calls" refers to calls to the following numbers: Special Service numbers including freephone (0500<sup>23</sup>/0800/0808), special basic rate (0844/0845) and special higher rate (0870/0871) and Premium Rate Services ("PRS") currently provided under 090 and 091 number ranges. Within these ranges calls to 0844 04 numbers for Surftime internet access services and calls to 0808 99 for Flat Rate internet Access Call Origination ("FRIACO"), are excluded.

### Why was NTS created?

A4.2 What has now become known as the NTS regime was first established in 1996. The formal mechanism by which the NTS regime was created was an Addendum to Oftel's first determination of BT's wholesale charges under ICAS (InterConnection Accounting Separation) rules. This was the determination of "*Interim charges for BT's Initial Standard Services for year ending 31 March 1996*" published in January 1996 ("the 1996 Determination"). Addendum 8 to this determination, which detailed how NTS call revenues should be shared, has itself become known as the original "NTS Determination". This document was published in hard copy only and was never placed on Oftel's website. The NTS regime was, however, confirmed in an addendum to each subsequent determination of BT's Standard Services, an example of which can be found on the Oftel legacy archive within Ofcom's website at:

[http://www.ofcom.org.uk/static/archive/oftel/publications/1995\\_98/pricing/btcha498.htm](http://www.ofcom.org.uk/static/archive/oftel/publications/1995_98/pricing/btcha498.htm)

A4.3 In that document the relevant section is Addendum 5.

A4.4 NTS itself was created to encourage the growth in the provision of access to new and cheaper, value added services via the telephone. Through the use of non-geographic NTS numbers, calls could be made to anywhere in the UK at what were then local and national call rates without the provider of the service having to pay to receive the calls. This was achieved by transferring the retail profit from retail call charges from the OCP to the TCP who, in turn, could choose to share some of this profit with their service provider customers.

A4.5 Initially NTS was largely used for telemarketing and information services. Some dial-up internet services were available but these were usually subscription services accessed by dialling 0845 numbers. In late 1998, however, Freeserve launched its pay-as-you-go (PAYG) internet access service, using 0845 numbers, where for a local call charge users could access the internet without having to pay a separate subscription to their

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<sup>23</sup> 0500 numbers are no longer available for new allocations but are listed in the Annex to the Numbering General Condition 17

ISP. This resulted in sudden and dramatic growth in NTS call volumes as increasing numbers of ISPs sought to offer similar 0845 internet access. More recently the introduction of flat rate narrowband services using FRIACO and the availability of Broadband have changed the way the internet is accessed but residual demand for PAYG services remains fairly strong.

- A4.6 Where growth is being seen in NTS call volumes is for its use by call centres, and for access to low cost international calls (international call through) and an increasing variety of information and entertainment/adult services (see Annex 5).

### The NTS formula

- A4.7 In its initial form the NTS regime was based on a relatively simple model, known as the NTS Formula, which read as:

***TCP keeps  $P - D + C$***

***BT keeps  $D - C$***

where

***P*** is the **actual** retail price charged by the OCP to the customer;

**C** is the pence per minute charge for conveyance over a single tandem segment of BT's network (multiplied by the number of minutes of the call) plus an uplift to allow for retail costs incurred by BT in handling these calls (known as the 'retail uplift');

**D** is the Deemed Retail Price for the call as defined in Addendum X (to the relevant direction).

### Policy decisions

- A4.8 The NTS formula contained a number of very broad assumptions owing to technical limitations in networks and billing systems at the time. Since 1996 these assumptions have gradually been refined but this, in turn, has led to a series of disputes between BT, as the main originator of these calls, and other NTS CPs, which Ofcom's predecessor Oftel was called upon to resolve. The various policy decisions, made in response to these disputes and growing concerns over the future viability of NTS, particularly for PAYG internet on 0845, led to the evolution of the NTS framework that existed at the time of the introduction of the Communications Act in 2003.

- A4.9 Key areas of the NTS regime in which Oftel and Ofcom have developed policy over the years since 1996 are:

- BT's NTS discounts;
- BT's NTS conveyance charges:

- using the Network Charge Differential ('NCD') methodology; and
- using the Inter-Network Call Accounting/Calling Line Identity ("INCA/CLI") methodology;
- retail pricing and numbering arrangements for NTS calls:
  - Of tel's December 1999 statement "*Statement on the Relationship between Interconnection Charges and Retail Prices for Number Translation Services*" ("the 1999 NTS Statement") which is available at:
    - <http://www.ofcom.org.uk/static/archive/oftel/publication/1999/consumer/nts1299.htm> ; and
  - Ofcom's April 2004 Statement and Further Statutory Consultation "*Calls to 0845 and 0870 numbers: review of retail price and numbering arrangements*" ("the 2004 NTS Statement") which is available at Ofcom's website at:
    - <http://www.ofcom.org.uk/consultations/past/0845/0845.pdf>; and
- BT's NTS retail uplift.

## NTS discounts

- A4.11 Over the period from 1 April 1995 to 30 September 1997, BT's wholesale interconnection charges were determined by Of tel. Within these Of tel also determined BT's NTS call origination charge (set at single tandem for all TCPs), the NTS Retail Uplift (see below) and average retail discounts that should be applied to BT's local and national call retail prices for NTS calls.
- A4.12 From 1 October 1997 BT's wholesale charges became subject to Network Charge Controls ("NCC") which grouped the various products into 'baskets' according to the level of competition BT faced and applied RPI-X price caps to each. NTS wholesale charges remained regulated but were exempted from the NCC leaving BT free to adjust its charges as its costs changed.
- A4.13 The 1996 Determination set BT's NTS discounts at an average of 6.5% for all (local and national rate) calls. This was increased by Of tel to 7.5% the following year and remained at this level until 1999 when Of tel resolved the initial NTS discounts dispute arising out of BT's first attempt to revise its discounts to take account of changes in the level and consumer take up of discount packages. The resultant determination increased the average discounts in two steps, to 11.45% and 11.75%. After a second dispute brought in 2001 Of tel increased the average discounts for 0845 calls to 14.8% but improved information from BT revealed that the discount BT applied to 0870 calls was much lower. Of tel therefore reduced the average discounts for 0870 calls to 2.4% in recognition. These new discounts were applied from 1 September 2000. However, in the absence, at the time, of data relating to the recently introduced 0844 and 0871 number ranges Of tel directed that these should remain at 11.75% until such time as it directed otherwise.
- A4.14 On 25 March 2003 Of tel made a determination of discounts for 0844 and 0871 which set rates by the type of service being accessed rather than by

number range. Discounts for 0844/0871 internet services were set at 17.8% whilst those for other services were set at 0.1% and 0% for non-discounted services.

- A4.15 These average discounts remained in force until 1 April 2004 the date set by Ofcom's final decision published on 28 August 2004 in relation to the "Dispute between BT and various Providers about NTS Discounts" referred by BT in April 2004. This can be found on Ofcom's website at:

[http://www.ofcom.org.uk/bulletins/comp\\_bull\\_index/comp\\_bull\\_ccases/closed\\_all/cw\\_766/final\\_dec/?a=87101](http://www.ofcom.org.uk/bulletins/comp_bull_index/comp_bull_ccases/closed_all/cw_766/final_dec/?a=87101)

This document set BT's NTS discounts from 1 April to 30 June 2004 at:

NTS call type	Average Discount Factor (%)
Local rate (0845) calls	14.7%
National rate (0870) calls	2.8%
Premium rate services	0.1%
0844/71 internet services	6.4%
0844/71 other services	0.0%

and from 1 July 2004 at:

NTS call type	Average Discount Factor (%)
Local rate (0845) calls	16.3%
National rate (0870) calls	4.7%
Premium rate services	0.1%
0844/71 internet services	0.9 %
0844/71 other services	0.0%

## NTS conveyance

- A4.16 When Oftel established the NTS regime and formula in 1996, BT was unable to identify how much of its network was being used in originating calls to TCPs' networks or for transit calls from other OCPs for termination on TCPs' networks. As a proxy BT and Oftel agreed that all charges for conveyance of all NTS calls should be set at BT's single tandem conveyance charge, the lowest charge that could apply. This meant that a small TCP with only one point of connection ("POC") was charged the same per minute conveyance charge, by BT, as larger TCPs who interconnected at virtually every BT tandem switch.

- A4.17 The problems with this simple assumption were that:

- BT was arguably not recovering its real costs of originating and transiting NTS calls to the majority of TCPs' networks; and
- small TCPs had no incentive to invest in efficient interconnection arrangements with BT:

- A4.19 In 1998 BT attempted to de-average the single tandem origination charge using a methodology, which relied on samples of calls to a small number of TCP networks. This proposal was rejected by the NTS industry and the

resultant dispute led to Oftel making the “*Direction concerning BT’s NTS Conveyance*” in November 1999:

<http://www.ofcom.org.uk/static/archive/oftel/publications/1999/consumer/nts1199.htm>

- A4.20 This direction introduced a methodology known as the Network Charge Differential (“NCD”) by which BT’s origination and transit charges were calculated as a function of the number of points of connection (“POCs”) each TCP had. The more POCs the lower the charges until, with 69 POCs, the minimum, single tandem, charge was achieved. The NCD methodology was intended as a temporary expedient until BT was able to introduce an automated billing system for NTS calls which recorded the actual routing of TCPs’ calls on a call-by-call basis. This new system was called Inter-Network Call Accounting (“INCA”) using the Calling Line Identity (“CLI”) and has become known as INCA/CLI.
- A4.21 In the event BT’s initial attempt to introduce INCA/CLI late in 2000 was rejected by most TCPs for a number of reasons, and the NCD methodology remains in use for the majority of NTS calls although some TCPs are using the INCA/CLI system.
- A4.22 In July 2004, however, Ofcom published a further statement and draft direction entitled “*INCA/CLI for NTS Interconnection charging*”:
- [http://www.ofcom.org.uk/consultations/past/inca\\_cli\\_nts/?a=87101](http://www.ofcom.org.uk/consultations/past/inca_cli_nts/?a=87101)
- A4.23 This draft direction proposed that BT should complete the necessary work to overcome the shortcomings of INCA/CLI with a view to the NCD methodology being withdrawn by the end of 2005. At the time of writing, Ofcom is still in the process of preparing a final direction on this issue.

### **Retail pricing and numbering arrangements for NTS calls**

- A4.25 As previously stated, from October 1997 BT assumed control, from Oftel, of setting its own NTS charges. However, when BT proposed changes to any element of NTS charging a dispute almost inevitably arose, especially where the change led to terminating payments being reduced. In any one year several adjustments could be made to the level of BT’s regulated NTS retention or transit charges. This created uncertainty for TCPs and their service provider customers in the revenues they could expect to receive, undermining the business cases created to justify future investments in networks and services.
- A4.26 As a consequence of these concerns Oftel set up the NTS Focus Group (“NTS FG”) as a forum to discuss issues between BT and the NTS community. One of the objectives of this group was to look at how stability could be restored to NTS revenues. It became clear that, with NTS retail prices inextricably linked to BT’s local and national geographic call prices (which were and still are subject to the Retail Charge Control), NTS (particularly 0845) terminating payments would continue to steadily decline. This was a particular problem for ISPs who, at that time, were wholly dependent on the revenue share from 0845 terminating payments to sustain their services.

- A4.27 Following a lengthy period of discussion at the NTS FG followed by a formal consultation, Oftel published the 1999 NTS Statement.
- A4.28 This statement introduced new NTS number ranges in 0844 and 0871, priced at up to 5p per minute and 10p per minute respectively. TCPs could select the retail price they wanted for calls to their services and these would not be subject to any retail price controls although retail discounts could still be applied to the new 0844 and 0871 number ranges by BT. Because of the potential for consumer confusion if TCPs were able to, subsequently, change their chosen retail prices, Oftel stated that in order to change the retail price TCPs would have to migrate their service to a new number range in 0844 or 0871. These new arrangements have become known as “new NTS”.
- A4.29 A further refinement was made to the “new NTS” arrangements in May 2002 when, following a dispute between BT and Cable and Wireless, Oftel issued a direction which enabled TCPs to exclude their 0844 and 0871 services from BT’s retail discounts by migrating to new, non-discounted, numbers in 0844 and 0871.
- A4.30 Despite the availability of “new NTS”, take up of 0844 and 0871 numbers has been slow. TCPs and service providers have been reluctant to migrate services from 0845 and 0870 numbers because of the perceived costs and the perceived likelihood of losing customers.

### **Ofcom’s 2004 Statement on calls to 0845 and 0870 numbers**

- A4.32 In April 2003 BT announced its intention to reduce its retail prices for evening local and weekend national geographic calls. This had the effect of knock-on reductions in the payments to TCPs for terminating 0845 and 0870 calls, where those calls either originated on or transited the BT network. Concerns expressed by TCPs about this situation led Oftel to carry out a Competition Act investigation into these changes. In addition, in September 2003 Oftel consulted on a number of policy options for the future retail pricing arrangements for 0845 and 0870 calls including breaking the link for BT customers between NTS and geographic call prices. Ofcom continued this work when it replaced Oftel and set out its conclusion in a document entitled “*A statement and further consultation on 0845/0870 retail pricing*” published on 29 April 2004 which is available at Ofcom’s website at:

<http://www.ofcom.org.uk/consultations/past/0845/?a=87101>

- A4.33 Ofcom decided that the link for BT customers between geographic and 0845/0870 call prices should not be broken but that the use of 0844 and 0871 numbers should be made easier by allowing TCPs using 0844 and 0871 numbers to change retail prices and discount arrangements without having to migrate services to new number ranges. Furthermore Ofcom undertook to work with the industry to produce guidance on how NTS call prices should be advertised in order to limit, as far as possible, consumer price confusion.
- A4.34 Ofcom acknowledges that several of the rejected options in Oftel’s September 2003 consultation document (namely Options 2a and 2b in that document) are similar to Option 2 as set out in this document. Ofcom is proposing Option 2 in the current consultation despite having previously

decided not to take similar options forward because Ofcom now has additional information about the technical feasibility of this option (e.g. the conclusions of Ofcom's external technical consultants) and also because Ofcom has now had the opportunity to carry out a more thorough analysis of a wider range of alternatives.

- A4.35 In May 2004 BT increased its termination charges for calls to its own NTS services from other OCPs. This move combined with BT's June 2003 retail price reductions for local and national geographic calls and the prospect of further changes to NTS discounts with Ofcom's August 2004 discounts decision (see paragraph A4.15 above) have added to the pressures felt by service providers, particularly those using 0845 numbers. All three are contributory factors that have led to Ofcom carrying out this re-examination of the NTS framework.

### **The NTS retail uplift**

- A4.36 The final key area where both Oftel and Ofcom have had significant involvement in NTS policy is with BT's NTS Retail Uplift charge. When Oftel established the NTS regime in 1996 it recognised that BT's cost oriented retention should include not only the network costs for originating calls but also an allowance for relevant retail costs. These included, for example, the costs of billing retail customers for NTS calls and the consequential bad debt liability.
- A4.37 The initial method used by Oftel to set the retail uplift was to use data from BT's audited Financial Statements to calculate the percentage of network costs represented by BT's retail costs allocated to NTS and PRS calls. This percentage (initially 38%) was then added to the total network costs incurred in routing calls to each TCP. The percentage uplift was recalculated each year with the publication of BT's accounts until BT assumed responsibility for setting its own charges under NCC. BT, however, did not review the retail uplift after October 1997 because the change to NCC brought with it the move from Fully Allocated Costs ("FAC") to Long Run Incremental Costs ("LRIC") based cost accounting. This, in turn meant that BT could no longer use data from its financial statements to perform the retail uplift calculation without a step change to the charge. This was not considered at the time to be appropriate since it was felt that a change in accounting methodology should not necessarily mean that charges should change dramatically.
- A4.38 BT therefore continued to rely on the pre-NCC retail uplift methodology to calculate the charge. TCPs had long considered that the retail uplift charge, calculated in this way, was too high whilst BT considered it was actually under-stating its real retail costs. Oftel, therefore, agreed to review the methodology and to seek to establish a more accurate means of calculating the charge.
- A4.39 In the event Oftel was unable to complete this review until March 2002. Oftel set separate retail uplift charges for Freephone and all other NTS/PRS calls and applied these retrospectively from April 2000. Subsequent directions by Oftel set the charge from April 1999 and from April 2001 and April 2002. However, NTS CPs questioned Oftel's new methodology and disagreed with the revised charges, believing they continued to include costs not correctly attributable to NTS calls.



- A4.40 In November 2003 Oftel published its market review of fixed narrowband wholesale call origination as part of the process to introduce the new EU regulatory framework which came into force in July 2003. This established the BT NTS Call Origination Condition but did not set the NTS retail uplift charge. This was in order to allow Oftel, and now Ofcom, time to undertake a further review of BT's costs underpinning the charge, in response to NTS CPs continued concerns. The review also concluded that a charge control was appropriate for setting the retail uplift charge in future years.
- A4.41 On 8 July 2004 Ofcom published its draft conclusions from this review in the consultation document entitled "*Number Translation Services Retail Uplift charge control and Premium Rate Services bad debt surcharge*":  
[http://www.ofcom.org.uk/consultations/current/nts\\_retail\\_uplift/](http://www.ofcom.org.uk/consultations/current/nts_retail_uplift/)
- A4.42 At the time of writing, Ofcom is still in the process of consulting on this issue.

## Annex 5

# The NTS market

A5.1 The purpose of this Annex is to provide information on the volume and breakdown of NTS calls, CP shares and the pricing of the associated retail and wholesale services. Most of the information has been derived from returns provided by OCPs and TCPs in response to a formal Ofcom information request. The primary focus is on NTS calls made from fixed lines, although some data are also provided on calls made from mobile phones.

### Retail services

A5.2 Ofcom estimates that UK consumers spent £1.25 billion on NTS retail calls from fixed lines in 2003. This represents 19% of all retail call revenues made from fixed lines. An additional £202m was paid to TCPs by NTS SPs for the provision of freephone NTS calls, providing an estimate of the total size of the market (excluding revenues earned by mobile CPs for the origination of NTS calls) of £1.46 billion. (see [http://www.ofcom.org.uk/research/industry\\_market\\_research/m\\_i\\_index/cm/?a=87101](http://www.ofcom.org.uk/research/industry_market_research/m_i_index/cm/?a=87101) for statistics relating to all UK calls markets in aggregate).

A5.3 Ofcom estimates that a total of 57,466 million call minutes to NTS numbers were originated from fixed lines in 2003. This represents 17% of all retail call volumes from fixed lines. Additionally, Ofcom estimates that a further 2,700 million call minutes to NTS numbers were made by mobile subscribers in 2003. This represents 6% of all call minutes made by mobile subscribers.

A5.4 The breakdown of revenues and minutes for calls from fixed lines is shown in Figure 13 and Figure 14 below. Figure 14 shows that, between 2002 and 2003, there was a modest decline in the total volume of NTS calls, with a modest increase in the volume of calls to 0870 and 0871 numbers, and a large increase in the volume of calls to 09 numbers. The data in both these tables relates to March-April, i.e. 2003 data relates to the 12 months to end April 2004. Where individual companies supplied data for calendar years, this was adjusted by Ofcom based on the prevailing rate of change between years.

**Figure 13: Breakdown of retail NTS call revenues from fixed lines, 2003**

(£m)	2003
Freephone (0800, 0808)	202
Special Services basic rate (0844, 0845)	633
Special services higher rate (0870, 0871)	216
Premium Rate (09)	404
<b>Total</b>	<b>1,455</b>

**Figure 14: Breakdown of NTS call volumes from fixed lines, 2002 and 2003**

(million minutes)	2002	2003	% change
Freephone (0800, 0808)	17,339	14,504	-16%
Special services basic rate (0844, 0845)	39,040	37,927	-3%
Special services higher rate (0870, 0871)	3,923	4,265	9%
Premium Rate (09)	587	770	31%
<b>Total</b>	<b>60,890</b>	<b>57,466</b>	<b>-6%</b>

A5.5 The following points should be noted about the revenues shown in Figure 14:

- the revenues shown for freephone services are the gross revenues received by TCPs from the NTS SPs. Some of these revenues will have been passed on to the OCPs that originated the calls; and
- the revenues shown for the other number ranges are the gross revenues received by the OCPs from consumers who have made calls to NTS numbers. Some of these revenues will have been passed on to the TCPs, which terminated the calls. In some cases, a share of the revenues will also have been passed on by the TCPs to the NTS SPs receiving the NTS calls. This NTS SP revenue share is likely to be large in the case of higher priced premium rate calls, but smaller amounts may also be payable on calls to 087 and 084 numbers, depending on the volume of calls generated to a particular number and the contractual agreement between the NTS SP and the TCP.

A5.6 The various NTS number ranges support a very wide variety of services, such as:

- pay-as-you-go internet access;
- voice telephony services e.g. those provided by two stage indirect access service providers and international calling services;
- government and other public sector services e.g. enquiry lines for the Department for Work and Pensions, the Inland Revenue and the DVLA;
- chat lines;
- sexual entertainment services ("SES");
- voting services e.g. for TV programmes such as *Big Brother*;
- information services e.g. rail timetables, crossword solutions ;
- other commercial private sector services, including:
  - marketing and sales enquiries;
  - transaction services e.g. telephone banking;
  - post-sales services such as fault reporting and post-sales enquiries; and
- non-commercial private sector services such as charity lines and helplines.

A5.7 Ofcom does not have any reliable quantitative data on the pattern of usage by different service types, but Ofcom believes that the general picture is as follows:

- Freephone numbers (0800 and 0808) are principally used to access private sector voice services such as sales lines and helplines; and telephony services provided by two stage indirect access service providers;
- 0844 and 0845 numbers are used extensively to access PAYG internet services (predominantly using 0845 numbers), and also support a wide range of other services, including pre- and post-sales enquiry lines, public sector services, transaction services and information services;
- 0870 and 0871 numbers are principally used to provide access to pre- and post-sales enquiry lines, some public sector services and services such as the international telephony services provided by resellers. Recent evidence also indicates that they are now being used to support some SES services; and
- premium rate (09) numbers are used mainly to access SES services, chatlines, voting services and some post-sales services such as technical support. 09 call volumes have been growing rapidly - as outlined in Figure 14 these grew by 31% between 2002 and 2003. The recent growth in call volumes has been driven principally by the increasing popularity of TV programmes in which viewers are invited to express a preference by calling a premium rate number.

## Wholesale services

- A5.8 The following wholesale services are associated with the provision of NTS retail calls:
- NTS call origination;
  - NTS call termination; and
  - NTS call transit.
- A5.9 All NTS calls require origination and termination. If the caller is connected to the same network as the organisation using the NTS number then only a single CP is involved, otherwise the call is originated by one CP (the originating CP or OCP) and terminated by a different CP (the terminating CP or TCP). If the OCP's and TCP's networks are not directly interconnected, the call must pass through a third network, known as a transit service. Ofcom estimates that a high proportion of calls that do not originate or terminate on BT's network use BT for transit since Ofcom is only aware of [X] CPs other than BT that interconnect with other non-BT CPs for NTS traffic.
- A5.10 For each number range Ofcom has also sought to estimate how NTS call revenues are split between the different wholesale services. The results are shown in Figure 15.

**Figure 15: Division of NTS call revenues by wholesale service, 2003/04**

(£m)	Freephone (0800, 0808)	Special Services basic rate (0844, 0845)	Special Services higher rate (0870, 0871)	Premium Rate (09)	Total
Call origination	n/a	119	70	100	289
Call termination	n/a	282	226	336	844
Call transit	<i>Insufficient information to give reliable figures</i>				
Total wholesale	202	401	296	436	1335

A5.11 In Figure 15 the call origination and call termination revenues quoted are for calls that are terminated on a different network from where they originate. Note that in comparing Figure 13 and Figure 15 that:

- unlike Figure 13, Figure 15 includes revenues pertaining to mobile originated traffic; and
- some calls originate and terminate on the same network; in such cases it was not possible to calculate distinct origination and termination revenues.

### **BT's share of NTS call termination**

A5.12 The information in Figure 16 relates to BT's share of the market for NTS call termination, i.e. the service provided to OCPs by TCPs when OCPs hand NTS traffic over to them.

A5.13 Figure 16 show that BT provides approximately [%] of NTS call termination services reflecting the considerable success of TCPs other than BT in penetrating the NTS call termination market as it expanded following the introduction of the NTS regime in 1996. BT has [%] share of NTS call termination.

A5.14 It is important to note that the call volume shares are based on all originating minutes, whereas the revenue shares are only based on calls which pass across more than one network.

**Figure 16: BT's share of wholesale NTS call termination, 2002/03 and 2003/04**

	2002 %	2003 %
Share of wholesale NTS call termination call minutes	[%]	[%]
Share of wholesale NTS call termination revenues	[%]	[%]

### **Retail pricing and price trends**

A5.15 The way in which retail prices for NTS calls are set varies by both number range and network operator.

- A5.16 For freephone calls, the amount paid by the recipient of the call (the NTS SP) to the terminating network operator can be thought of as the retail price. As NTS call termination services provided to NTS SPs by TCPs are not currently subject to ex ante regulation, these charges are determined through commercial negotiation between the parties concerned. The current convention is that all the fixed CPs do not charge callers for freephone calls. However, some mobile CPs do levy charges to their customer for calls to freephone numbers.
- A5.17 For 0845 and 0870 calls, the retail prices before discounts for calls made by BT customers to these numbers are presently linked to BT's standard pre-discount rates for local and national calls to geographic numbers. This linkage is set out in the Plan (and explained further at Annex 9). These arrangements mean that price movements for 0845 and 0870 calls made by BT customers have mirrored the movements in the standard price for geographic calls made by BT customers.
- A5.18 Retail prices for 0845 and 0870 calls made from networks other than BT's are set at the discretion of the OCP originating the call.
- A5.19 For 0844, 0871 and 09 calls made from BT's network, the retail price is set by the TCP. More precisely, the process involved is as follows:
- the TCP decides that it needs to be able to offer its service providers a particular price point for calls to their services from BT customers;
  - the TCP applies to Ofcom for a block of numbers at the required price point and is allocated an appropriate block of numbers by Ofcom; and
  - the TCP then assigns numbers from the block to its NTS SPs wishing to provide services using those numbers.
- A5.20 The range from which price points can be selected varies by type of number range: for 0844 calls, the retail price point for BT customers must not exceed 5p per minute or per call; for 0871 calls, the retail price for BT customers must not exceed 10p per minute or per call; and for 09 calls, the retail price for BT customers does not currently exceed £1.50 per minute although Ofcom is aware of Industry discussions about the availability of price points in excess of £1.50 per minute.
- A5.21 For 0844, 0871 and 09 calls made from networks other than BT's, retail prices are once again determined by the CP originating the call.
- A5.22 Figure 17 shows the weighted average retail charges for NTS calls for all of the CPs (including BT) that provided information in response to Ofcom's formal information request.

**Figure 17: Average retail charges per minute for NTS calls from fixed networks, 2002/03 and 2003/04**

(Pence per minute)	2002/03	2003/04
Freephone: 0800 & 0808	0.0	0.0
Special services basic rate (0844 & 0845)	1.9	1.7
Special services higher rate (0870 & 0871)	5.5	5.1
Premium Rate (09)	64.1	52.5
Total	2.2	2.2

A5.23 Figure 17 shows that average retail prices have remained at a broadly constant level over the last two years. The one exception is premium rate, where the average charge decreased by more than 10ppm between 2002/03 and 2003/04. This is likely to reflect an increased usage of premium rate numbers to offer less expensive services.

A5.24 It is also possible to look in more detail at trends over time in BT's retail charges for 0845 and 0870 calls. Figure 18 and Figure 19 show the trend in the 'deemed retail price' of 0845 and 0870 calls. The 'deemed retail price' is call price that BT uses when calculating termination payments for NTS calls that are either originated by BT or which are transited by BT. The 'deemed retail price' is BT's standard retail call prices less a discount percentage that takes into account the discounts that BT applies to these call types with various discount packages such as BT Together. Thus the deemed retail price is the effective retail price that BT charges for NTS Calls on average.

**Figure 18: BT's retail charges per minute for 0845 calls, by time of day, 1998-2004<sup>24</sup>**

Year (April 1)*	Daytime (ppm)	Evening (ppm)	Weekend (ppm)
1995	3.44	1.54	1.30
1996	3.44	1.54	1.30
1997	3.11	1.30	0.79
1998	2.98	1.12	0.75
1999	2.97	1.11	0.75
2000	2.97	1.11	0.75
2001	2.86	1.07	0.72
2002	2.86	1.07	0.72
2003	2.86	1.07	0.72
2004	2.87	0.73	0.73

\* Prices shown for 2004 are correct as at September 2004.

<sup>24</sup> Prices quoted are 'deemed retail prices' for long duration calls

**Figure 19: BT's retail charges per minute for 0870 calls, by time of day, 1998-2004<sup>25</sup>**

Year (April 1)*	Daytime (ppm)	Evening (ppm)	Weekend (ppm)
1995	7.80	4.59	2.66
1996	7.03	3.68	2.66
1997	6.23	3.65	2.59
1998	6.06	3.17	2.28
1999	6.03	3.16	2.27
2000	6.03	3.16	1.54
2001	6.67	3.49	1.70
2002	6.67	3.49	1.70
2003	6.67	3.49	1.70
2004	6.65	3.48	1.27

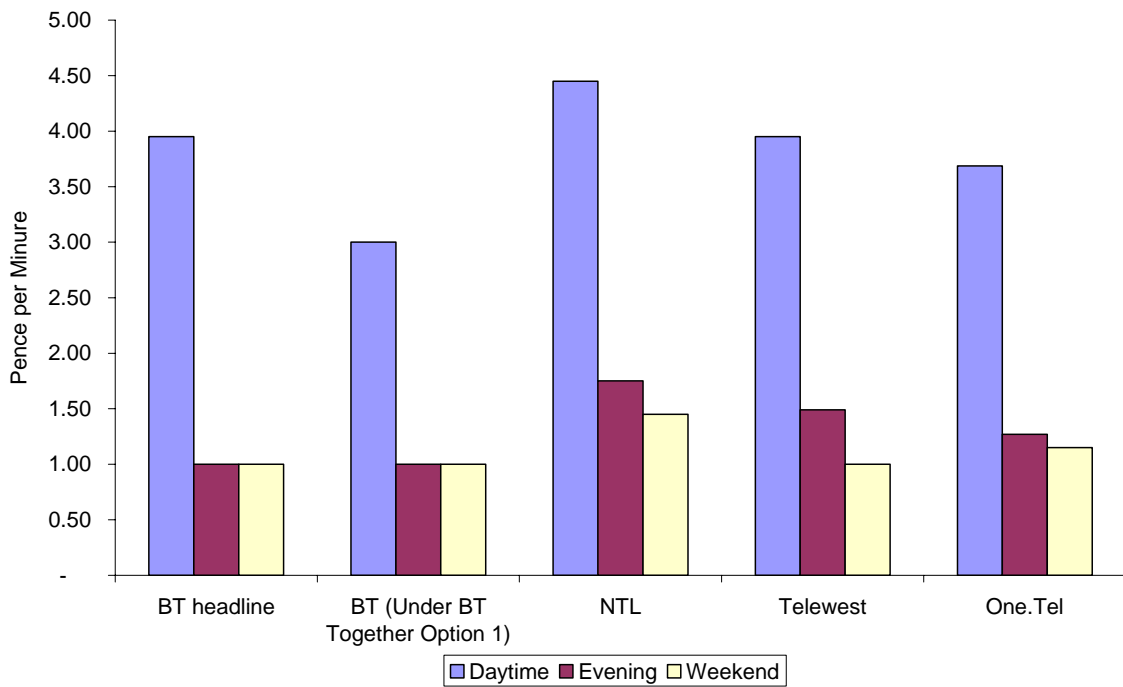
\* Prices shown for 2004 are correct as at September 2004.

- A5.25 The figures show that BT's retail prices for 0845 and 0870 calls have been quite steady in nominal terms over much of the period, but have been subject to occasional downward adjustment (although there was a rise in 2001 for 0870 calls). These reductions have been a cause for concern for TCPs other than BT, as they have led to corresponding reductions in the revenues they have received for terminating the calls to these numbers that are either originated by BT or that are originated by other CPs and routed to the TCP via BT transit.
- A5.26 The prices charged by operators other than BT for 0845 and 0870 calls have been subject to significant variation, and in some cases have been well above those set by BT. This is illustrated in Figure 20 and Figure 21 below.
- A5.27 These two figures compare the retail prices (including VAT) as of September 2004 charged for NTS calls by BT and three of its biggest retail competitors for 0845 and 0870 calls. This data shows that BT's discounted call prices are somewhat cheaper than those of its competitors. Ofcom has not provided data on the prices charged for calls made from mobile networks since these can vary significantly between various retail packages (and additionally, calls to 0845 and 0870 numbers are typically included as part of the bundled call minutes offered by the mobile companies). However, it is certainly the case that headline mobile NTS call prices are significantly above their fixed network equivalents. Prices of calls to both 0845 and 0870 numbers can typically be in the region of 25ppm or more during the daytime, and 5ppm or more at off-peak times.

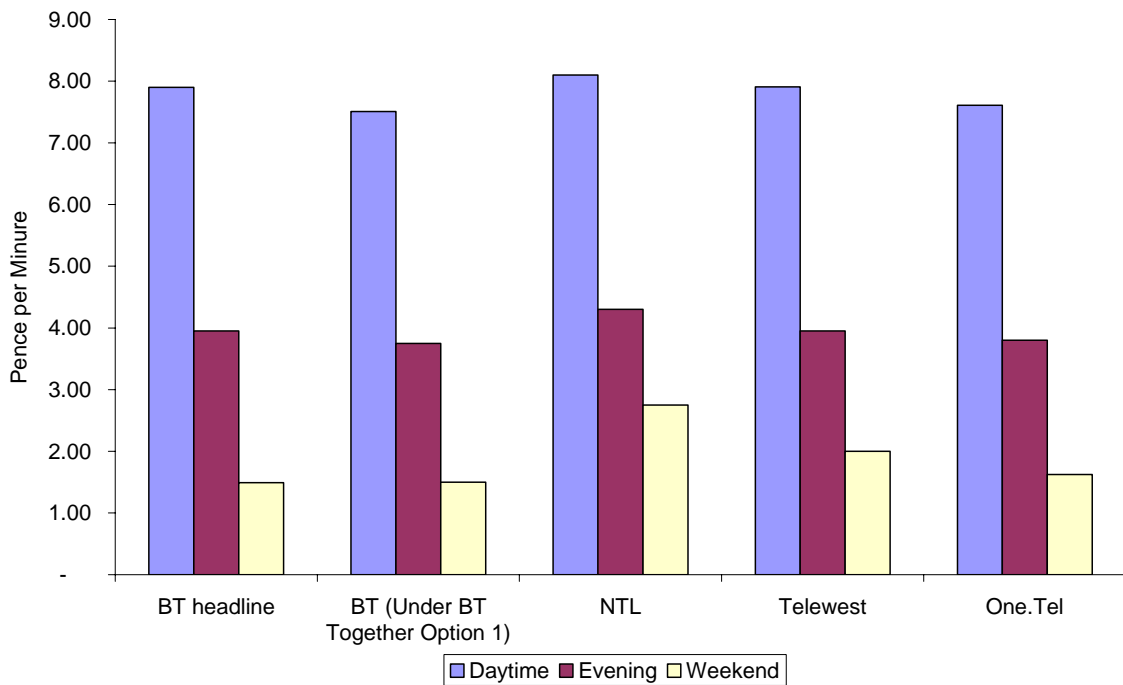
<sup>25</sup> Prices quoted are 'deemed retail prices'.



**Figure 20: Prices for 0845 calls by CP and time of day (including VAT)**



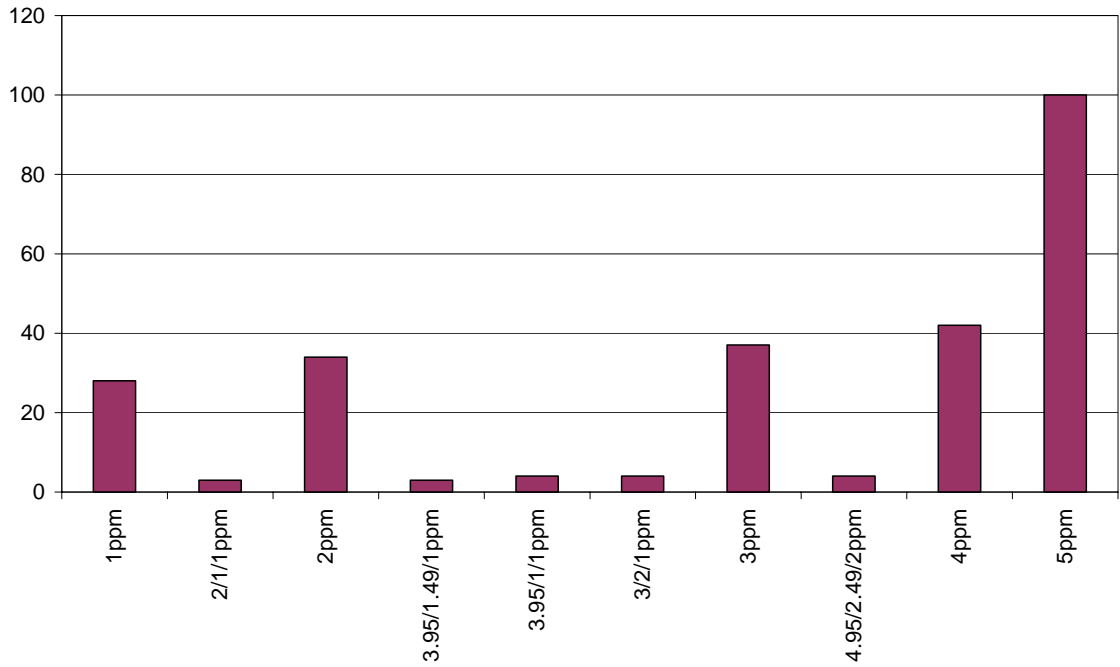
**Figure 21: Prices for 0870 calls by CP and time of day (including VAT)**



A5.28 Figure 22 and Figure 23 provide information (correct as of September 2004, sourced from the National Numbering Scheme) on the distribution of 0844 and 0871 number blocks by tariff (for calls originating on BT's network).

They show that, for both call types, there has been a distinct tendency for prices to be set towards the upper limit of the relevant price range.

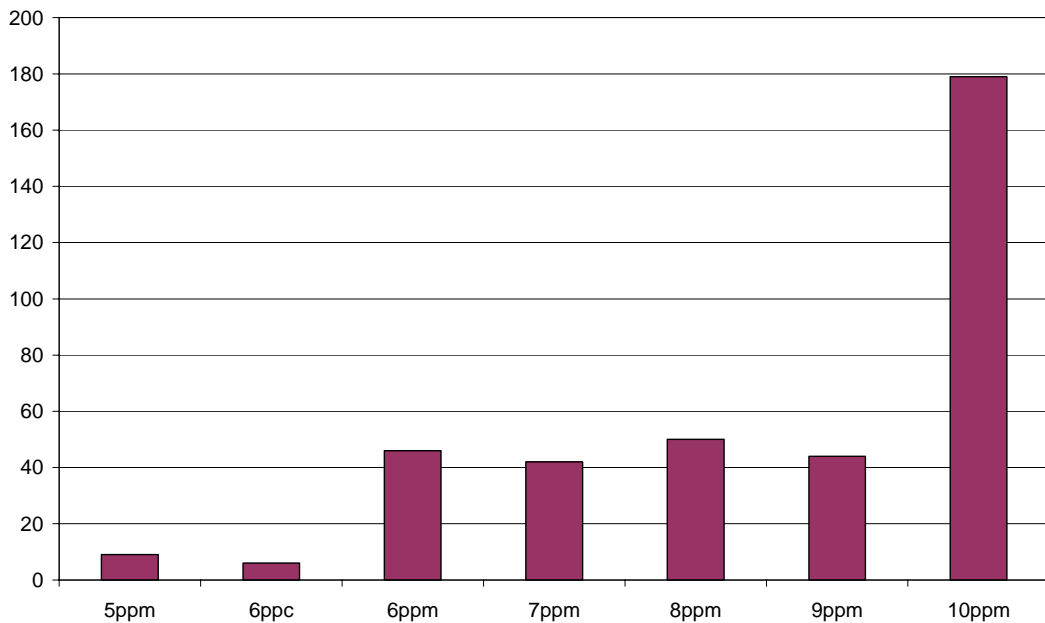
**Figure 22: Distribution of tariffs in 0844 non-Internet 10k block allocations**



PPM = Pence per minute

Where three prices are shown, these relate to daytime, evening and weekend rates

**Figure 23: Distribution of tariffs in 0871 non-Internet 10k block allocations**



PPC = Pence per call

PPM = Pence per minute

## Wholesale pricing and price trends

A5.29 The process for pricing wholesale inputs is similarly complex.

### Call Origination

A5.30 BT is subject to the BT NTS Call Origination Condition which requires it to provide NTS call origination on regulated terms, having been found to have SMP in the wholesale call origination market. Under that condition, BT is required to originate and retail NTS calls on behalf of other parties, and to pass on the revenues to the TCP, less a cost-based retention to cover its (BT's) call origination and retailing costs.

A5.31 This principle, that BT's retention for originating NTS calls should be cost-based is a key feature of the current NTS regulatory regime, and applies to all categories of NTS traffic. The amount retained by BT to cover its retail costs - the retail uplift - varies by call type, being higher for 084/087/09 calls than for freephone calls to reflect the differing costs of retailing each call type. For 09 calls there is an additional bad debt surcharge to reflect the greater cost to BT of bad debt for 09 calls as a result of the higher retail prices for these calls. But the basic approach in each case is the same.

**Figure 24: BT's call origination retention, 1995 to 2004 (includes both network and retailing costs)**

Year	Daytime (ppm)	Evening (ppm)	Weekend (ppm)
1995/96	1.42	0.84	0.65
1996/97	1.29	0.71	0.57
1997/98	1.22 <sup>26</sup>	0.66	0.52
1998/99	1.04 <sup>27</sup>	0.58	0.48
1999/00	0.91	0.50	0.42
2000/01	0.86	0.48	0.40
2001/02	0.93 <sup>28</sup>	0.42	0.33
2002/03	0.89	0.41	0.32
2003/04	0.85	0.39	0.31
2004/05	0.79	0.36	0.29

A5.32 For non-SMP OCPs, the amount they charge for originating NTS calls is in principle a matter for them to decide on a commercial basis, and is the difference between the retail price they choose to charge for each type of NTS call and the terminating payment they are able to negotiate with the TCP. Such OCPs are not constrained in any direct sense by the regulatory regime. In practice, however, the division of revenues between these non-SMP OCPs and TCPs is strongly influenced by the regulatory provisions that apply to BT. We return to this point in paragraph A5.36 below.

<sup>26</sup> Pre NCC charge using FAC costs

<sup>27</sup> Introduction of NCC and use of LRIC based charges

<sup>28</sup> Change of tariff gradient calculation by BT

## Call Termination

A5.33 As noted above, the market for NTS call termination services is not currently subject to ex ante regulation, so that all TCPs are in theory free to set termination prices on a commercial basis. But here again, the reality is more complicated.

### *Freephone, 0844, 0871 and 09 calls*

- A5.34 For freephone, 0844, 0871 and 09 calls which originate on the BT network, the TCP is involved in setting the retail price for the call, and consequently has control over the amount it receives for call termination, once BT has retained (i.e. has effectively been paid) a cost-oriented amount for call origination.
- A5.35 For freephone, 0844, 0871 and 09 calls which originate on other non-SMP networks, the amount paid by the OCP to the TCP is a matter for commercial negotiation, provided the OCP's and TCP's networks are directly interconnected, and the traffic is not transited through a third party network.
- A5.36 However, where a transit operator is involved, it is normally BT. In these cases the TCP currently receives BT's standard termination charge for a BT-originated call, even when the call has actually come from a different OCP and is only in transit across the BT network.
- A5.37 This arrangement reflects the fact that, when determining how much BT should pay to the TCP for call termination (which in turn is the amount BT will charge to the call originator) BT's billing systems do not currently have the ability to differentiate according to where the call originated (i.e. whether the call originated on the BT network or on another OCP's network). So, when BT receives, for example, an 0871 call from another OCP for which the retail price from the BT network is Xp per minute, it will bill the OCP (and pay the TCP) BT's standard termination charge for that type of call, regardless of (i) the fact that the calling party is likely to have paid a retail charge to the OCP which differs from Xp per minute and (ii) whether the call will be terminated on BT's network, or transited through to a different TCP.
- A5.38 The effect of this arrangement is that, if a call is transited through BT's network, the OCP has no discretion over the amount it has to pay for call termination. This applies unless the OCP were able to negotiate other payment arrangements directly with the TCP in addition to or separate from the cascade billing arrangements operated by BT when BT acts as a transit network. To date this has not occurred in practice in respect of NTS calls, possibly due to the number of different OCP and TCP combinations that would have to be considered, and the lack of incentives on TCPs to conclude such separate arrangements. The TCP, on the other hand, is able to influence the amount it receives for call termination for 0844/0871/09 calls, in the same way as it does for these call types when originated on the BT network, namely by choosing 0844/0871/09 number blocks at retail price points on the BT network that correspond to the termination payment required.

*0845 and 0870 Calls*

- A5.39 For 0845 and 0870 calls which originate on the BT network, the retail prices before discounts are linked to BT's standard (i.e. pre-discount) rates for local and national geographic calls, and, as with freephone, 0844, 0871 and 09 calls, BT's charges for call origination are regulated on the basis of cost. As a result, TCPs (other than BT) have no discretion over the amount they receive for call termination for 0845 and 0870 calls. The termination payment is effectively a residual amount, once the BT call origination charges have been deducted from the retail price.
- A5.40 For 0845 and 0870 calls that both originate and terminate on non-BT networks, the termination charge is a matter for commercial negotiation, *provided the OCP and TCP networks are directly interconnected*. The situation is essentially the same as for other types of NTS call.
- A5.41 For 0845 and 0870 calls which originate and terminate on non-BT networks, but which transit via BT, the TCP currently receives BT's standard termination charge for terminating an 0845 or 0870 call, regardless of which network the call originated on. As with other NTS call types, this reflects the current limitations of BT's billing systems. The difference in this case is that neither the OCP nor the TCP has any control over the amount paid for call termination. (Again, this applies unless the OCP and TCP were able to negotiate other payment arrangements directly with each other in addition to or separate from the cascade billing arrangements operated by BT, even though BT were to continue to provide call transit services).

**Figure 25: BT's single tandem call termination charges for 0845 Calls, 1995 to 2004**

Year (April 1) <sup>9</sup>	Daytime (ppm)	Evening (ppm)	Weekend (ppm)
1995	2.02	0.70	0.65
1996	2.16	0.83	0.73
1997	1.88 <sup>29</sup>	0.63	0.26 <sup>30</sup>
1998	1.94	0.54	0.27
1999	2.06	0.61	0.33
2000	2.11	0.63	0.35
2001	1.94	0.65	0.39
2002	1.98	0.67	0.41
2003	2.01	0.68	0.42
2004	1.99 <sup>31</sup>	0.34 <sup>32</sup>	0.42

**Figure 26: BT's single tandem call termination charges for 0870 Calls, 1995 to 2004**

Year (April 1) <sup>33</sup>	Daytime (ppm)	Evening (ppm)	Weekend (ppm)
1995	6.38	3.75	2.01

<sup>29</sup> BT retail price reduction

<sup>30</sup> Introduction of short and long duration calls. Charge shown is for long duration

<sup>31</sup> Using 1/7/2004 discounts from Ofcom's August 2004 Discounts direction

<sup>32</sup> BT 1/6/03 retail price reduction

<sup>33</sup> Note numbers for 2004 are as at August.

1996	5.74	2.97	2.09
1997	5.00 <sup>34</sup>	2.99	2.07
1998	5.02	2.59	1.79
1999	5.12	2.65	1.85
2000	5.18	2.68	1.14
2001	5.75	3.07	1.37
2002	5.79	3.09	1.38
2003	5.82	3.10	1.39
2004	5.72	3.05	0.96 <sup>35</sup>

A5.42 For 0845 and 0870 calls that originate on non-BT networks and terminate on the BT network, higher charges than shown in Figure 25 and Figure 26 have been applied since 1 May 2004 when BT's NCCN 500 price change took effect.

### Transit

A5.43 In practice, BT is by far the largest transit operator for NTS traffic. Its transit charges are regulated by virtue of BT's SMP in the market for call transit services, see Oftel's *Review of the fixed narrowband wholesale exchange line, call origination, conveyance and transit markets, December 2003*. BT's transit charges (also known as its "TWIX" charges) are cost based.

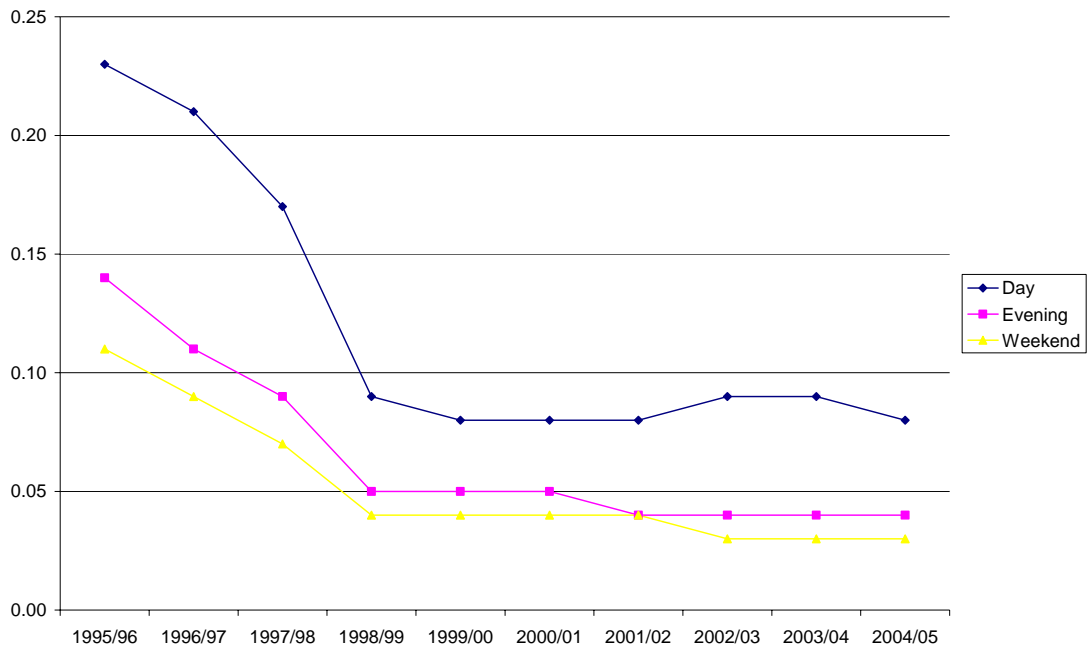
A5.44 The identity of the party that pays transit charges, however, varies according to the type of NTS traffic being carried. For 0845, 0870, 09 and freephone calls, the TCP pays any applicable transit charges. For 0844 and 0871 calls, on the other hand, the OCP pays the transit charge.

A5.45 The four figures below show how BT's transit charges have evolved over the last 10 years. They show a consistent downward trend, particularly in the 1990s, brought about by falling equipment costs and increasing volumes.

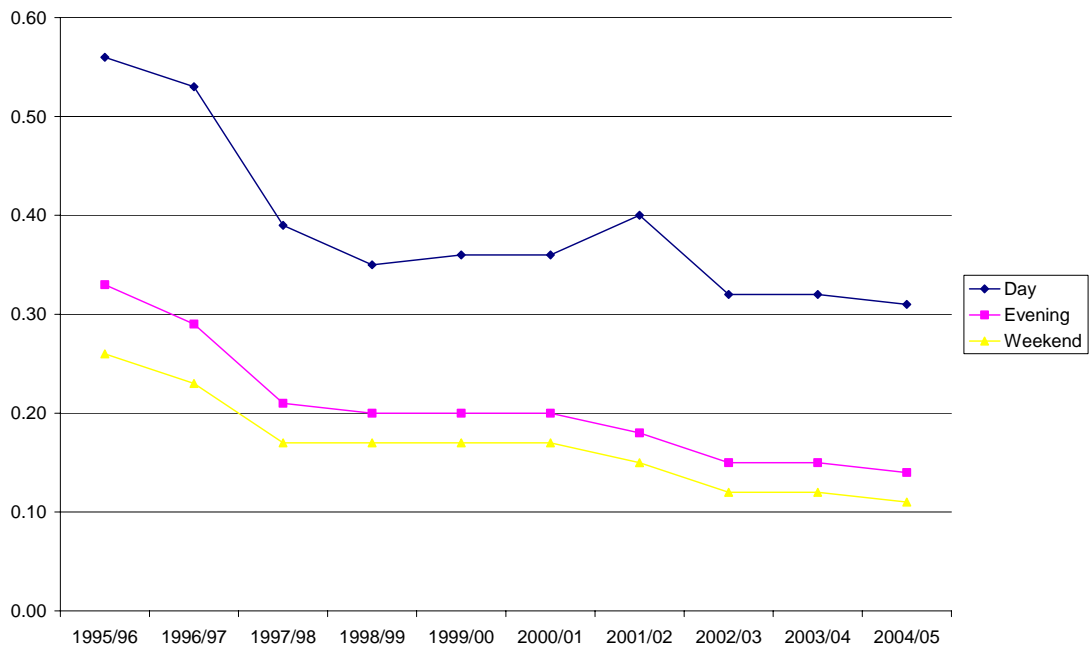
<sup>34</sup> BT retail price reduction

<sup>35</sup> BT 1/6/03 price reduction

**Figure 27: BT's transit charges, 1995 to 2004 – single transit (ppm)**



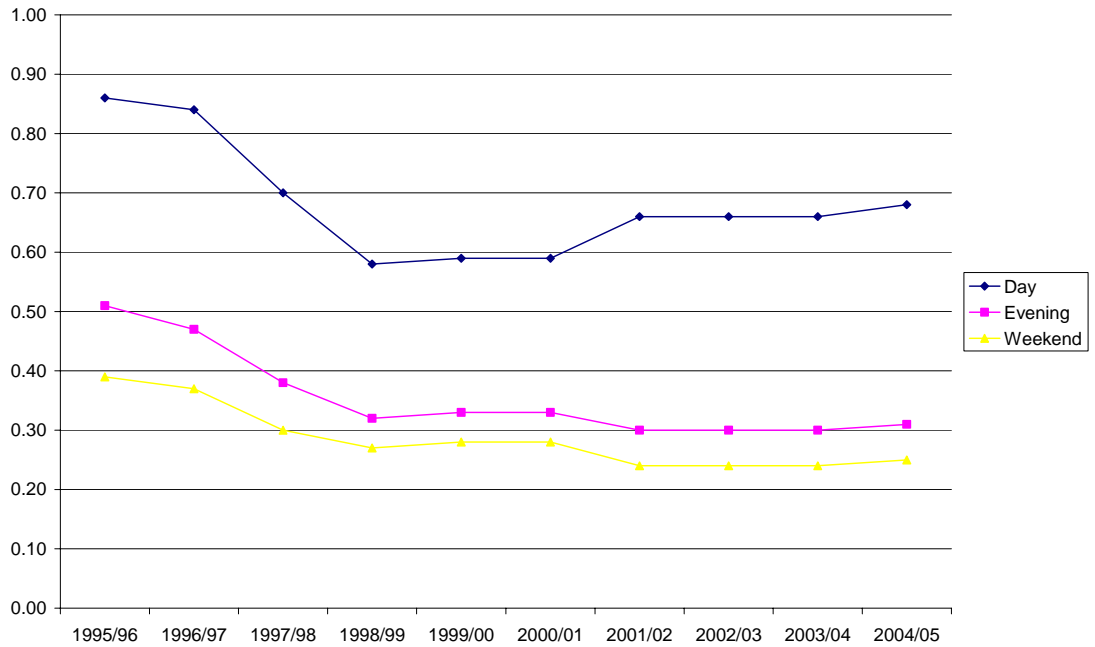
**Figure 28: BT's transit charges, 1995 to 2004 – double transit short (<100km) (ppm)**



**Figure 29: BT's Transit Charges, 1995 to 2004 – double transit medium (100-200km) (ppm)**



**Figure 30: BT's transit charges, 1995 to 2004 – double transit long (>200km) (ppm)**





## Revenue Sharing

A5.46 A key feature of NTS services is that they support the sharing of revenues with the NTS SPs receiving the NTS calls. The extent of any revenue sharing will be influenced by a number of factors, including:

- the retail price of the call e.g. there is no revenue to share on calls to freephone numbers;
- the proportion of retail price which is passed on to the TCP by the OCP, under the interconnect arrangements described above; and
- the relative bargaining power of the TCPs and the NTS SPs e.g. if a number of different TCPs were competing vigorously to win the business of a particular NTS SP (also known as 'hosting' the NTS SP), the latter would be well placed to win a relatively high share of the interconnection payments from the OCP to the TCP.

A5.47 Information on the scale of revenue sharing with the NTS SP on the various NTS number ranges is shown in Figure 31. It should be noted that the average retail price information relates only to calls originated from fixed networks. However, the data on average revenue shares with NTS SPs reflects traffic handed over by TCPs that was originated on both fixed and mobile networks. However, as outlined at the beginning of this annex, only about 5% of all NTS volumes are originated on mobile networks, meaning that the percentage figures in this table remain a reasonable approximation. The information in this table shows a modest increase in the revenue share for all call types in 2003 compared with 2002, and a substantial increase in the revenue share for 0870 calls.

**Figure 31: Revenue sharing on NTS number ranges, 2002 and 2003**

Number range	Average retail price (ppm)		Average revenue share with the NTS service provider (ppm)		Average proportion of retail call revenue shared with NTS SP		Increase in retail call revenue shared with NTS SP 2002 to 2003
	2002	2003	2002	2003	2002	2003	
freephone	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Special services basic rate (0844, 0845)	1.9	1.7	0.5	0.5	27%	28%	0%
Special services higher rate (0870, 0871)	5.5	5.1	1.7	2.7	32%	53%	58%

Premium rate services (09)	64.1	52.5	46.7	38.8	73%	74%	-17%
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A5.48 Figure 31 shows that there has been a substantial increase in the proportion of retail call revenues for Special Services higher rate calls that are ultimately shared by TCPs with NTS SPs. In the last year the revenue share increased by 58% from 32% of the average retail call tariff to 53% of the retail call tariff.

A5.49 Figure 31 shows a significant decrease in the proportion of average retail call tariffs for Premium Rate Services that are ultimately shared by TCPs with NTS SPs. Ofcom believes that this has been caused by the decline in the average price of premium rate calls rather than a decline in proportion of revenue shared with NTS SPs for individual premium rate calls.

## Summary

A5.50 Ofcom's views on the provision of NTS calls are as follows:

- Retail revenues from NTS calls originating on fixed lines in 2003 were £1.46 billion
- NTS retail call volumes and revenues are a significant proportion of all retail fixed line originated call volumes and revenues (17% in both cases);
- Overall, call volumes showed a 6% decline in the last year but call volumes and revenues for the Special Services higher rate range (087) and Premium Rate Services (09) ranges have increased in the last year by 9% and 31% respectively;
- retail prices for 0845 and 0870 services from the BT network have been declining in real terms since the mid 1990s due to the link for BT customers with BT's standard local and national geographic call rates which have also declined over the same period;
- retail prices for 0844 and 0871 calls which are set by TCPs have tended to be set towards the upper limits of the relevant price ranges;
- BT has [x] share of the NTS call termination market with a market share of [x] by volume; and
- during the last year the proportion of retail call charges for the Special Services higher rate ranges (0870 and 0871) that is ultimately shared with NTS SPs has increased significantly and has risen from 32% to 53% of the retail call revenue. Although the increase in the percentage is partly due to a decline in retail prices, in absolute terms the average revenue share has increased by 58%.

## Annex 6

# Research into NTS number usage trends

- A6.1 This section gives a summary of research undertaken by Ofcom into the types of businesses that use NTS numbers and recent trends in usage.
- A6.2 The research is based on Ofcom's analysis of a business database obtained from a commercial supplier. Databases of this type are normally used by businesses for sales and marketing purposes and contain names, addresses and telephone numbers for most UK business sites and also classifies each site by the:
- type of business activity undertaken at the site (classified according to the UK Standard Industrial Classification of Economic Activities (SIC) 1992<sup>36</sup>); and
  - site size measured by the number of employees working at the site.
- A6.3 Ofcom believes that the analysis gives a useful insight into the types of business that use NTS and recent usage trends, however it should be considered indicative rather than definitive for several reasons:
- Business databases of this type are based on information from business directories such as Yellow Pages or Thompson directories, which are primarily a sales channel for the businesses advertising in them. It is possible therefore that the telephone numbers listed will be biased towards those used for sales rather than after-sales functions.
  - There is plenty of anecdotal evidence that businesses are more likely to use freephone (0800, 0500) numbers for sales functions and chargeable NTS numbers (0845, 0870, 0844, 0871 & 09) for post-sales functions and therefore given the possible bias of the database towards numbers used for sales the chargeable NTS numbers may be underrepresented.
  - It is also possible that some types of NTS service provider may be less inclined to advertise some/all their NTS numbers in business directories than the generality of businesses. For example:
    - Ofcom believes that NTS numbers used for two stage indirect access to international calling services are not generally advertised in business directories and may therefore be under represented in this analysis; and
    - ISPs don't generally advertise the NTS numbers that customers use to access their services in business directories, although they may advertise other contact numbers for sales and support etc.

## Usage of NTS Numbers

- A6.4 This section reviews the results of Ofcom' analysis of the current business database.

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<sup>36</sup> A detailed description can be downloaded at the National Statistics website at: [http://www.statistics.gov.uk/methods\\_quality/sic/contents.asp](http://www.statistics.gov.uk/methods_quality/sic/contents.asp)

### Overall Incidence of NTS numbers

A6.5 Figure 32 shows the incidence of NTS numbers by number range in the current database.

**Figure 32: Incidence of NTS numbers in the current database**

Number Range	Special Services Range Designation	Number in 2004 Directory	Proportion of Total
0500 (Freephone)	Freephone	337	2%
0800 (Freephone)	Freephone	6325	30%
0808 (Freephone)	Freephone	353	2%
0844	Special Service basic rate: up to 5 p per minute or per call	3	0%
0845	Special Services basic rate: BT's Standard Local Call Retail Price	5529	26%
0870	Special Services higher rate: BT's Standard National Call Retail Price	8149	39%
0871	Special Services higher rate: up to 10p per minute or per call	208	1%
09	Premium Rate	1	0%
Total		20905	

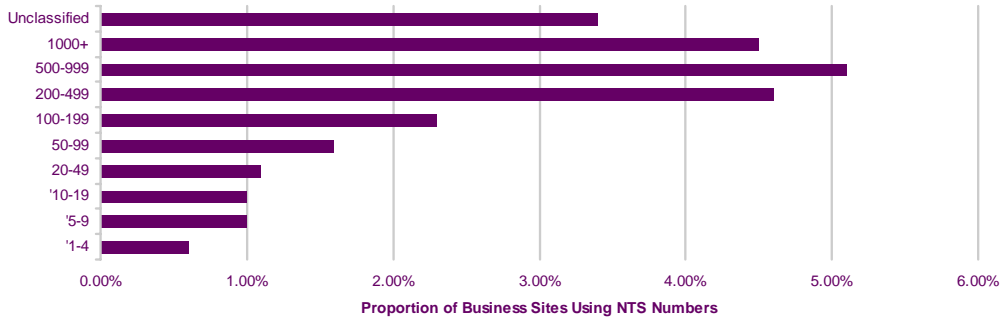
A6.6 In total there are just over 20,000 sites with NTS numbers in the current database equating to 1% of all UK business sites in the current database. This indicates that despite the concerns about replacement of geographic numbers with NTS numbers that the overall incidence is still very low.

A6.7 The most common number range is 0870 at 39% of the total, closely followed by Freephone numbers at 34% and 0845 numbers at 26%. Just 1% are 0871 numbers and tiny proportions are 0844 numbers (just three sites in total) and 09 numbers (only 1 site).

### Usage of NTS numbers by size of site

A6.8 Figure 33 shows the incidence of NTS numbers by site size measured in terms of the number of employees working at the site.

**Figure 33: Use of NTS numbers by site size**



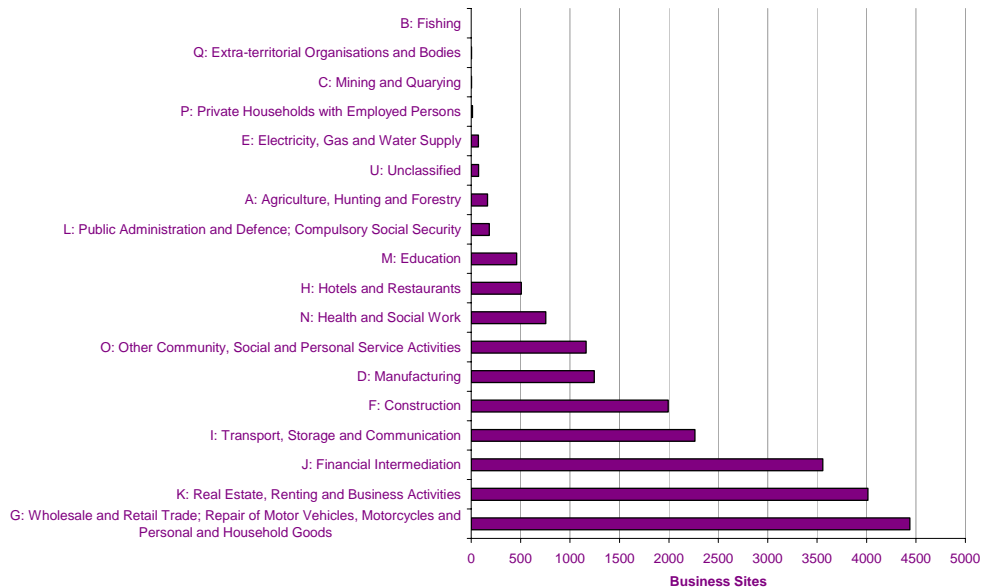
A6.9 The distribution shows that larger sites are much more likely to use NTS numbers than smaller sites. Sites with 500-1000 employees are more than 8 times as likely to use NTS numbers as the smallest sites with 1-4 employees with an overall incidence of 5.1% for 500-999 employee sites compared with 0.6% for 1-4 employee sites.

**Types of business that use NTS numbers**

A6.10 The following figures examine the incidence of NTS number use by the type of business activity undertaken. Sites are classified according to the highest level of SIC code, which is known as Section level. At this level, business activities are grouped into 17 categories.

Figure 34 shows the distribution of NTS numbers by business activity.

**Figure 34: Distribution of NTS numbers by business activity**



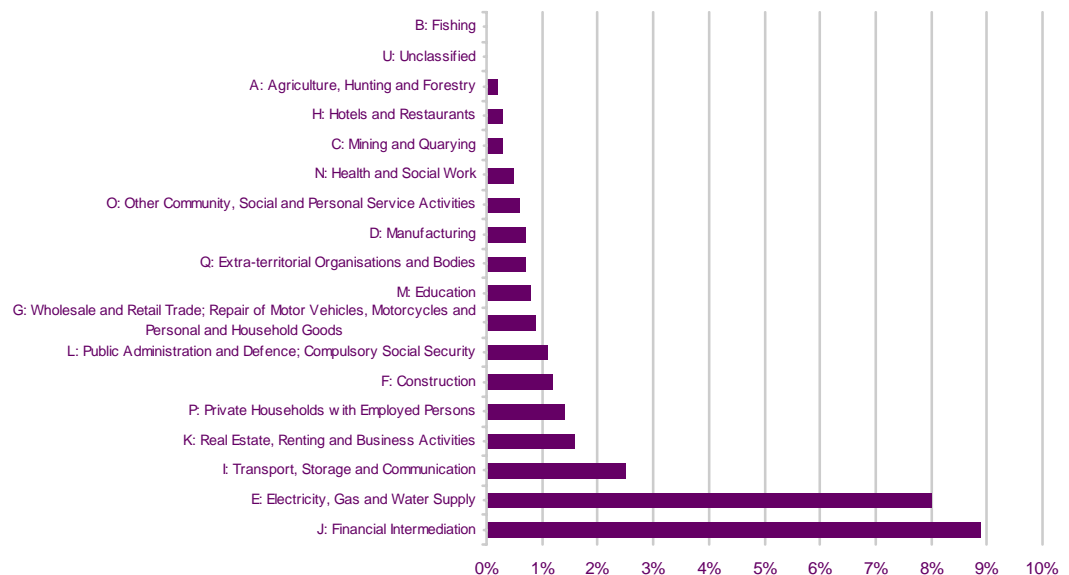
A6.11 It is interesting to note that approximately 80% of the NTS numbers occur in just five of the categories of business activity. These are:

- Category G, Wholesale and Retail Trade, Repair of Motor Vehicles, Motorcycles and Personal and Household Goods;
- Category K, Real Estate, Renting and Business Activities;
- Category J, Financial Intermediation; and
- Category I, Transport, Storage and Communication.

A6.12 However, the distribution shown in Figure 34 is strongly influenced by the overall number of sites in each category of business activity. For instance, Category G of business activity (Wholesale and Retail Trade, Repair of Motor Vehicles, Motorcycles and Personal and Household Goods) is the largest category in terms of the number of sites in the database with more than 20% of all sites in the UK and consequently has the largest number of NTS numbers. To get a better idea of the types of business that are most likely to use NTS it is useful to examine the proportion of sites (in each business activity category) that use NTS numbers.

A6.13 Figure 35 shows the proportion of sites with NTS numbers by business activity.

**Figure 35: Use of NTS numbers by business activity**



A6.14 NTS usage for most types of business activity is fairly close to the overall average of 1% of sites. However, two types of activity stand out with much higher levels of usage of NTS. These are:

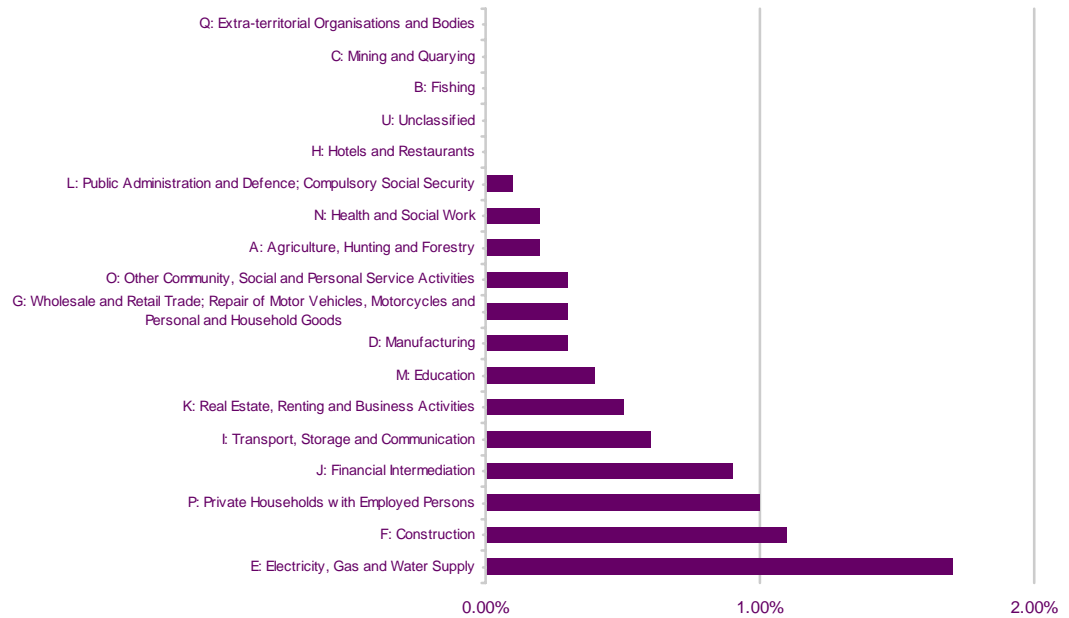
- Category J – Financial intermediation with an incidence of 9%. This category includes retail banking and insurance activities; and
- Category E – Electricity, Gas and Water Supply with an incidence of 8.1%.

A6.15 Category I – Transport, Storage and Communications is also well above the average with an incidence of 2.5%.

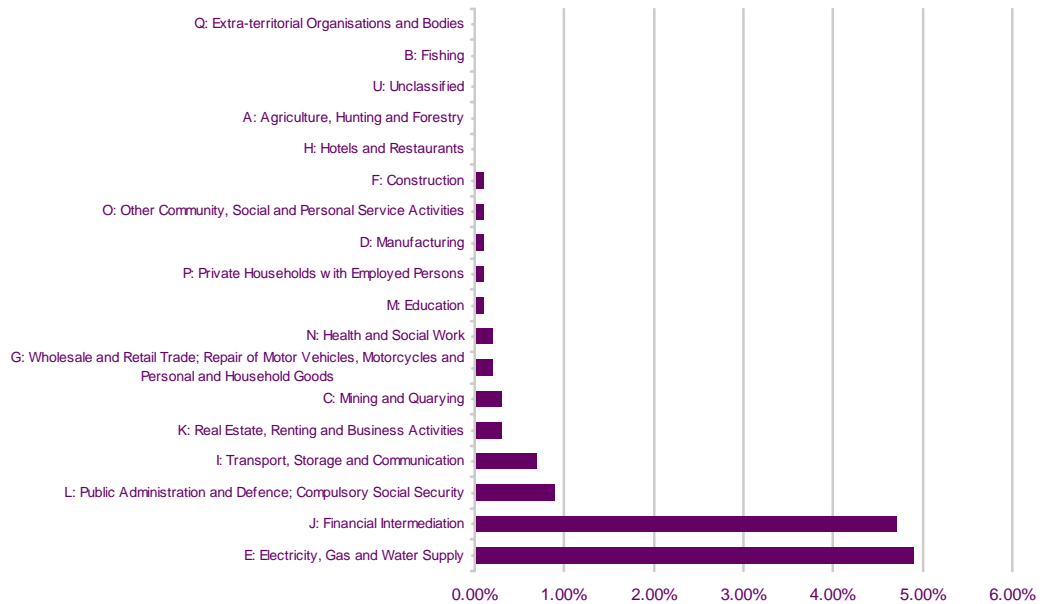
## Types of business that use each NTS number range

A6.16 Figure 36, Figure 37 and Figure 38 examine the number ranges used by different types of business activity. The figures show the proportion of sites that use NTS numbers.

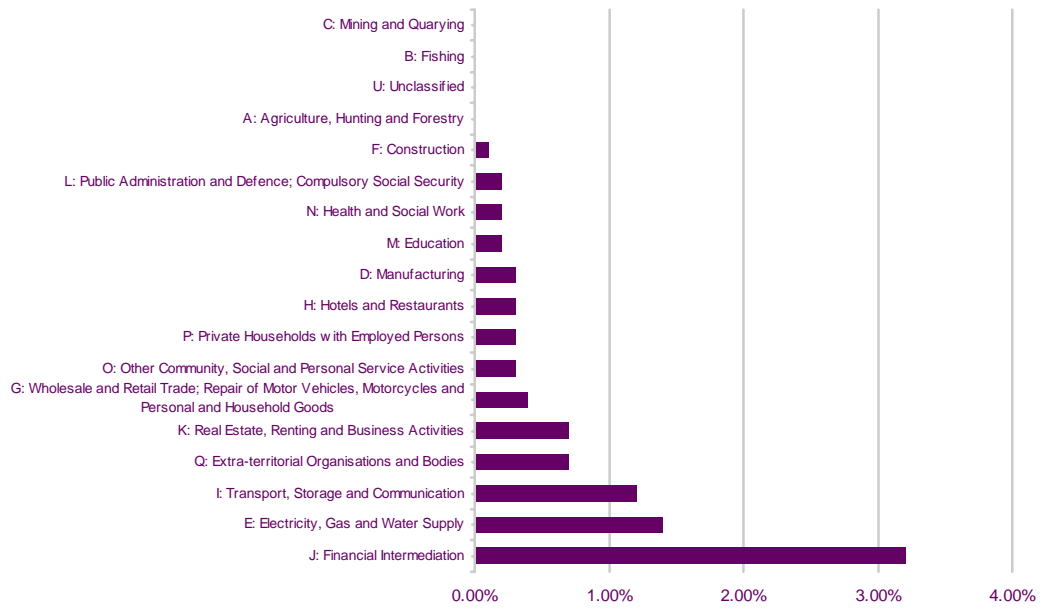
**Figure 36: Use of Freephone numbers by business activity**



**Figure 37: Use of 0845 numbers by business activity**



**Figure 38: Use of 0870 numbers by business activity**



A6.17 Figure 36, Figure 37 and Figure 38 show that the usage of each number range shows similarities with the overall usage of NTS numbers by business activity and in particular the biggest overall users of NTS numbers are prominent users of both Freephone, 0845 and 0870 ranges.

### Recent trends in NTS usage

A6.18 Ofcom purchased a business database from 2001 to enable it to review the changes in NTS usage during the last three years and in particular to estimate the level of replacement of geographic numbers with non-geographic numbers.

A6.19 Unfortunately there was a problem with the 2001 database that the supplier has been unable to resolve in time for this publication and therefore Ofcom is unable to include the result of the analysis in this publication. Ofcom hopes to issue the result of the analysis as an addendum to this publication.



## Annex 7

# Summary of consumer research

## Residential consumer research

A7.1 This annex summarises the main findings from residential consumer research carried out by Ofcom in July 2004 among GB adults<sup>37</sup> and Oftel residential consumer research carried out in August 2003 among UK adults<sup>38</sup>

### Awareness and perceptions of the cost of calling 084 and 087 numbers

A7.2 The vast majority of adults either do not know how much it costs to call 084 numbers or over-estimate their cost. Unprompted awareness of the usual price range for calls to these numbers from most fixed networks (i.e. 1p per minute-5p per minute) stands at 5% for 0844 and 15% for 0845. Awareness of the cost of calling 0845 numbers has not changed over the last year. Awareness of the usual price range (1p-5p per minute) is highest amongst ABC1 social grades<sup>39</sup> (18%).

A7.3 Unprompted awareness of the approximate pence per minute cost (i.e. 1p per minute-10p per minute) for 0870 and 0871 (21% and 9% respectively) is marginally higher than for 0845 numbers, and again highest among ABC1 social groups.

**Figure 39: Awareness of calling charges for 08 code, (prompted)**

**Base: GB adults, Aug '04 (Base: 1004)**

PPM	0845	Local geographic	'Local rate'	0870	National geographic	'National rate'
<b>Free</b>	5%	5%	2%	4%	1%	-
<b>1-5p</b>	15%	54%	47%	11%	21%	15%
<b>6-10p</b>	11%	14%	15%	10%	20%	20%
<b>11-25p</b>	11%	8%	10%	13%	19%	17%
<b>26-50p</b>	14%	3%	4%	15%	9%	11%
<b>51p-£1</b>	8%	1%	1%	9%	4%	7%
<b>£1+</b>	3%	1%	-	3%	2%	3%
<b>Don't</b>	33%	16%	21%	26%	24%	7%

<sup>37</sup> ICM Research interviewed a random selection of 1004 adults aged 18+ by telephone between 30-31 July & 1 August 2004. The survey was conducted amongst a representative sample of GB adults with a fixed line phone reflecting the GB profile of sex, age, region and housing tenure. Data has been weighted to ensure the sample is representative of GB adults.

<sup>38</sup> MORI interviewed a random selection of 2099 adults aged 15+ by face to face interview during August 2003. The survey was conducted amongst a representative sample of UK adults with a fixed line phone reflecting the UK profile of sex, age, region and housing tenure. Data has been weighted to ensure the sample is representative of UK adults.

<sup>39</sup> Broadly these are consumers who are (or are living in a household where the head of the household is) in employment in a professional, management or non-manual position. This also includes retired people previously graded ABC1 and their widows.

<b>know</b>						
<b>Mean</b>	<b>26ppm</b>	<b>8ppm</b>	<b>9ppm</b>	<b>30ppm</b>	<b>24ppm</b>	<b>24ppm</b>

A7.4 Overall, the residential consumer perception of the cost of calling 0845 and 0870 numbers is that they are too expensive, with 46% agreeing that calls to 0845 numbers cost too much and 55% agreeing that calls to 0870 numbers cost too much. This perception is perhaps unsurprising, given that consumers tend to over-estimate the cost of calling 0845 and 0870 numbers, with average estimates of the cost per minute from a fixed phone during the day, being 26 pence for 0845 and 30 pence for 0870.

A7.5 Perception of calls to 0845 and 0870 numbers being more expensive than they actually are is of course likely to be linked to the perception that they are too expensive. However most consumers do not have great confidence in their perceptions – with 72% and 76% respectively agreeing that they don't really know how much it costs to call 0845 or 0870 numbers. In total 7% claim to roughly know how much it costs to call these numbers and give an accurate estimate of the real cost.

**Perceptions of the cost of 'local rate' and 'national rate' calls**

A7.6 As shown in Figure 39 consumer perceptions of the cost of calling numbers described as 'local rate' and 'national rate' equate closely to perceptions of the cost of making local geographic and national geographic calls. Many consumers do not instinctively equate 0845 and 0870 numbers to the equivalent of 'local rate' and 'national rate' calls. If calls that are priced differently to local and national geographic calls are described as 'local rate' or 'national rate' many consumers will be misled, as the perception is that 'local rate' equals the cost of a local geographic call and 'national rate' equals the cost of a national geographic call.

**Residential consumer concerns**

A7.7 Unsurprisingly, given that the vast majority are unsure of the cost of calling 0845 or 0870 numbers, the main concerns relate to cost or lack of understanding of cost. When prompted on aspects of potential concern, the biggest concern is that companies often keep consumers on hold on these numbers, as they are getting money for the calls; this is a concern about 0845 numbers for 63% and 0870 numbers for 67% of respondents. Also of concern to a majority is advertising these numbers as 'local rate' or 'national rate' when the actual cost of calling is higher and the apparent increasing use of these number by companies which is pushing up the overall cost of making calls.

**Summary of business consumer research**

**SME consumer research**

A7.8 The following section summarises the main findings from SME research carried out by Ofcom in July 2004 among SMEs with NTS numbers<sup>40</sup>.

**Why do businesses use NTS numbers?**

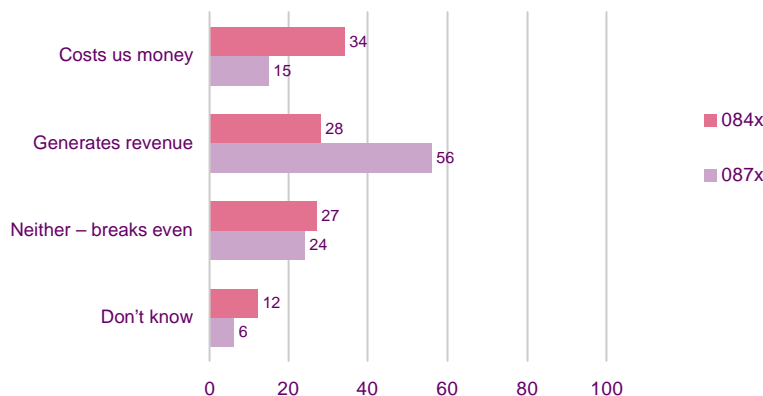
A7.9 According to Ofcom’s research, 08xx numbers are most often used for the direct benefit of the business, rather than for the benefit of the caller. Flexibility is the main reason given for use of 08xx numbers; they provide the ability to move location without changing numbers (mentioned by 28%), to ‘hide’ business’ geographic locations (20%) and also can add stature to the organisation (9%). 15% mentioned making it cheaper for callers (this was the top reason given for using 084x numbers).

A7.10 A range of services are offered on NTS numbers, although call centres and customer service lines dominate<sup>41</sup>. 080x numbers, in particular are used for sales-related calls. Almost half (45%) of businesses with 087x numbers in Ofcom’s survey use the number for their main switchboard, this is slightly lower at 39% for 084x numbers.

A7.11 On average, as shown in Figure 40 below, 084x NTS Service Providers are likely to incur losses on their NTS service, while 087x NTS Service Providers are more likely to generate a profit.

**Figure 40: Revenue generation**

*Base: All with 084x and/or 087x voice numbers: 084x (164); 087x (366)*



**Who supplies SMEs with NTS numbers and how?**

A7.12 BT is the main TCP for NTS Service Providers in Ofcom’s survey sample, it being the supplier for about a fifth of these businesses. After BT, Windsor Telecom is the main provider of 084x numbers (15%) and Opal Telecom the main provider of 087x numbers (6%) for NTS Service Providers in Ofcom’s

<sup>40</sup> WirthlinEurope interviewed 500 SMEs (businesses with between 1 and 250 employees, but excluding those with a turnover of less than £50k pa) that list 0845 or 0870 numbers in The Business Database or Dun & Bradstreet by telephone during August 2004. The survey was conducted amongst a representative sample of SMEs listing 0845 or 0870 number on these databases, reflecting the profile of business sector and number of employees. Data has been weighted to ensure the sample is representative of the SMEs listing 0845 and 0870 numbers. On Dun & Bradstreet’s database.

<sup>41</sup> 73% of all 080x numbers used in this way versus 59% of 084x and 58% of 087x numbers

survey sample. A number of other CPs are used by smaller proportions of NTS Service Providers.

- A7.13 The majority of NTS Service Providers actively sought out NTS number suppliers themselves, rather than the initial approach coming from the CP. Evidence of pro-active marketing of NTS numbers by CPs is greatest for 084x numbers, where a quarter (24%) of NTS Service Providers were approached by a CP in the first instance, this seems less prevalent for 087x numbers where 11% of NTS Service Provider were approached by a CP in the first instance.

#### **Awareness of the cost to callers**

- A7.14 The majority of NTS Service Providers in Ofcom's survey sample were aware of the approximate cost that callers pay to dial their NTS number, with two-thirds (67%) of SMEs using 0845 numbers thinking that callers pay 'local rate' and an additional 9% believing the cost to be up to 5p per minute or 5p per call. Over 4 in 10 (44%) SMEs using 0870 numbers think callers pay 'national rate' and an additional 12% think the cost was up to 10p per minute or 10p per call.
- A7.15 However this does mean that significant minorities of NTS Service Providers either do not know or over-estimate the prices that callers are actually paying.
- A7.16 There are indications that some NTS Service Providers do not fully understand the prices callers may pay, with 4 in 10 unaware that callers may pay different prices dependent on which network they call from.

#### **Reactions to changing price structure**

- A7.17 Having consistent pricing for callers seems popular for the majority of NTS Service Providers. Three-quarters (74%) have a positive view of changing the pricing structure so that all callers would pay the same on a given network.
- A7.18 Views on abolishing the link between 'local rate' and 'national rate' are mixed; 43% have a positive view of abolishing the link, while 3 in 10 have a negative one (the remainder have neutral views or weren't sure).

## Annex 8

# Summary of international benchmarking

## Introduction

A8.1 As part of the NTS Framework Re-examination project, Ofcom has undertaken an international benchmarking study of the NTS regimes in other countries. The aim of the study was to get a better understanding of non-geographic number services in other countries and to determine whether there were any lessons for the UK. The study examined:

- the availability and use of revenue sharing for the provision of value added services;
- linkages between geographic and non-geographic call tariffs (especially when in conjunction with revenue sharing); and
- dial-up internet access services since these are major users of NTS services in the UK.

A8.2 The main focus of the study was countries in the European Economic Area (EEA) where Ofcom has good contacts with NRAs but the USA was also included to get a wider perspective.

A8.3 The study was based on a programme of desk research of publicly available sources<sup>42</sup> and contacts with other national regulatory organisations. Ofcom is also grateful for the assistance of the European arm of one CP, COLT Telecom that kindly provided additional information on several European countries and a commercial perspective of their NTS regimes.

A8.4 Ofcom was able to study some countries in more detail than others due the availability of information. Results have only been included here for countries about which Ofcom has been able to obtain reasonably detailed information. Therefore, this study should not be considered as an entirely comprehensive view of NTS in the EEA or more widely.

## Key findings

A8.5 Number translation services are available in all of the countries studied, however, the study revealed a great deal of diversity between the NTS regimes particularly relating to the:

- linkage to geographic call tariffs;
- availability of revenue sharing; and
- methods used to provide dial-up internet access.

A8.6 The differences are apparently due to differences in the regulatory regimes and also the overall state of development of competition.

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<sup>42</sup> Sources included CP and NTS SP websites, NRA and other national government publications, market information from commercial sources.

A8.7 Figure 41 shows the availability of NTS services by type in the countries studied.

**Figure 41: Availability of NTS services in the countries studied**

	Freephone	PRS	Information services number ranges	Geographic tariff linkage without revenue sharing (shared tariff)	Geographic tariff linkage with revenue sharing	Internet only number ranges
Austria	✓	✓	?		✓	✓
Belgium	✓	✓			✓	✓
Finland	✓	✓	✓	✓		
France	✓	✓	✓		✓	
Germany	✓	✓	✓	✓		
Republic of Ireland	✓	✓			✓	
Italy	✓	✓			✓	✓
Netherlands	✓	✓		✓		✓
Poland	✓	✓			✓	✓
Spain	✓	✓		✓		✓
Sweden	✓	✓		✓		
Switzerland	✓	✓	✓			
UK	✓	✓			✓	
USA	✓	✓	✓			

A8.8 Freephone services and Premium Rate Services (PRS) services are available in all of the countries studied. Several countries also have PRS type revenue sharing ranges with lower price ceilings for information services. Most countries also have number ranges with retail call tariffs that are related to geographic call tariffs (for calls originated on the network of a CP with SMP). In some cases this linkage is also respected by other CPs.

A8.9 In approximately half of the countries studied revenue sharing is not permitted on the number ranges that have a geographic tariff linkage and they generally operate as traditional shared tariff ranges with both caller and called party contributing to the cost of the call (e.g. in the case of a local rate number, the caller pay a standard geographic local call tariff and the called party pays for the trunk component of the call and any intelligent routing). Since there is no revenue share these ranges are used primarily for telemarketing purposes. Where revenue sharing is permitted the shared tariff number ranges are used primarily for voice services and not dial-up internet access.

A8.10 The linkage to geographic call tariffs generally varies according to whether revenue sharing is permitted:

- where revenue sharing is not permitted there is normally a direct linkage to a geographic tariff and calls are charged at a geographic tariff (e.g. local, regional or national rate); and

- where revenue sharing is permitted the linkage to geographic tariffs has often been loosened by the regulator possibly reflecting the need of service providers to maintain their revenues against a backdrop of falling geographic call charges, particularly for off-peak or weekend rates. Tariffs are typically linked to the peak rate, making calls more expensive than geographic calls off-peak.

A8.11 There are often similarities between service number ranges and shared tariff ranges making it difficult to classify them as either service number ranges or shared tariff ranges. For example:

- Germany has number ranges with price points linked to geographic call tariffs (local, regional and national rates) and also two price points that are not directly related to a geographic tariff, and
- Switzerland's service number range has a price ceiling of the peak daytime geographic national call tariff.

A8.12 For SMP providers call origination charges are normally subject to regulatory oversight, though the mechanisms often differ from the UK and may be ex-post rather than ex-ante remedies. In contrast to NTS in the UK, call origination charges for OCPs with SMP are sometimes commercially agreed.

### **Dial-up internet access**

A8.13 Figure 42 gives an overview of the charging models that are commonly used for dial-up internet access. The table shows five charging models loosely based on the generic regulatory models described in Section 4. Here the five models are used to indicate the interconnection model used, how retail call tariffs are set and whether there is any linkage with geographic tariffs. As described above, the regulation of origination charges varies and origination charges are not always cost-based, therefore origination charges are ignored here. Indirect access is available in most of the countries surveyed and may be used by some service providers although not shown here unless it is known to be particularly popular.

**Figure 42: charging models used for dial-up internet access**

	<b>A 0845/0870 Model</b>	<b>B Competitive Pricing</b>	<b>C Indirect Access</b>	<b>D Geographic</b>
<b>Austria</b>			✓	
<b>Belgium</b>		✓		✓
<b>Finland</b>				✓
<b>France</b>		✓		
<b>Germany</b>		✓		
<b>Republic of Ireland</b>	✓			
<b>Italy</b>		✓		
<b>Netherlands</b>		✓		
<b>Poland</b>				✓
<b>Spain</b>		✓		
<b>Sweden</b>		✓	✓	
<b>Switzerland</b>		✓		
<b>UK</b>	✓	✓	✓	
<b>USA</b>				✓

A8.14 Figure 42 shows that with the exception of the Republic of Ireland which has a range that operates much like the UK's 0845 range that dial-up internet access is not provided on number ranges where tariffs are linked to geographic call charges. The competitive pricing model (Model B) predominates, but the geographic model (Model D) and indirect access (Model C) are each popular in three of the countries studied.

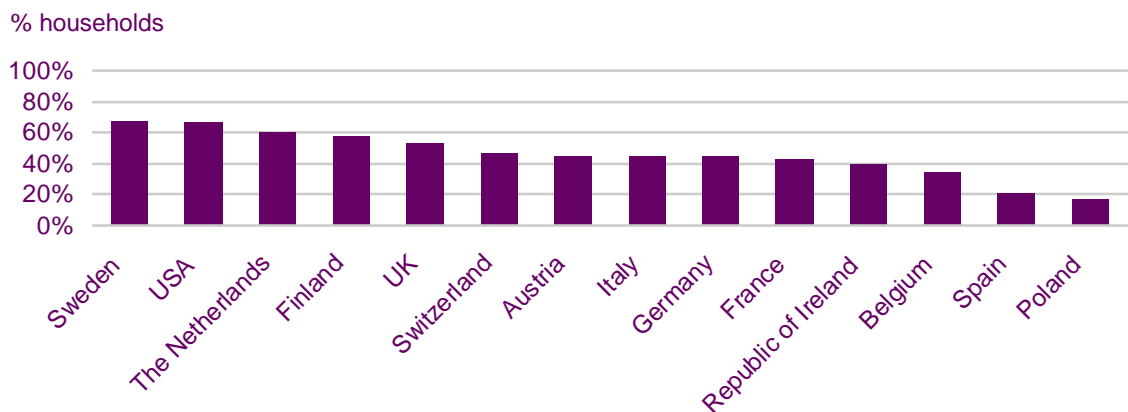
A8.15 Within the competitive pricing model varying approaches are used:

- internet number ranges: as shown in Figure 42 approximately half of the countries studied have provided number ranges especially for internet access and have often mandated that dial-up internet services use these number ranges. Two types of charging mechanism are used:
  - either the internet number operates as a freephone number in which case the customer is billed by the service provider who pays the TCP for the call, and the TCP pays the OCP for call origination; or
  - a revenue sharing arrangement is used in which case the TCP/service provider sets the termination payment that is collected from the customer by the OCP as part of the call charge.
- freephone: ordinary freephone number ranges are also commonly used for services where the service provider bills the customer;
- PRS: in Germany PRS number ranges are used for internet access.



- A8.16 Where the geographic model is used, consumers pay their CP for their calls and must also subscribe to an internet access service.
- A8.17 Where the indirect access method is used, a carrier selection code or carrier preselection is used to route dial-up internet access calls from an SMP OCP's network to another CP's network. The CP pays the SMP provider for call origination and the consumer may pay either the CP or the service provider for the call and internet access
- A8.18 The key feature of Models B and C is that they allow the service provider (in conjunction with the TCP) to set the retail prices for their services for customers of OCPs with SMP. This is in direct contrast to the 0845/0870 ranges in the UK where service providers do not set their retail prices and where terminating revenues are altered whenever BT changes its retail prices or discounts for the 0845/0870 ranges. This is possibly the main reason why other NRAs report that their NTS regimes are not generally subject to frequent disputes and that they have no plans to make major changes to the regulatory regimes for NTS.
- A8.19 Figure 43 shows household internet penetration in the countries studied. Whilst these figures include both metered and unmetered dial-up access and broadband, these figure are broadly representative of the success of dial-up internet access since broadband has to a large extent been substitutional to dial-up access. Figure 44 tabulates household internet access penetration by access type for a subset of the countries reviewed during the study (because this information was not available for all the countries studied).

**Figure 43: Internet penetration<sup>43</sup>**



Source: Analysys/Ofcom

<sup>43</sup> Latest available figures for 2003/2004 varies by country.

**Figure 44: Internet penetration by access type**

	Broadband	ISDN	Narrowband (unmetered)	Narrowband (metered)	Overall
<b>Republic of Ireland</b>	2.5%	2%	0%	36%	40%
<b>France</b>	16%	1%	0%	26%	43%
<b>Italy</b>	13%	3%	0%	29%	45%
<b>Germany</b>	12%	4%	0%	29%	45%
<b>UK</b>	14%	1%	23%	12%	50%
<b>Australia</b>	8%	1%	34%	16%	58%
<b>USA</b>	24%	1%	29%	14%	67%
<b>Sweden</b>	23%	1%	0%	44%	68%

Source: Analysys

- A8.20 Whilst there are differences in the levels of internet penetration between the countries, there is no obvious correlation between internet penetration and the type of model used to facilitate dial-up internet access. Also other factors such as average household income and personal computer penetration influence internet penetration. Given that countries that don't use an NTS revenue sharing model for dial-up internet access have amongst the highest internet penetrations in the world (e.g. Finland 58%, Sweden 68% and USA 67%) it seems reasonable to conclude that models other than the NTS revenue sharing model are also capable of supporting high levels of dial-up internet penetration.

## Annex 9

# Details of legal framework

### The EU regulatory framework

- A9.1 A new EU regulatory framework for electronic communications was implemented in the UK on 25 July 2003 by the Act<sup>44</sup>.
- A9.2 As a consequence of this new regulatory regime, a number of market reviews were carried out by the Director up to 29 December 2003. Since that date Oftel joined four other communications regulators to form Ofcom.

### The BT NTS call origination condition

- A9.3 Oftel, on behalf of the Director, published the Call Origination Market Review. It is available on Ofcom's web site at:  
[http://www.ofcom.org.uk/legacy\\_regulators/oftel/narrowband\\_mkt\\_rvw/fixednarrowband\\_statement.pdf](http://www.ofcom.org.uk/legacy_regulators/oftel/narrowband_mkt_rvw/fixednarrowband_statement.pdf)
- A9.4 In this review, Oftel established the BT NTS Call Origination Condition as a remedy to the proposal that BT has SMP in the markets identified in that review. Under this obligation, BT must provide NTS call origination (i.e. the origination of NTS calls and the retailing of those calls to the end-user on behalf of the purchaser of NTS Call Origination) on fair and reasonable terms, conditions and charges. In addition, the provision of NTS call origination services is subject to the other SMP conditions in the Call Origination Market Review, which apply to all requests for network access, (for example call origination services). These other conditions regulate such matters as the basis of charges and the requirement that there be no undue discrimination.

### The Act and the Plan

- A9.5 Ofcom regulates the communications sector under the framework established by the Act. Ofcom's duties include (under section 63 of the Act) the duty "to secure that what appears to them [*i.e. Ofcom*] to be the best use is made of the numbers that are appropriate for use as telephone numbers". The legal framework governing the numbering aspects of this statement is contained within the Act.
- A9.6 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-

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<sup>44</sup> The Act implemented four of the Directives: Directive 2002/21/EC (the Framework Directive); Directive 2002/19/EC (the Access Directive); Directive 2002/20/EC (the Authorisation Directive); and Directive 2002/22/EC (the Universal Service Directive). Directive 2002/58/EC (the Privacy Directive) was implemented via Regulations on 11 December 2003.

- the numbers that they have determined to be available for allocation by them as telephone numbers’
  - such restrictions as they consider appropriate on the adoption of numbers available for allocation in accordance with the Plan; and
  - such restrictions as they consider appropriate on the other uses to which numbers available for allocation in accordance with the Plan may be put.
- A9.7 Ofcom consulted on the Plan, the first version of which was published on 22 July 2003 and came into force on 25 July 2003. Part A of the Plan sets out the numbers that are available for allocation as Telephone Numbers in accordance with section 56(1)(a) of the Act. This includes NTS numbers.
- A9.8 Ofcom recently published on 22 July 2004 its Final Statement on “Modifications to the National Telephone Numbering Plan and Applications Form for 08 Telephone Numbers to reflect retail price and numbering arrangements for calls to 0845 and 0870 numbers” which is available on Ofcom’s web site at: [http://www.ofcom.org.uk/consultations/past/0845/modified\\_tel\\_nr/](http://www.ofcom.org.uk/consultations/past/0845/modified_tel_nr/). That statement amended the designation of 0844, 0845, and 0870 and 0871 numbers contained within the Plan. The most recent version of which was published on 6 September 2004. Since then Ofcom has proposed a further revision to the Plan in “A review of the numbering arrangements for Premium Rate Services” published 26 August 2003.
- A9.9 A number of options proposed in this consultation would require further changes to be made to the designations in the Plan. This is explained in more detail in Section 8. The Act provides for Ofcom to review and revise the Plan. Section 56(2) states that:
- ‘It shall be OFCOM’s duty-
    - from time to time to review the National Telephone Numbering Plan; and
    - to make any revision of 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.’
- A9.10 Section 60 of the Act advises on procedures for modifying documents referred to in the numbering conditions including, specifically, the Plan. Section 60(2) of the Act provides that:
- ‘OFCOM must not revise or otherwise modify the relevant provisions unless they are satisfied that the revision or modification is-
  - objectively justifiable in relation to the matters 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 it is intended to achieve, transparent.’
- A9.11 Section 60(3) further provides that:

- 'Before revising or otherwise modifying the relevant provisions, OFCOM must publish a notification-
- stating that they are proposing to do so;
- specifying the Plan or other document that they are proposing to revise or modify;
- setting out the effect of their proposed revisions or modifications;
- giving their reasons for making the proposal; and
- specifying the period within which representations may be made to OFCOM about their proposal.'

A9.12 In proposing any modification to the Plan Ofcom must also have regard to section 63 of the Act, which provides that:

- 'It shall be the duty of OFCOM, in the carrying out of their functions under sections 56 to 62-
- 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
- to encourage efficiency and innovation for that purpose.'

A9.13 As well as listing the numbers available for allocation, the Plan also sets out restrictions on the Adoption and other uses of those numbers in accordance with sections 56(1)(b) and 56(1)(c) of the Act. Part B1 of the Plan states that:

- 'Those to whom Ofcom has allocated any telephone number listed in Part A of the Plan shall not adopt or otherwise use them, except in accordance with the applicable designation given for that number range.'

### **The Numbering General Condition**

A9.14 Ofcom is also permitted to set general conditions under section 45 of the Act, including requirements in connection with the allocation, adoption and use of telephone numbers. Condition 17 ('the Numbering General Condition') requires (amongst other things) that numbers are adopted in line with the Plan. Condition 17.4 states that:

'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.'

A9.15 Paragraphs A7.19 to A7.28 below explain how these requirements take effect in practice in the context of NTS numbers.

## The National Numbering Scheme

- A9.16 The Plan supplies broad designations for number ranges, but does not provide detail about sub-ranges. This is to avoid the need to frequently consult on amendments to the Plan, which do not represent a policy change or have a material effect on stakeholders. Detail on designations of sub-ranges is provided in the National Numbering Scheme ('the Scheme'), which is a day to day record of telephone numbers allocated by Ofcom in accordance with the Plan, and as provided for in section 56(3) of the Act. The Scheme, therefore, tends to provide finer detail than the Plan on designations for NTS number ranges.
- A9.17 It is worth noting that the Numbering General Condition does not impose a direct obligation on Communications Providers to act in accordance with the Scheme, as the legal basis of the Scheme is only as a record of numbers allocated.

## Interaction between the various elements of the legal framework

- A9.18 This Annex has already set out the individual provisions which together form the regulatory framework for NTS. However, it is important to understand how each of the provisions work as a package and the combined effect of the regulatory framework. Therefore Ofcom considers that it would be useful to set out the potential interaction between the various elements of the regulatory framework.

## The plan and numbering obligations on the TCP

- A9.19 As already stated the Plan lists the numbers available for allocation. In the case of NTS it is usually the TCP that is allocated a block of numbers. When requesting such an allocation TCPs are able to select from a number of ranges which according to the Plan have different designations for use. For example, a TCP may select a 080 number on the basis that its designation is as a range where no charge is made to customers unless where charges are notified to customer at the start of the call. Equally a TCP may select an 0908 number block on the basis that the designation of the 0908 range is as a range for sexual entertainment services at a premium rate for BT customers.
- A9.20 The Plan is a document setting out the numbers that Ofcom has determined as available for allocation. Ofcom is able to set out in the Plan such restrictions on the adoption or use of numbers that it considers appropriate. In the case of NTS numbers Ofcom has set out the designations which it considers should be attributed to particular number ranges.
- A9.21 It is Part B1 of the Plan that places a restriction on telephone numbers such that those to whom Ofcom has allocated a number must only adopt or otherwise use that number in accordance with the designation given in the Plan. In this sense the TCP is restricted in its use of NTS numbers.

- A9.22 In addition, pursuant to Condition 17.4 of the Numbering General Condition Communications Providers are required to have a numbering plan for the numbers that have been allocated to them and that that numbering plan must be consistent with the Plan. Again, this places a restriction on a TCP's use of NTS numbers.
- A9.23 It is also worth mentioning Condition 17.8 of the Numbering General Condition which requires Communications Providers to take all reasonably practicable steps to secure that their customers comply with the provisions of the Plan. This requires TCPs to take steps to ensure that those to whom the TCP sub-allocates numbers, for example NTS Service Providers, also use those numbers in accordance with the designations in the Plan.
- A9.24 On the face of it this position seems fairly straight forward. However, the way that NTS arrangements work, in that it is the TCP that is allocated the NTS number but it is often another Communications Provider that originates the call (i.e. an OCP), suggests that the application of these obligations requires further analysis.

#### **NTS call origination obligations on OCPs**

- A9.25 The practical application of the requirements in the Plan and General Condition 17 differ depending on whether the Communications Provider originating the call has SMP in call origination and more specifically has an obligation to provide NTS Call Origination, or not. For all OCPs other than BT there is no SMP related requirement to provide NTS Call Origination. Therefore for those non-BT OCPs there are no regulatory obligations either requiring those OCPs to originate NTS calls at the request of the TCP or to do so on regulated terms. They are able to decide commercially the basis on which they may or may not originate NTS calls.
- A9.26 However, BT, being subject to the BT NTS Call Origination Condition, does have an obligation to provide NTS Call Origination where there is a reasonable request from a Third Party, i.e. a TCP. NTS Call Origination is defined in the BT NTS Call Origination Condition to mean originating and retailing NTS calls *on behalf of* the person requesting the origination, i.e. the TCP. Provided the TCP's request is reasonable (including that it would not require BT to be in breach of its other call origination obligations), the BT NTS Call Origination Condition requires BT to originate the TCP's NTS call on the terms requested by the TCP.
- A9.27 In these circumstances Ofcom considers that the combination of the obligations on the TCP to use numbers in accordance with their designations in the Plan and BT's obligation to provide NTS Call Origination on the reasonable terms conditions and charges requested by the TCP would mean that the TCP would need to comply with the requirements set out in Part B1 of the Plan and Conditions 17.4 and 17.8 of the Numbering General Condition. The practical effect of the two sets of regulation (on the TCP and BT) require the TCP to request NTS Call Origination in a way that ensures compliance with the designations in the Plan and that BT is required to provide the NTS call on that basis.

## General duties of Ofcom

- A9.28 The Act confers duties on Ofcom to be observed in the carrying out of its functions. Section 3(1) of the Act gives these duties as:
- 'to further the interests of citizens in relation to communications matters; and
  - to further the interests of consumers in relevant markets, where appropriate by promoting competition'.
- A9.29 As part of the fulfilment of these duties, it is Ofcom's responsibility to secure the availability throughout the UK of a wide range of electronic communications services (ECSs), having regard to the interests of consumers in respect of choice, price, quality of service and value for money.

## Duties for the purpose of fulfilling Community obligations

- A9.30 In addition to its general duties as to 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. Of particular relevance to this review are the following duties:
- to promote competition:
    - in relation to the provision of electronic communications networks and electronic communication services; and
    - in relation to the provision and making available of services and facilities that are provided or made available in association with the provision of electronic communications networks or electronic communications services
  - the requirement to promote the interests of all persons who are citizens of the European Union;
  - the requirement to take account of the desirability of Ofcom's carrying out their functions in a manner which, so far as practicable, does not favour –
    - one form of electronic communications network, electronic communications service or associated facility, or
    - one means of providing or making available such a network, service or facility over another;
  - the requirement to encourage, to such extent as Ofcom consider appropriate for the purpose mentioned in subsection (8), the provision of network access and service interoperability;

That purpose is the purpose of securing –



- efficiency and sustainable competition in the markets for electronic communications networks, electronic communications services and associated facilities; and
- the maximum benefit for the persons who are customers of communications providers and of persons who make such facilities available.

## Annex 10

# Ofcom's Policy Objectives

A10.1 At a high level, the policy objectives which have been taken into account in carrying out the current review derive from the Act, in particular Ofcom's general duties in section 3 of the Act and Ofcom's duties for the purpose of fulfilling the six European Community requirements are set out in section 4 of the Act. Further details of these duties are set out at Annex 9, but the most relevant of these duties for present purposes may be broadly characterised as furthering the interests of consumers, promoting competition, and encouraging the provision of network access and service interoperability.

A10.2 In the process of elaborating these broad objectives for the purpose of option evaluation, a distinction has been drawn between:

- medium and longer term policy objectives, which are unconstrained by the current situation; and
- criteria related to the objective of minimising the disruption involved in implementing the relevant policy option, given the current position.

A10.3 The objectives that Ofcom has identified are summarised in Figure 45 below.

**Figure 45: Policy Objectives for Development of Policy Options**

Medium & Long Term Objectives	Transitional Objectives
Promoting consumer interests	Minimising consumer disruption
Promoting competition	Minimising costs of number migration
Promoting access and interconnection	Minimising required expenditure on billing and interconnect systems
Implementing Ofcom's regulatory principles	Minimising negative revenue impact on TCPs and NTS Service Providers
	Making it as easy as possible to communicate the changes to stakeholders

A10.4 Each of the high level of objectives specified in Figure 45 is supported by a set of evaluation criteria (described in the following sections) that have been used to evaluate the policy options described in Section 4.

### Promoting consumer interests

A10.5 Ofcom's initial view is that consumer interests will be promoted by the following criteria.

**Figure 46: Evaluation criteria supporting the promotion of Consumer Interests**

Criteria	Benefit
Downward retail price pressure	Consumers will benefit if there is ongoing pressure to reduce retail prices for NTS calls, preferably generated by competitive market forces but, failing that, through regulation (where possible).
Tariff transparency	It is important to ensure that consumers have easy access to accurate information on the cost of NTS calls, so that they can make informed decisions about their use of those services.
Promoting service innovation and availability	One of the achievements of the current NTS regime is that it has promoted a considerable amount of innovation in the development and provision of services, to the benefit of UK consumers. Future policy should aim to maintain this situation.
Sustaining narrowband metered internet access model	One of the specific benefits of the current regime is that it has played a significant part in stimulating the market for pay-as-you-go internet services. It is anticipated that this market will continue to have an important role in ensuring that UK consumers have widespread access to internet services. Any proposals to change the existing policy regime should take account of this objective.
Promoting innovative billing	The present NTS regime was explicitly designed to support a particular micro payment mechanism, through the sharing of revenues collected via the phone bill. With advances in technology, however, an increasingly wide range of alternative micro payment mechanisms are becoming available, using other platforms such as the internet and Short Messaging Services (SMS). Future NTS policy should be designed to ensure that these alternative micro payment technologies are able to compete on a level playing field with revenue sharing through the phone bill.
Control of adult content and other higher risk services	The provision of adult services and other higher risk services raises additional regulatory concerns, related for example to decency and the protection of minors in the case of adult services. Under the current regulatory framework it was intended that such services would be provided on the 09 range and would be subject to regulation by ICSTIS. Future policy should seek to ensure that these services are subject to appropriate regulatory controls, regardless of the number ranges through which they are provided.

### Promoting competition

A10.6 Ofcom's initial view is that competition will be promoted by the following criteria.

**Figure 47: Evaluation criteria supporting Promotion of Competition**

Criteria	Benefit
Providing TCP/SP revenue certainty	Ofcom recognises that it is entirely legitimate for TCPs and SPs to expect to have some degree of influence or control over the revenues they receive for the termination of NTS calls, as they would in an effectively competitive market. One of the objectives of future policy should be to meet this expectation.
Providing NTS SP pricing flexibility	One of the most important ways in which NTS SPs can compete with each other is through the prices charged for accessing their services. Such price competition will only exist to the extent that individual NTS SPs have the freedom to select the prices charged to callers. This objective is closely related to the consumer objective of maintaining downward pressure on retail prices.
Minimising SP entry barriers	Competition between NTS SPs, and the associated consumer benefits, is likely to be maximised if it is comparatively easy for new NTS SPs to enter the market. The current NTS regime minimises entry barriers by providing a simple and cost-effective method for NTS SPs to bill consumers for services and to collect revenues from them.

### Promoting access and Interconnection

A10.7 Ofcom's initial view is that access and interconnection will be promoted by the following criterion.

**Figure 48: Evaluation criterion for access and interconnection**

Criterion	Benefit
facilitating non-SMP negotiations	One of Ofcom's duties is to promote network access and service interoperability, for the benefit of both customers and the providers of networks and services. Such access and interoperability could be improved by increasing the extent to which non-SMP CPs interconnect their networks directly with each other, for the purpose of providing NTS services

### Implementing Ofcom's regulatory principles

A10.8 Ofcom's regulatory principles were set out in its Annual Plan for 2004/2005<sup>45</sup>, and are reproduced below.

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<sup>45</sup> Part 1, Section 5

## Ofcom's Regulatory Principles

- Ofcom will regulate with a clearly articulated and publicly reviewed annual plan, with stated policy objectives.
- Ofcom will intervene where there is a specific statutory duty to work towards a public policy goal which markets alone cannot achieve.
- Ofcom will operate with a bias against intervention, but with a willingness to intervene firmly, promptly and effectively where required.
- Ofcom will strive to ensure its interventions will be evidence-based, proportionate, consistent, accountable and transparent in both deliberation and outcome.
- Ofcom will always seek the least intrusive regulatory mechanisms to achieve its policy objectives.
- Ofcom will research markets constantly and will aim to remain at the forefront of technological understanding.
- Ofcom will consult widely with all relevant stakeholders and assess the impact of regulatory action before imposing regulation upon a market.

A10.9 Ofcom's regulatory principles have been taken into account in both the development and evaluation of the various policy options. In relation to these principles Ofcom notes that the current NTS regime has consistently required a high degree of regulatory intervention to maintain since its inception in 1996 and also that it has generated regulatory dependence for some TCPs who generate a significant proportion of their revenues from NTS. Therefore Ofcom has two specific objectives in relation to its regulatory principles:

- to reduce the amount of regulatory involvement required to maintain the NTS regime; and
- to minimise regulatory dependence.

## Minimising consumer disruption

A10.10 Ofcom's initial view is that transitional consumer disruption will be minimised by the following criteria.

**Figure 49: Evaluation criteria for minimising transitional disruption for consumers**

Criteria	Benefit
Minimising short-term price increases	Some of the policy options considered may promote lower prices in the longer term, but could lead to higher prices for some consumers in the short-term. These considerations need to be carefully balanced.
Minimising short-term confusion over prices	Ofcom's consumer research commissioned as part of this policy review shows that the vast majority of adults do not know how much it costs to call NTS numbers. Any further confusion over prices, even in the short-term, should if possible be avoided
Minimising the impact on the viability of PAYG	Ofcom would be concerned if there were risk that a change in NTS regulatory policy could adversely affect the viability of PAYG internet provision. Such an effect

internet services	might cause disruption, not only to the service providers affected, but also to consumers who could be obliged find an alternative supplier of internet access
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### **Minimising transitional revenue impact**

A10.11 Ofcom's initial view is that the transitional revenue impact of any change needs to be considered along the following lines.

#### *Revenue Impact for TCPs*

A10.12 For a number of TCPs, NTS call termination is a significant source of revenue, and investments have been made in the expectation that access to that revenue stream will continue. Whilst Ofcom does not believe that regulatory policy should be driven by the interests of any particular category of stakeholder, the potential for short-term negative effects on the suppliers of call termination is one of the factors that should be taken into account when evaluating policy options.

#### *Revenue impact on NTS service providers*

A10.13 As previously discussed, NTS numbers are used to access a very wide range of services, and the extent to which NTS SPs rely on revenue sharing to fund their services is highly variable. However, some of the policy options considered in Sections 4 and 6 could lead to a reduction in the revenues of NTS SPs or a specific category of them. In some cases, such an effect could threaten the viability of the NTS SP, and cause it to exit the market. Negative effects of this kind should be factored into the evaluation of options, even if they are likely to lead to a more efficient industry structure in the longer term.

### **Minimising billing and interconnect system expenditure**

A10.14 Under some of the policy options considered below, BT would need to upgrade its billing systems (as would other CPs if they wished to match BT's billing capabilities), to enable them to support:

- retail tariffing at a more granular level e.g. by blocks of 10,000 numbers rather than 100,000; and/or
- as a transit operator, to pay call termination charges that varies according to the originator of the call.

A10.15 Ofcom would not wish to introduce a policy which imposed costs that were disproportionate to the associated benefits.

### **Minimising number migration costs**

A10.16 Similarly, Ofcom recognises that policy initiatives which required, or were likely to cause, the migration of NTS SPs to new numbers, would impose short-term costs on both the NTS SPs concerned and their customers.

Ofcom would seek to ensure that any transitional costs of this kind were outweighed by associated benefits.

**Ease of communication**

A10.17 Ofcom regards it as essential that any new policy initiative should be clearly explained to interested parties, both in terms of the rationale for the policy change and the likely impact on stakeholders. Given the complexity of the existing NTS regulatory regime, it is especially important in this case that policy proposals should be framed with this objective in mind.

## Annex 11

# Evaluation of pricing and interconnect options

### Option 1: Status Quo

A11.1 Comments on Option 1, in terms of the evaluation criteria described in Annex 10, are set out in Figure 50

**Figure 50: Detailed comments on Option 1 against evaluation criteria**

Objective/criterion	Comment
<p><b>Medium/long-term objectives</b></p> <p><u>Promoting consumer interests</u></p> <ul style="list-style-type: none"> <li>downward retail price pressure</li> </ul>	<p>Weakening of link between 0845/0870 and local/national call prices has reduced downward price pressure. Further migration from 0845/0870 to 0844/0871 could create more downward price pressure through competition between NTS SPs.</p>
<ul style="list-style-type: none"> <li>tariff transparency</li> </ul>	<p>Problem of misleading advertising likely to persist, given loose connection between 0845/0870 and local/national calls. Transparency could be improved through initiatives to raise consumer awareness.</p>
<ul style="list-style-type: none"> <li>promoting service innovation and availability</li> </ul>	<p>Although existing policies have promoted the availability of a wide range of services, further reductions in BT's retail rates for local and national calls could lead to a future decline in service availability on 0845/0870 numbers.</p>
<ul style="list-style-type: none"> <li>sustaining narrowband metered internet access model</li> </ul>	<p>PAYG internet access has been stimulated by revenue-sharing opportunities on 0845. However, ISPs may need to migrate their customers to new NTS number ranges if the price of 0845 calls for BT customers continues to fall.</p>
<ul style="list-style-type: none"> <li>promoting innovative billing</li> </ul>	<p>Perpetuation of regulated revenue sharing would do nothing to promote development of alternative micro payment mechanisms.</p>
<ul style="list-style-type: none"> <li>controlling adult content and other higher risk services on 087 numbers</li> </ul>	<p>Would need to be addressed through additional measures, notably extension of ICSTIS regulation to cover all adult services.</p>
<p><u>Promoting competition</u></p> <ul style="list-style-type: none"> <li>Providing TCP/SP revenue certainty</li> </ul>	<p>Problem of revenue uncertainty likely to continue though some improvement possible through migration of NTS SPs from 0845/0870 to 0844/0871.</p>
<ul style="list-style-type: none"> <li>Providing NTS SP pricing flexibility</li> </ul>	<p>No NTS SP price flexibility on 0845/0870, though some improvement possible through migration from 0845/0870 to 0844/0871.</p>
<ul style="list-style-type: none"> <li>minimising NTS SP entry barriers</li> </ul>	<p>Would keep entry barriers at existing low level.</p>



Objective/criterion	Comment
<u>Promoting access</u> <ul style="list-style-type: none"> <li>• facilitating non-SMP negotiations</li> </ul>	Current regime has limited the incentives for direct interconnection between non-SMP OCPs and TCPs.
<u>Ofcom regulatory principles</u> <ul style="list-style-type: none"> <li>• reduce regulatory intervention/ minimise regulatory dependence</li> </ul>	Current regulatory regime has created a high degree of regulatory dependence, especially amongst TCPs and NTS SPs.
<b>Transitional objectives</b> <u>Minimise consumer disruption</u> <ul style="list-style-type: none"> <li>• minimising short-term price increases</li> </ul>	No direct effects.
<ul style="list-style-type: none"> <li>• minimising short-term price confusion</li> </ul>	No direct effects.
<ul style="list-style-type: none"> <li>• Minimising impact on viability of PAYG internet</li> </ul>	No direct effects.
<u>Minimise costs of number migration</u>	Likely to involve further gradual (possibly accelerating) migration from 0845/0870 to 0844/0871.
<u>Minimise expenditure on billing and interconnect system</u>	No changes required to billing and interconnect systems.
<u>Transitional revenue impact</u> <ul style="list-style-type: none"> <li>• TCPs</li> </ul>	No direct effects.
<ul style="list-style-type: none"> <li>• OCPs</li> </ul>	No direct effects.
<ul style="list-style-type: none"> <li>• NTS SPs</li> </ul>	No direct effects.
<u>Ease of Communication</u>	Relatively straightforward.

A11.2 The overall picture is that Option 1 performs reasonably well in terms of service availability and downward retail price pressure but does not deal directly with the other issues discussed in Section 3. Those issues are considered in turn below.

### **Tenuous link between 0845/0870 and geographic prices**

A11.3 The disconnect between 0845/0870 prices and BT's standard rates for local and national calls would persist under Option 1, and would probably worsen over time e.g. as changing network cost structures erode the rationale for distance-based charging. To the extent that NTS SPs and TCPs moved to the 0844/71 ranges, the significance of the issue would be reduced.

### **Limited consumer price awareness**

A11.4 As a pricing and interconnect model, Option 1 would do nothing to address the issue of low consumer price awareness. This issue could, however, be tackled through some of the additional consumer protection measures described in Section 6. More specifically, the ASA initiative and the proposed OCP CoP would both contribute to raising consumer awareness. The more radical option of pre-recorded announcements and splash boxes at the start of all 084/087 voice and data calls could also address the issue

in a very direct manner. Bringing 084/087 calls within the ambit of ICSTIS regulation would also be likely to have a significant effect as it could, for example, lead to a requirement to indicate the price of calls on all promotional material.

### **Replacement of geographic calls with more expensive NTS calls**

A11.5 Under Option 1, the growing replacement of geographic calls with more expensive NTS calls would also need to be addressed through the additional consumer protection measures identified in Section 6. The COI 'better practice guidance' for government contact centres and the proposed TCP CoP would both help to raise awareness of the issue amongst organisations that use NTS numbers, and should go some way towards discouraging their inappropriate use. More radical measures, such as pre-recorded call announcements, splash boxes and the extension of ICSTIS regulation to 084/087 numbers could also have a role in alerting consumers to the price of 084/087 calls, and discouraging inappropriate replacement of geographic calls with NTS calls.

### **Call centre waiting times**

A11.6 Under Option 1, this issue would need to be addressed through the additional consumer protection measures discussed in Section 6. The COI 'better practice guidance' for government contact centres and the proposed TCP CoP would both be designed to encourage best practice amongst those running call centres, and measures to raise consumer price awareness would help to reduce consumer detriment associated with long waiting times.

### **Misleading advertising**

A11.7 Given the continued link between 0845/0870 and local/national geographic call prices for BT customers, misleading advertising is still likely to be an issue under Option 1. As noted in Section 6, Ofcom has been working with the ASA/CAP to create guidance on the advertising of 084/087 services. Measures aimed at raising consumer awareness (as discussed above) would also help to reduce the consumer harm caused by misleading advertising. If ICSTIS regulation were to be extended to 084/087 numbers, this could also provide a vehicle for ensuring the accuracy of any pricing information included in promotional material for 084/087 services.

### **Controlling adult content and other higher risk services on 087 numbers**

A11.8 This issue could be tackled by bringing all adult content and other higher risk services within the ambit of ICSTIS regulation, regardless of the price at which they are provided.

### **TCP/SP revenue uncertainty on 0845/0870 calls**

A11.9 This would continue to be an issue under Option 1. Ofcom's expectation is that, in order to overcome the revenue uncertainty, an increasing number of NTS SPs/TCPs would migrate to the 0844/0871 number ranges, so that the

significance of the problem would decline over time. It is recognised, however, that there would be some costs associated with this migration, and that it would be disruptive for consumers.

### OCPs' lack of control over termination payments

A11.10 The situation facing the non-SMP OCPs would remain unchanged under Option 1. As noted in Section 3, Ofcom believes that the issue could best be addressed through commercial negotiations between non-SMP OCPs and TCPs.

### BT's NCCN 500 charges

A11.11 The issues raised by BT's NCCN 500 charges are considered in the NTS Call Termination Market Review which has been carried out in parallel with this policy review.

## Option 2: Extended Retail Price Competition

A11.12 Ofcom's comments on Option 2, in terms of the detailed evaluation criteria described in Annex 10, are set out in Figure 51.

**Figure 51: Detailed comments on Option 2 against evaluation criteria**

Objective/criterion	Comment
<p><b>Medium/long-term objectives</b></p> <p><u>Promoting consumer interests</u></p> <ul style="list-style-type: none"> <li>downward retail price pressure</li> </ul>	Should lead to greater scope for retail price competition between NTS SPs using 0845 and 0870 numbers, creating more downward pressure on prices.
<ul style="list-style-type: none"> <li>tariff transparency</li> </ul>	Would reduce the risk of misleading advertising of 0845/0870 calls at local/national rates, by breaking the link with local/national geographic prices. But would lead to a proliferation of different prices for 0845/0870 calls, and would need to be accompanied by initiatives to raise consumer awareness of these prices.
<ul style="list-style-type: none"> <li>promoting service innovation and availability</li> </ul>	A significant improvement on Option 1 as a result of greater certainty over 0845/0870 SP revenue shares and greater commercial flexibility of competitive pricing on 0845/0870.
<ul style="list-style-type: none"> <li>sustaining narrowband metered internet access model</li> </ul>	An improvement on Option 1, as it would provide revenue certainty for ISPs using 0845 numbers without the need to migrate to a different number range.
<ul style="list-style-type: none"> <li>Promoting innovative billing</li> </ul>	As for Option 1.
<ul style="list-style-type: none"> <li>controlling adult content and other higher risk services on 087 numbers</li> </ul>	As in Option 1.
<p><u>Promoting competition</u></p> <ul style="list-style-type: none"> <li>Providing TCP/SP revenue certainty</li> </ul>	Would provide TCP/SP revenue certainty by giving TCPs the power to set retail prices for 0845/0870 calls made by BT customers.

Objective/criterion	Comment
<ul style="list-style-type: none"> <li>• Providing NTS SP pricing flexibility</li> </ul>	<p>Would extend SP pricing flexibility to 0845/0870 calls, provided that OCP billing and interconnect systems are upgraded to support more granular tariffing. Ofcom notes that if NTS SPs port NTS numbers away from the TCP that holds the NTS number block (of which the number being ported is part), the retail price for the block will still be the retail price chosen by the donor TCP, absent tariffing at the individual number level. This reduces the pricing flexibility for NTS SPs in the event of porting their numbers away from the donor TCP.</p>
<ul style="list-style-type: none"> <li>• minimising NTS SP entry barriers</li> </ul>	As for Option 1.
<p><u>Promoting access</u></p> <ul style="list-style-type: none"> <li>• facilitating non-SMP negotiations</li> </ul>	As for Option 1.
<p><u>Ofcom regulatory principles</u></p> <ul style="list-style-type: none"> <li>• reduce regulatory intervention/ minimise regulatory dependence</li> </ul>	The NTS industry would continue to be underpinned by the BT NTS Call Origination Condition, and ICSTIS regulation could be extended into the 087/084 ranges, but there should be fewer disputes requiring resolution by Ofcom.
<p><b>Transitional objectives</b></p> <p><u>Minimise consumer disruption</u></p> <ul style="list-style-type: none"> <li>• minimising short-term price increases</li> </ul>	The risk of higher prices, especially for off-peak 0845 and 0870 calls would need to be reduced through effective measures to raise consumer awareness of 084 and 087 call prices.
<ul style="list-style-type: none"> <li>• minimising short-term price confusion</li> </ul>	The proliferation of different retail prices for 0845/0870 calls could cause customer confusion, and would need to be tackled through effective measures to raise consumer awareness of 084/087 call prices.
<ul style="list-style-type: none"> <li>• Minimising impact on viability of PAYG internet</li> </ul>	Would give ISPs greater certainty and control over 0845/0870 revenue shares.
<p><u>Minimise expenditure on billing and interconnect system</u></p>	Investment would be required to upgrade BT's billing and interconnect systems to support increased tariffing granularity (at least to 10,000 number block level). Other CPs would also need to upgrade their systems if they wished to implement increased tariffing granularity.
<p><u>Minimise costs of number migration</u></p>	Would reduce the incentive to migrate from 0845/0870 to 0844/0871 numbers. On the other hand, NTS SPs using 0845/0870 numbers may need to change their numbers in order to secure the desired retail price point for their services, for calls made by BT customers. The extent to which this is required would depend on the progress made by OCPs in upgrading their billing and interconnect systems and the price points chosen by TCPs.
<p><u>Revenue impact</u></p> <ul style="list-style-type: none"> <li>• TCPs</li> </ul>	Unlikely to differ significantly from Option 1 – termination payments would go down on some 0845/0870 numbers and up on others, depending on what happens to the retail price.
<ul style="list-style-type: none"> <li>• OCPs</li> </ul>	Unlikely to differ significantly from Option 1.
<ul style="list-style-type: none"> <li>• NTS SPs</li> </ul>	Competitive pressures could reduce the revenue shares available to some NTS SPs. For other NTS SPs, higher retail prices could lead to a higher revenue share.

Objective/criterion	Comment
<u>Ease of communication</u>	Relatively straightforward to communicate, as it would involve extending a well-established pricing and interconnect model to 0845/0870. Important to ensure that retail price changes were explained to consumers.

A11.13 The extent to which this option addresses the issues identified in Section 3 is considered below.

#### **Tenuous link between 0845/0870 and geographic prices**

A11.14 Option 2 addresses this issue by removing the link between 0845/0870 numbers and geographic call prices. With this option, retail prices for calling 0845/0870 numbers on the BT network would be selected by the TCPs.

#### **Limited consumer price awareness**

A11.15 Option 2 would give rise to a range of different retail prices for calls to 0845 numbers (in accordance with the proposed price ceiling of up to and including 4p per minute or per call for BT customers) and for calls to 0870 numbers (in accordance with the proposed price ceiling of up to and including 8p per minute or per call for BT customers). This proliferation of tariffs could be confusing for consumers and could potentially make the problem of low consumer awareness significantly worse than at present. It would therefore be especially important for this option to be accompanied by some of the additional consumer protection measures discussed in Section 6, with the aim of raising consumer awareness of 084/087 prices.

A11.16 Most obviously, the ASA/CAP initiative and the proposed OCP CoP could contribute to an improvement in awareness. The case for more radical measures, such as pre-recorded announcements, splash boxes and the extension of ICSTIS regulation to 087 and/or 084 calls would also be relatively strong under this option.

#### **Replacement of geographic calls with more expensive NTS calls**

A11.17 The pricing and interconnect model envisaged under Option 2 is designed to support revenue sharing, and to promote service availability and retail price competition between NTS SPs; it is not designed to restrict the use of NTS numbers. The replacement of geographic calls with more expensive NTS calls would therefore have to be addressed through other means. As in Option 1, the COI 'better practice guidance' for government contact centres and the proposed TCP CoP would both help to raise awareness of the issue amongst organisations which use NTS numbers, and should go some way towards discouraging inappropriate use. In addition, the designation of price ceilings for 0845 and 0870 calls would help to limit the extent to which switching from a geographic number could lead to price increases for consumers. More radical measures, such as pre-recorded call announcements, splash boxes and the extension of ICSTIS regulation to 084/087 numbers could also have a role in alerting consumers to the price of 084/087 calls, and discouraging inappropriate replacement of geographic calls with NTS calls.

### **Call centre waiting times**

A11.18 As in Option 1, this issue could be addressed through additional measures aimed at raising consumer awareness, and through the COI 'better practice guidance' for government contact centres and the proposed TCP CoP.

### **Misleading advertising**

A11.19 Misleading advertising may be less of an issue under Option 2 than under the status quo, as the link between 0845/0870 and geographical call prices would be broken. Ofcom would wish to work with the ASA/CAP in developing guidance on the new pricing regime for 0845/0870 calls. If ICSTIS regulation were to be extended to 084/087 numbers, this could also provide a vehicle for ensuring the accuracy of any pricing information included in promotional material for 084/087 services.

### **Controlling adult content and other higher risk services on 087 numbers**

A11.20 This issue could be tackled by bringing all adult content and other higher risk services within the ambit of ICSTIS regulation, regardless of the price at which they are provided.

### **TCP/SP revenue uncertainty on 0845/0870 calls**

A11.21 This should no longer be a significant issue, as TCPs/SPs would have control over the retail prices charged for 0845/0870 calls made by BT customers. Some residual uncertainty would remain regarding BT's regulated retention, i.e. the Wholesale Charge Control and the Retail Uplift, which could change over time within the constraints imposed by regulation. Changes in these charges would affect the amounts received by TCPs for the termination of calls.

### **OCPs' lack of control over termination payments**

A11.22 The situation facing the non-SMP OCPs would remain substantially unchanged under Option 2. As noted in Section 3, Ofcom believes that the issue could best be addressed through commercial negotiations between non-SMP OCPs and TCPs.

### **BT's NCCN 500 charges**

A11.23 The issues raised by BT's NCCN 500 charges are considered in the NTS Call Termination Market Review which has been carried out in parallel with this policy review.

### **Option 3: No regulated revenue share on 0845/0870**

A11.24 Ofcom's comments on Option 3, in terms of each of the evaluation criteria described in Annex 10, are set out in Figure 52.

**Figure 52: Detailed comments on Option 3 against evaluation criteria**

Objective/criterion	Comment
<p><b>Medium/long-term objectives</b></p> <p><u>Consumer interests</u></p> <ul style="list-style-type: none"> <li>downward retail price pressure</li> </ul>	<p>Removal of regulatory underpinning for revenue sharing on 0845/0870 could lead to lower prices for access to non-ECS NTS SPs. Although NTS SPs could migrate to the 09 range and raise their prices it is likely that the 'high price' association of the 09 range may act as a deterrent for many NTS SPs. Greater price flexibility for ECS providers likely to promote price competition.</p>
<ul style="list-style-type: none"> <li>tariff transparency</li> </ul>	<p>0845/0870 calls may now be charged at genuine geographic rates. Still a case for measures aimed at raising consumer awareness of 08 prices.</p>
<ul style="list-style-type: none"> <li>promoting service innovation and availability</li> </ul>	<p>Could reduce the availability of non-ECS services currently (or prospectively) using 0845/0870.</p>
<ul style="list-style-type: none"> <li>sustaining narrowband metered internet access model</li> </ul>	<p>ISP migration required from 0845 numbers, to maintain revenue share and provide future revenue certainty.</p>
<ul style="list-style-type: none"> <li>promoting innovative billing</li> </ul>	<p>Could encourage some non-ECS NTS SPs to adopt alternative micro payment mechanisms.</p>
<ul style="list-style-type: none"> <li>controlling adult content and other higher risk services on 087 numbers</li> </ul>	<p>Would disappear on 0870. Adult content and other higher risk services on 0871 dealt with by extending scope of ICSTIS regulation.</p>
<p><u>Promoting competition</u></p> <ul style="list-style-type: none"> <li>Providing TCP/SP revenue certainty</li> </ul>	<p>Revenue certainty provided for 08 ECS NTS SPs</p>
<ul style="list-style-type: none"> <li>Providing NTS SP pricing flexibility</li> </ul>	<p>Improved price flexibility for ECS NTS SPs, and for non-ECS NTS SPs who move to 09.</p>
<ul style="list-style-type: none"> <li>minimising NTS SP entry barriers</li> </ul>	<p>Non-ECS NTS SPs wishing to secure a revenue share may have to pay more for the billing function than at present, or move to the 09 range, which has negative connotations for some consumers. There may therefore be a small increase in entry barriers for some NTS SPs.</p>
<p><u>Promoting access</u></p> <ul style="list-style-type: none"> <li>facilitating non-SMP negotiations</li> </ul>	<p>Would remove the disincentive for direct interconnection for 0845/0870 calls if OCPs faced with paying any transit charges for these calls (i.e. OCPs would wish to route calls in most efficient manner). Likely to lead to improved margins for OCPs on those calls.</p>
<p><u>Ofcom regulatory principles</u></p> <ul style="list-style-type: none"> <li>reduce regulatory intervention/ minimise regulatory dependence</li> </ul>	<p>Reduces regulatory dependence by removing regulatory underpinning for revenue sharing on 0845/0870 but would require more regulatory intervention than Options 4 and 5 since it requires policing of boundary between ECS and non-ECS NTS SPs.</p>
<p><b>Transitional objectives</b></p> <p><u>Minimise consumer disruption</u></p>	

Objective/criterion	Comment
<ul style="list-style-type: none"> <li>• minimising short-term price increases</li> </ul>	Could lead to higher prices for some services, if NTS SPs migrate from 0845/0870 to the 09 range, but overall prices more likely to fall.
<ul style="list-style-type: none"> <li>• minimising short-term price confusion</li> </ul>	Confusion over 0845/0870 prices likely to be reduced through closer alignment with geographic call charges. Variety of prices for calls to ECS services previously using 0845/0870 – strong case for measures to raise consumer awareness.
<ul style="list-style-type: none"> <li>• Minimising impact on viability of PAYG internet</li> </ul>	Some costs of number migration, otherwise no significant effect.
<u>Minimise expenditure on billing and interconnect systems</u>	No changes required to billing and interconnect systems.
<u>Minimise cost of number migration</u>	Would lead to migration of ECS NTS SPs (e.g. from 0845/0870 to 0844/0871) and some non-ECS NTS SPs (e.g. from 0845/0870 to 09)
<u>Revenue impact</u>	
<ul style="list-style-type: none"> <li>• TCPs</li> </ul>	Potential reduction in revenues for termination of non-ECS services currently using 08 numbers.
<ul style="list-style-type: none"> <li>• OCPs</li> </ul>	Potential improvement in OCP margins likely on calls to services which remain on 0845/0870.
<ul style="list-style-type: none"> <li>• NTS SPs</li> </ul>	Non-ECS NTS SPs currently on 0845/0870 would lose revenue share, unless they migrate to 09, negotiate commercial billing arrangements with OCPs, or establish an alternative micro payment mechanism.
<u>Ease of communication</u>	Distinction between ECS and non-ECS NTS SPs would need to be explained, and could be a source of confusion.

A11.25 In terms of how well Option 3 deals with the issues, which have arisen under current policies, Ofcom's comments are as follows.

### **Tenuous link between 0845/0870 and geographic prices**

A11.26 Under this option, the regulated link between 0845/0870 prices and geographic call prices would be broken.

### **Limited consumer price awareness**

A11.27 In Option 3, the case for raising consumer awareness of prices for NTS number ranges other than 0845/0870 would be the same as in Option 1, and the issue could be tackled in the same way. For 0845/0870 calls, the onus would be on the OCPs, to take steps to ensure that their customers were aware of the new retail price arrangements for these services.

A11.28 If revenue sharing ceased on these number ranges, we understand from BT that it would consider bringing the prices of these calls into line with the geographic call prices actually paid by its customers. There would no longer be any reason, for example, for BT to limit the range of discounts applicable to 0845/0870 calls. On the other hand, if commercial agreements were reached for the continuation of revenue sharing, a new and distinct set of charges could be introduced for 0845/0870 calls. In either case, the OCP



CoP discussed in Section 6 could help to ensure that consumers were properly informed of developments.

### **Replacement of geographic calls with more expensive NTS calls**

A11.29 Option 3 is designed to discourage the replacement of geographic calls with more expensive NTS calls, by removing 0845/0870 calls from the scope of the BT NTS Call Origination Condition, and possibly preventing non-ECS NTS SPs from moving to 0844/0871 numbers. As discussed above, however, it is possible that it would fail to meet this objective, either because NTS SPs move to the 09 range, or because their TCPs reach commercial agreements with OCPs, under which the latter continue to provide billing services on a basis that provides scope for the TCPs to share revenue with their NTS SPs.

A11.30 To the extent that revenue sharing continued for non-ECS services currently using 0845/0870 numbers, the replacement issue could be addressed through the additional consumer protection measures discussed in Section 6.

### **Call centre waiting times**

A11.31 As is the case with other non-ECS services, Option 3 would discourage revenue sharing with call centres on NTS calls. It is perhaps unlikely that many call centre services would move to 09 numbers, given consumer awareness of the higher price of most 09 calls. However, if commercial agreements were reached, whereby revenue sharing could continue on 0845/0870 numbers, the impact on call centres could be limited. In that event, this issue could be addressed through additional measures aimed at raising consumer awareness, and through the COI 'better practice guidance' for government contact centres and the proposed TCP CoP.

### **Misleading advertising**

A11.32 Misleading advertising may be less of an issue under Option 3 than under the status quo, as the link between 0845/0870 and geographical call prices would be broken. Ofcom would wish to work with the ASA/CAP in developing guidance on the new pricing regime for 0845/0870 calls. If ICSTIS regulation were to be extended to 084/087 numbers, this could also provide a vehicle for ensuring the accuracy of any pricing information included in promotional material for 084/087 services.

### **Controlling adult content and other higher risk services on 087 numbers**

A11.33 To the extent that revenue sharing ceased on 0870 numbers, adult content and other higher risk services could be expected to move off this number range and, as they are unlikely to satisfy the definition of an ECS services, they may not be permitted to move to 0871. The most likely response would be a move to the 09 range, although under the current regime this would not necessarily bring them within the scope of ICSTIS regulation, if they priced below the 10p per minute CPRS cut-off. As with the other options, the most effective way of dealing with the problem would be to extend ICSTIS

regulation to cover all adult content and other higher risk services, regardless of the prices at which they are provided.

**TCP/SP revenue uncertainty on 0845/0870 calls**

A11.34 This problem would be removed because the revenue share on 0845/0870 calls would either disappear or be the subject of commercial agreement between the OCP and TCP.

**OCPs lack of control over termination payments**

A11.35 This issue is described in paragraphs 3.29 to 3.48. Briefly, non-BT OCPs are faced with making the same terminating payments to TCPs for NTS calls that transit the BT network as BT makes to TCPs for the same class of NTS calls that originate on the BT network. This issue could become less significant under Option 3, because the margins earned by OCPs on 0845/0870 calls would be likely to increase. This is because BT would no longer be constrained to make only cost-based charges for retailing these calls, and all OCPs would be likely to benefit from the anticipated increase in BT’s origination charges.

A11.36 The current disincentive for TCPs to interconnect directly with non-SMP OCPs, for the purpose of terminating 0845/0870 calls, could also be eased under Option 3, because there would be more flexibility as to terminating payments as these would no longer be the output of regulation at the origination level.

**BT’s NCCN 500 charges**

A11.37 The issues raised by BT’s NCCN 500 charges are considered in the NTS Call Termination Market Review which has been carried out in parallel with this policy review.

**Option 4: No regulated revenue share on 084/087**

A11.38 Ofcom’s detailed comments on Option 4, in terms of the evaluation criteria detailed in Annex 10, are set out in Figure 53.

**Figure 53: Detailed comments on Option 4 against evaluation criteria**

Objective/criterion	Comment
<p><b>Medium/long-term objectives</b>  <u>Consumer interests</u></p> <ul style="list-style-type: none"> <li>downward retail price pressure</li> </ul>	<p>Breaking the link between 0845/0870 and geographic call prices would encourage greater retail price competition between NTS SPs. Higher level of consumer awareness of 09 prices could also increase downward price pressure, where services migrate to 09.</p>

Objective/criterion	Comment
<ul style="list-style-type: none"> <li>tariff transparency</li> </ul>	Adoption of alternative micro payment mechanisms could provide greater transparency of retail prices for services currently provided on 08 numbers. 0845/0870 calls could now be charged at genuine geographic rates, unless TCPs/NTS SPs negotiate commercial agreements with OCPs to maintain revenue sharing on those number ranges. Still a case for measures aimed at raising consumer awareness of 08 prices.
<ul style="list-style-type: none"> <li>promoting service innovation and availability</li> </ul>	Could lead to reduced availability of services currently (or prospectively) on 084/087 numbers.
<ul style="list-style-type: none"> <li>sustaining narrowband metered internet access model</li> </ul>	Possible reduction in availability and/or increase in prices for PAYG internet could result in lower internet penetration.
<ul style="list-style-type: none"> <li>controlling adult content and other higher risk services on 087 numbers</li> </ul>	Adult content and other higher risk services would largely disappear on the 08 range.
<u>Promoting competition</u> <ul style="list-style-type: none"> <li>Providing TCP/SP revenue certainty</li> </ul>	Would remove the current uncertainty.
<ul style="list-style-type: none"> <li>Providing NTS SP pricing flexibility</li> </ul>	Removing 0845/0870 link to geographic prices would lead to greater price flexibility
<ul style="list-style-type: none"> <li>minimising NTS SP entry barriers</li> </ul>	NTS SPs wishing to secure a revenue share may have to pay more for the billing function than at present, or move to the 09 range. Could discourage some market entry.
<u>Promoting access</u> <ul style="list-style-type: none"> <li>facilitating non-SMP negotiations</li> </ul>	Would remove the disincentive for direct interconnection for 084/087 calls. Likely to lead to improved margins for OCPs on those calls.
<u>Ofcom regulatory principles</u> <ul style="list-style-type: none"> <li>reduce regulatory intervention/ minimise regulatory dependence</li> </ul>	Reduces regulatory dependence by removing regulatory underpinning for revenue sharing on 084/087. Lighter touch than Options 1, 3 or 4.
<b>Transitional objectives</b> <u>Minimise consumer disruption</u> <ul style="list-style-type: none"> <li>minimising short-term price increases</li> </ul>	Prices could rise where 084/087 NTS SPs/TCPs respond by moving to 09, adopting alternative micro payment mechanisms, or negotiating a commercial billing arrangement with BT.
<ul style="list-style-type: none"> <li>minimising short-term price confusion</li> </ul>	Likely to lead to a variety of different prices for accessing services previously on 084/087. Would need to be addressed through measures to raise consumer awareness.
<ul style="list-style-type: none"> <li>Minimising impact on viability of PAYG internet</li> </ul>	Could make PAYG billing arrangements more expensive for ISPs, and reduce the competitiveness of the service e.g. relative to broadband.
<u>Minimise expenditure on billing and interconnect systems</u>	No changes required to billing and interconnect systems.

Objective/criterion	Comment
<u>Minimise costs of number migration</u>	Likely to lead to some migration from 084/087 to 09.
<u>Revenue impact</u>	
• TCPs	Potential reduction in revenues for termination of calls to NTS services currently using 08 numbers.
• OCPs	Some improvement in OCP margins likely on calls to services that remain on 084/087.
• NTS SPs	NTS SPs currently on 084/087 would lose revenue share, unless they migrate to 09, negotiate commercial billing arrangements with OCPs, or establish an alternative micro payment mechanism.
<u>Ease of communication</u>	The basic policy position is quite straightforward, but communication would be made more difficult by uncertainty over its consequences.

A11.39 The extent to which this option addresses the issues identified in Section 3 is considered below.

### **Tenuous link between 0845/0870 and geographic prices**

A11.40 The link between 0845/0870 and local/national call prices would be removed under this option. If BT brought its 0845/0870 retail prices into line with the prices actually paid for geographic calls, including identical treatment in terms of discount packages, there would no longer be an issue. On the other hand, if 084/087 calls were re-badged with a new set of retail prices the OCPs could be expected to take the lead in informing consumers of the new arrangements. An OCP CoP could play a part in this process.

### **Limited consumer price awareness**

A11.41 For 084/087 calls, the onus would be on the OCPs, to take steps to ensure that their customers were aware of the new retail price arrangements for these services. If revenue sharing ceased on these number ranges, we understand from BT that it would consider bringing the prices of these calls into line with the geographic call prices actually paid by its customers – there would no longer be any reason, for example, to limit the range of discounts applicable to 0845/0870 calls. On the other hand, if commercial agreements were reached for the continuation of revenue sharing, a new and distinct set of charges could be introduced for 084/087 calls. In either case, the OCP CoP discussed in Section 6 could help to ensure that consumers were properly informed of developments.

### **Replacement of geographic calls with more expensive NTS calls**

A11.42 Option 4 is designed to discourage the replacement of geographic calls with more expensive NTS calls, by removing 084/087 calls from the scope of the BT NTS Call Origination Condition. However, it is possible that it would fail to achieve this objective, either because NTS SPs move to the 09 range, or because their TCPs reach commercial agreements with OCPs, under which the latter continue to provide billing services on a revenue sharing basis.

A11.43 To the extent that revenue sharing continued the replacement issue could be addressed through the additional consumer protection measures discussed in Section 6.

### **Call centre waiting times**

A11.44 Option 4 would discourage revenue sharing with call centres on NTS calls. It is perhaps unlikely that many call centre services would move to 09 numbers, given consumer awareness of the higher price of most 09 calls. However, if commercial agreements were reached, whereby revenue sharing could continue on 0845/0870 numbers, the impact on call centres could be limited. In that event, this issue could be addressed through additional consumer protection measures aimed at raising consumer awareness, and through the COI 'better practice guidance' for government contact centres and the proposed TCP CoP.

### **Misleading advertising**

A11.45 Misleading advertising may be less of an issue under Option 4 than under the status quo, as the link between 0845/0870 and geographical call prices would be broken. Ofcom would wish to work with the ASA/CAP in developing guidance on the new pricing regime for 084/087 calls. If ICSTIS regulation were to be extended to 084/087 numbers, this could also provide a vehicle for ensuring the accuracy of any pricing information included in promotional material for 084/087 services.

### **Controlling adult content and other higher risk services on 087 numbers**

A11.46 To the extent that revenue sharing ceased on 087 numbers, adult content and other higher risk services could be expected to move off this number range. The most likely response would be a move to the 09 range, although under the current regime this would not necessarily bring them within the scope of ICSTIS regulation, if they priced below the 10p per minute CPRS cut-off. As with the other options, the most effective way of dealing with the problem would be to extend ICSTIS regulation to cover all adult content and other higher risk services, regardless of the price at which they are provided.

### **TCP/SP revenue uncertainty on 0845/0870 calls**

A11.47 Revenue uncertainty would no longer be an issue because the revenue share on 084/087 calls would either disappear or be the subject of commercial agreements between OCPs and TCPs.

### **OCPs' lack of control over termination payments**

A11.48 This issue is likely to be less significant under Option 4, because the margins earned by OCPs on 084/087 calls would be likely to increase. This is because BT would no longer be constrained to receive only regulated payments for billing these calls, and all OCPs would be likely to benefit from the resulting increase in BT's origination charges.

A11.49 The current disincentive for TCPs to interconnect directly with non-SMP OCPs, for the purpose of terminating 084/087 calls, could also be eased under this option, because the revenue split between OCPs and TCPs would no longer be driven by regulation, but would be determined through commercial negotiation between the parties.

### BT's NCCN 500 charges

A11.50 The issues raised by BT's NCCN 500 charges are considered in the NTS Call Termination Market Review which has been carried out in parallel with this policy review.

### Option 5: No regulated revenue share on any NTS number ranges

A11.51 Ofcom's comments on Option 5, in terms of the detailed evaluation criteria described in Annex 10, are set out in Figure 54.

**Figure 54: Detailed comments on Option 5 against evaluation criteria**

Objective/criterion	Comment
<p><b>Medium/long-term objectives</b></p> <p><u>Promoting consumer interests</u></p> <ul style="list-style-type: none"> <li>downward retail price pressure</li> </ul>	<p>Breaking the link between 0845/0870 and geographic call prices would encourage greater retail price competition between NTS SPs currently using those number ranges.</p>
<ul style="list-style-type: none"> <li>tariff transparency</li> </ul>	<p>Adoption of alternative micro payment mechanisms could provide greater transparency of retail prices for NTS services. To the extent that retail prices for NTS calls became aligned with geographic rates, transparency would improve. To the extent that TCPs/NTS SPs negotiate commercial billing arrangements with OCPs, the need for effective measures to raise consumer awareness is likely to increase.</p>
<ul style="list-style-type: none"> <li>promoting service innovation and availability</li> </ul>	<p>Could lead to reduced availability of services currently on 084/087/09 numbers.</p>
<ul style="list-style-type: none"> <li>sustaining narrowband metered internet access model</li> </ul>	<p>Possible reduction in availability and/or increase in prices for PAYG internet could result in lower internet penetration.</p>
<ul style="list-style-type: none"> <li>controlling adult content and other higher risk services on 087 numbers</li> </ul>	<p>A possible outcome under this option is that NTS SPs would provide adult content and other higher risk services under commercially negotiated billing arrangements between TCPs and OCPs. These services could in principle be provided on <i>any</i> NTS or geographic number range. Alternatively, other micro payment mechanisms could be used to collect revenues. In either case, the scope of ICSTIS regulation may need to be revisited.</p>
<p><u>Promoting competition</u></p> <ul style="list-style-type: none"> <li>Providing TCP/SP revenue certainty</li> </ul>	<p>Would remove the current uncertainty.</p>

Objective/criterion	Comment
<ul style="list-style-type: none"> <li>• Providing NTS SP pricing flexibility</li> </ul>	The degree of price flexibility would depend on the payment mechanism used by the NTS SP/TCP. Most of the available options are likely to lead to a greater degree of flexibility than at present.
<ul style="list-style-type: none"> <li>• minimising NTS SP entry barriers</li> </ul>	NTS SPs wishing to secure a revenue share are likely to have to pay more for the billing function than at present. Could discourage market entry.
<u>Promoting access</u> <ul style="list-style-type: none"> <li>• facilitating non-SMP negotiations</li> </ul>	Would remove the disincentive for direct interconnection in relation to NTS calls. Likely to lead to improved margins for OCPs on those calls.
<u>Ofcom regulatory principles</u> <ul style="list-style-type: none"> <li>• reduce regulatory intervention/ minimise regulatory dependence</li> </ul>	Reduces regulatory dependence by removing regulatory underpinning for revenue sharing on NTS calls. Lighter touch than any of the other options.
<b>Transitional objectives</b> <u>Minimise consumer disruption</u> <ul style="list-style-type: none"> <li>• minimising short-term price increases</li> </ul>	Prices could rise where NTS SPs adopt alternative micro payment mechanisms, or negotiate commercial billing arrangements with BT.
<ul style="list-style-type: none"> <li>• minimising short-term price confusion</li> </ul>	Likely to lead to a variety of different prices for accessing services previously on 0845/0870. Beyond that, impact would depend on how NTS SPs/TCPs react to the loss of regulated revenue sharing. The adoption of alternative micro payment mechanisms could lead to improved price transparency.
<ul style="list-style-type: none"> <li>• Minimising impact on viability of PAYG internet</li> </ul>	Could make PAYG billing arrangements more expensive for ISPs, and reduce the competitiveness of the service e.g. relative to broadband.
<u>Minimise expenditure on billing and interconnect systems</u>	No changes required to billing and interconnect systems.
<u>Minimise costs of number migration</u>	No real concerns.
<u>Revenue impact</u> <ul style="list-style-type: none"> <li>• TCPs</li> </ul>	Potential reduction in revenues for termination of calls to NTS services. TCPs could respond by seeking commercial arrangements with OCPs, through which revenue sharing would continue.
<ul style="list-style-type: none"> <li>• OCPs</li> </ul>	Some improvement in OCP margins likely on calls to NTS services.
<ul style="list-style-type: none"> <li>• NTS SPs</li> </ul>	NTS SPs would lose revenue share, unless they negotiate commercial billing arrangements with OCPs, or establish alternative micro payment mechanisms.
<u>Ease of communication</u>	The basic policy position is quite straightforward, but communication would be made more difficult by uncertainty over its consequences e.g. in terms of the likely impact on service availability.

A11.52 The extent to which this option addresses the issues identified in Section 3 is considered below.

### **Tenuous link between 0845/0870 and geographic prices**

A11.53 The link between 0845/0870 and local/national call prices would be removed under this option. If BT brought its 0845/0870 retail prices into line with the prices actually paid for geographic calls including identical treatment in terms of discount packages, there would no longer be an issue. On the other hand, if 084/087 calls were re-badged with a new set of retail prices the OCPs could be expected to take the lead in informing consumers of the new arrangements. An OCP CoP could play a part in this process.

### **Limited consumer price awareness**

A11.54 The onus would be on the OCPs, to take steps to ensure that their customers were aware of the new retail price arrangements for 08 and 09 services.

A11.55 If revenue sharing ceased on the 084/087 number ranges, we understand from BT that it would consider bringing the prices of these calls into line with the geographic call prices actually paid by its customers – there would no longer be any reason, for example, to limit the range of discounts applicable to 0845/0870 calls.

A11.56 On the other hand, if commercial agreements were reached for the continuation of revenue sharing, a new and distinct set of charges could be introduced for 0845/0870 calls. For 0844/0871 and 09 calls it is likely that NTS SPs/TCPs would continue to set the retail price on the BT network, although BT's charges for originating/retailing these calls could increase.

A11.57 Whatever the outcome, an OCP CoP could help to ensure that consumers were properly informed of developments, and some of the other additional consumer protection measures discussed in Section 6 could have a role to play.

### **Replacement of geographic calls with more expensive NTS calls**

A11.58 Option 5 is designed to discourage the replacement of geographic calls with more expensive NTS calls, by removing the BT NTS Call Origination Condition in its entirety. However, it is possible that it would fail to achieve this objective, because their TCPs could reach commercial agreements with OCPs, under which the latter continue to provide billing services on a revenue sharing basis.

A11.59 If revenue sharing continued, the replacement issue could be addressed through the additional consumer protection measures discussed in Section 6.

### **Call centre waiting times**

A11.60 Option 5 would discourage revenue sharing with call centres on NTS calls. However, if commercial agreements were reached, whereby revenue sharing could continue on 0845/0870 numbers, the impact on call centres could be limited. In that event, this issue could be addressed through additional measures aimed at raising consumer awareness, and through the



COI 'better practice guidance' for government contact centres and the proposed TCP CoP.

### **Misleading advertising**

A11.61 Misleading advertising may be less of an issue under Option 5 than under the status quo, as the link between 0845/0870 and geographical call prices would be broken. Ofcom would wish to work with the ASA/CAP in developing guidance on the new pricing regime for NTS calls. Current ICSTIS regulations would also need to be reviewed in the light of the new policy.

### **Controlling adult content and other higher risk services on 087 numbers**

A11.62 As with the other options, the most effective way of dealing with this problem would be to extend ICSTIS regulation to cover all adult content and other higher risk services, regardless of the price at which they are provided.

### **TCP/SP revenue uncertainty on 0845/0870 calls**

A11.63 Revenue uncertainty would no longer be an issue because the revenue share on 0845/0870 calls would either disappear or be the subject of commercial agreements between OCPs and TCPs.

### **OCPs' operators lack of control over termination payments**

A11.64 This issue is likely to be much less significant under Option 5, because the margins earned by OCPs on NTS calls would be likely to increase. This is because BT would no longer be constrained to receive only regulated payments for billing these calls, and all OCPs would be likely to benefit from the consequent increase in BT's origination charges.

A11.65 The current disincentive for TCPs to interconnect directly with non-SMP OCPs, for the purpose of terminating NTS calls, could also be eased under this option, because the revenue split between OCPs and TCPs would no longer be driven by regulation, but would be determined through commercial negotiation between the parties.

### **BT's NCCN 500 charges**

A11.66 The issues raised by BT's NCCN 500 charges are considered in the NTS Call Termination Market Review which has been carried out in parallel with this policy review.

## Annex 12

# Links to other Ofcom work on NTS

## NTS Call Termination Market Review

A12.1 In parallel with the present consultation document, Ofcom is publishing a consultation document on an NTS call termination market review. The market review considers the possible implications for the NTS call termination market of some of the pricing and interconnect policy options examined in Sections 4 and 5 above, and the issues raised by BT's NCCN 500 NTS call termination charges.

## Ofcom's Tactical Work on NTS

A12.2 Ofcom is currently undertaking two pieces of work to refine the existing NTS regime:

- a consultation on the NTS retail uplift and PRS surcharge published on 8 July 2004 ("*Number Translation Services Retail Uplift charge control and Premium Rate Services bad debt surcharge*")  
[http://www.ofcom.org.uk/consultations/current/nts\\_retail\\_uplift/](http://www.ofcom.org.uk/consultations/current/nts_retail_uplift/)); and
- a draft direction published in July 2004 obliging BT to introduce a new mechanism for calculating the network costs of NTS calls ("*INCA/CLI for NTS Interconnection charging*")  
[http://www.ofcom.org.uk/consultations/past/inca\\_cli\\_nts/?a=87101](http://www.ofcom.org.uk/consultations/past/inca_cli_nts/?a=87101))

A12.3 At the time of writing, work was still in progress in both of these areas. Further details of the background to and impact of these pieces of work can be found in Annex 4.

A12.4 Ofcom considers that it is important that work on the evolution of the existing NTS regime continues as usual despite the fact that Ofcom is also consulting on entirely new policy options for the future. This is because it is likely to be some time before any changes to the NTS regime that Ofcom chooses as a result of the consultation process launched by this document can actually be put in place. In addition, depending on Ofcom's final decision in relation to the future structure of the NTS regime, it is possible that elements of the existing NTS regime will still be required. It is therefore important that work on refining the existing NTS regime continues in parallel with Ofcom's strategic work on the future of the NTS regime as a whole.

## Ofcom's Telecommunications Review

A12.5 Ofcom's Telecoms Review is assessing the options for enhancing value and choice in the UK telecommunications sector. It will have a particular focus on assessing the prospects for maintaining and developing effective competition in UK telecommunications markets, while having regard for investment and innovation.

- A12.6 The NTS Framework Re-examination shares similar, narrower, objectives but at a more operational level. It has been initiated in response to various issues brought to Ofcom's attention by consumers and industry stakeholders. The proposed options for changing the NTS regime are designed to address these issues within the context of the existing technological and regulatory framework for telecommunications. The Telecoms Review is looking further ahead to the telecoms environment using IP based or Next Generation Networks ("NGNs"). With the evolution of NGNs it is probable that voice and data technologies will converge possibly prompting a review of the need for voice-specific regulation. Regulation such as BT's NTS Call Origination Condition, which has arisen in the context of existing markets and technologies, will need to be reconsidered as the environment changes. What is not yet clear is the extent to which the low cost micro payment facility provided by NTS today can be replaced by other micro payment methods in the future or whether some sort of obligation to provide micro payment services via telecoms call bills would continue to be appropriate.
- A12.7 Other areas of possible overlap between the Telecoms Review and the NTS Framework Re-examination include consideration of consumer information and retail tariff transparency issues. Here again the Telecoms Review will take a much broader and longer term view on how price confusion can be avoided, bearing in mind that many consumers may have little idea about what calls actually cost or how to find out. The NTS work complements the aims of the Telecoms Review but will also seek to address immediate problems that relate more specifically to NTS. Examples include the potential for misleading or highly opaque pricing messages for NTS calls to be disseminated by both NTS service providers and OCPs.
- A12.8 The Telecoms Review Phase 2 consultation document is due to be published shortly after this document and as such both teams have been in close liaison over content to ensure a consistent approach. Both projects are also expected to publish their final conclusions in the first quarter of 2005. As such the outcome of the NTS Framework Re-examination has to take account of but is not driven by the Telecoms Review.

## **PRS Review**

- A12.9 On 3 August 2004, Ofcom announced that, at the request of the Department of Trade and Industry, it was carrying out a review of the way in which PRS is regulated with a view to improving measures to protect consumers from fraudulent and unscrupulous activity. The PRS review will look, amongst other things, at ways to strengthen the powers of ICSTIS – the body responsible for regulating the content and promotion of PRS.
- A12.10 There is clearly some scope for overlap between the PRS review and Ofcom's NTS Framework Re-examination in so far as both pieces of work will be taking into account (amongst other things) the potential for consumer harm that arises because of the separation between the OCP (who bills for the call) and the NTS service provider (who provides the service/content element of the call). However, whilst 09 PRS numbers are a subset of NTS numbers, the focus of the NTS Framework Re-examination is broader than

the PRS review, in that it covers the retail pricing and interconnection arrangements that underpin revenue sharing on both 08 and 09 telephone numbers.

- A12.11 The PRS review will look in more detail at some of the practical aspects of how the content and promotion of PRS in particular are regulated. Ofcom's PRS review is being undertaken during August and September 2004, which is a shorter timescale than for Ofcom's work on the NTS Framework Re-examination. If any recommendations are made during the PRS review these will be based on the current detailed regulatory arrangements for PRS, taking as given the existing retail pricing and interconnection model for NTS. Therefore the PRS review will not be taken in any way to pre-empt or pre-judge the outcome of Ofcom's re-examination of the NTS framework.

### **PRS – Review of Numbering Arrangements**

- A12.12 On 26 August 2004 Ofcom published its "*Review of numbering arrangements for Premium Rate Services*" <http://www.ofcom.org.uk/consultations/past/prs/statement/>. Ofcom's proposals in that document relate to the designation of the 09 ranges in the Plan. Ofcom is proposing to modify the designation of the relevant 09 ranges so it is aligned with the terminology already used in the Plan to designate the 0844, 0845, 0870 and 0871 number ranges i.e. align the description, in the Plan, of both NTS and PRS calls as Special Services.
- A12.13 These proposals have no impact on the outcome of Ofcom's re-examination of the NTS framework.

### **Next generation networks**

- A12.14 Ofcom has started to examine the impact of the introduction by BT and other CPs of NGNs, in particular on interconnection arrangements and wholesale markets of the future. As described above in relation to Ofcom's Telecoms Review these may have an impact on the need for and form of future regulation (amongst other things) of NTS. They may also have an impact on the interconnection arrangements CPs have put in place in response to Oftel's and Ofcom's NTS policy decisions and to developments in the NTS market over the years. Given that it is likely to be some years before existing PSTN-based interconnection is completely replaced by NGNs, this has no immediate impact on the outcome of the Ofcom's re-examination of the NTS framework, although Ofcom has been mindful of NGN developments in its assessment of NTS policy options.

### **Network Charge Controls**

- A12.15 Ofcom has already embarked on its review of the Network Charge Controls (NCC) of BT's wholesale charges, which are currently subject to controls that end on 30 September 2005. Any proposed new controls would take effect from 1 October 2005. Since BT's NTS retention consists (amongst other things) of the basic conveyance and transit components any proposed

new controls would impact upon the interconnection costs and payments that CPs would face in future for NTS calls carried on the BT network. Under the current NTS regime, these changes would introduce additional uncertainty for TCPs until such time as the new NCC is introduced. However, this is not unique to NTS calls and will affect other CPs interconnecting with BT for the conveyance of a large number of other call types.

- A12.16 For the reasons set out in the previous paragraph, Ofcom considers that attempting to address the variability in network conveyance charges (and the consequent changes in NTS terminating payments) as a result of the NCC review is beyond the scope of this re-examination of the NTS framework. Ofcom does however note that, under Ofcom's preferred approach (Option 2), TCPs would be able to revise the retail prices for calls to their services to take account of changes to BT's network charges.
- A12.17 In the statement published on 8 July 2004 entitled "*INCA/CLI for NTS Interconnection charging*" Ofcom described how BT's costs for enhancing its INCA/CLI billing systems could be recovered from all NTS providers including BT, through a surcharge to their interconnection charges for NTS to be calculated as part of the next round of NCC. It is also possible that the NCC may need to take account of costs incurred in the implementation of any decision as a result of Ofcom's re-examination of the NTS framework in a similar fashion.

## Annex 13

# Summary of findings of technical consultancy

A13.1 This annex summarises the preliminary findings of the technical consultancy that Ofcom commissioned as part of the NTS Framework Re-examination.

### Introduction

A13.2 As discussed in earlier sections of this document, the current capability of BT's (and to a lesser extent other CPs') interconnect and billing systems constrains the flexibility of the current interconnect arrangements with regard to tariffing of NTS calls. Ofcom therefore engaged a specialist consultancy Interconnect Communications Limited (InterConnect) to examine the feasibility and cost of certain modifications that would remove some of these constraints.

A13.3 This report provides a brief summary of InterConnect's preliminary findings. Ofcom plans to publish an edited version of InterConnect's final report with any confidential information supplied by BT and other CPs removed. When available it will be published on Ofcom's web site.

### Methodology

A13.4 This study was based on a programme of interviews conducted by InterConnect with subject matter experts at BT and four other CPs. The CPs were selected by Ofcom on the basis that they were broadly representative of CPs as a whole and included:

- a fixed network CP that is a net originator of NTS calls;
- a fixed network CP that is a net terminator of NTS calls;
- a fixed network operator that is one of the larger providers of CPS (and is almost exclusively an originator of NTS calls); and
- a mobile operator.

A13.5 The main focus of the assignment was on BT's interconnect and billing systems due to BT's position as a dominant originator and transit provider and prominent terminator for NTS calls. However, InterConnect also made a qualitative assessment of the impact of the proposed changes on the other communications providers. To maintain the confidentiality of the contributions of the four CPs they have not been named or profiled in detail.

A13.6 Based on the information gathered in the interviews with BT, InterConnect prepared estimates of the costs and timescales for implementing the proposed modifications to BT's billing and interconnect systems.

A13.7 It is important to note that these are high level estimates that have been made without the benefit of detailed feasibility studies and therefore there is inevitably some uncertainty and consequently more detailed investigation might reveal additional change requirements that could alter the costs and timescales quoted below.

## Key findings

A13.8 The study investigated the feasibility, cost and timescales for two changes to the current NTS billing and interconnection arrangements:

- originator specific termination charges; and
- increased tariffing granularity.

A13.9 The key findings are described below.

### Originator specific termination charges

A13.10 The study examined the feasibility of implementing originator specific termination charges for calls that transit BT's network. This means that the payment collected by BT from the originator of the call and then passed on to the terminator would vary according to the identity of the originator for each call.

A13.11 InterConnect noted that the CLI and/or incoming trunk group are currently the only ways for BT to identify the origin of a call when calculating termination payments and that the CLI provides an incorrect indication of where the call originated when IA or CPS are used or if the originating telephone number has been ported. InterConnect concluded that this limitation currently prevents originator specific termination charges from being implemented and that it could only be overcome if all CPs implemented a signalling enhancement to their networks. This would involve the addition of an originator specific signalling code to each call as part of the signalling setup message to identify the OCP. BT and the four CPs interviewed were not able to identify an alternative approach that would obviate the need for this signalling enhancement.

A13.12 In the time available it was not possible to estimate the likely cost and timescale for implementing the necessary signalling enhancement to support originator specific termination payments.

A13.13 Ofcom notes that the requirement for signalling enhancements to identify the originating network for non-BT originated calls has been previously identified and discussed at some length by the Industry in connection with the introduction of the BT's INCA/CLI billing system. In its consultation "*Options for Interconnection Charging*"<sup>46</sup> published by Oftel on 19 December 2003, Oftel noted that:

*System developments to enable automatic identification of the CLI by the TCP at the point of handover of each call need to be planned alongside other signalling system enhancements and will not be available for some years.*

A13.14 BT and several of the CPs interviewed were concerned that originator specific termination payments would massively increase the size of their tariffing tables since it introduces a new multiple into the number of

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<sup>46</sup> A copy of this consultation is available at Ofcom's website at: [http://www.ofcom.org.uk/consultations/past/nts\\_ic\\_condoc/nts\\_charging.pdf](http://www.ofcom.org.uk/consultations/past/nts_ic_condoc/nts_charging.pdf)

permutations of tariffs. There was concern about the impact on their systems both in terms of tariff table size and processing load. There was also concern about the operational impact of maintaining so many tariffs.

A13.15 However, InterConnect did observe that two alternatives would provide a similar solution by not involving BT in any originator specific termination payments. These are:

- a hybrid direct-accounting solution, whereby the current transit arrangements are maintained and BT continues to assume a standard origination charge for all OCPs and settles on this basis. In this scenario, the originator and the terminator make a parallel separate commercial arrangement to make additional payments that taken in conjunction with the standard payments effectively establish an originator specific termination charge; or
- a transit-only solution whereby BT provides transit services but is no longer responsible for collecting payments from the OCP and passing them on to the TCP. In this scenario, the OCP and TCP would make separate commercial arrangements for these payments. Ofcom notes that BT already offers a transit-only product known as Targeted Transit.

A13.16 In evaluating the feasibility and costs of increased tariffing granularity InterConnect have assumed that BT would not implement originator specific termination charges and that if either of the alternatives described above are implemented that they would have no impact on BT (though they would have an impact on the CPs that implemented them). The costs and timescales for implementing these alternatives were not evaluated as part of this project.

### Increased tariffing granularity

A13.17 The retail prices for calls to NTS numbers for BT customers are currently set at the level of blocks of numbers of various sizes as shown in Figure 55.

**Figure 55: Tariffing granularity for NTS numbers**

Range	Tariffs set in blocks of:
0844 04xx internet only ranges	1,000 number <sup>47</sup>
0844 except internet only ranges	10,000 numbers
0845	Whole range has a single tariff point for BT customers due to the linkage with BT's standard local geographic call charges (10 million numbers)
0870	Whole range has a single tariff point for BT customers due to the linkage with BT's standard national geographic call charges (10 million numbers)
0871	100,000 numbers

<sup>47</sup> Following the 2004 NTS Statement – previously tariffed in blocks of 100,000 numbers.



09	100,000 numbers
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A13.18 The study investigated the cost and feasibility of reducing tariff block sizes from their current level to the following block sizes:

- 100,000 numbers;
- 10,000 numbers;
- 1,000 numbers; and
- individual numbers.

### Implementation costs

A13.19 Overall, InterConnect concluded that implementation of increased tariffing granularity would be fairly straightforward and that no major technical problems were identified.

A13.20 InterConnect found that the modifications to BT's systems required to implement increased tariffing granularity would be very similar regardless of the level of granularity selected or the combination of number ranges to which it was applied.

A13.21 Since the estimates are based on a high level assessment of the modifications required to BT's systems (not a detailed feasibility study) there was insufficient information to breakdown the estimates by number range and level of tariffing granularity. InterConnect also feel that to provide separate figures would be misleading given the fairly large margin for error inherent in a high level assessment such as this.

A13.22 InterConnect has therefore evaluated two implementation scenarios as shown in Figure 56. Changes to each of the systems affected have been evaluated according to whether they are likely to be simple, moderate or complex. In the 'More Likely Case' scenario InterConnect have assumed the most likely level of complexity (generally simpler) and in the Worse Case scenario, more complex changes have been assumed to be required. BT would need to undertake a complete feasibility study to provide a budget estimate for any changes required.

**Figure 56: Estimate of BT's implementation costs for increased tariffing granularity**

	BT Retail	BT Wholesale	Total
More Likely Case	£268k	£373k	£641k
Worst Case	£524k	£565k	£1178k

A13.23 The estimates shown in Figure 56 do not include the costs of any additional hardware that would be required to support increased tariffing granularity since this could not be accurately estimated without a more detailed study of the hardware supporting each of the billing systems. InterConnect believes that the additional hardware costs would most likely be small in relation to the development costs quoted in Figure 56. However, BT Wholesale were concerned that their INCA billing system might not be able to cope with the additional workload of producing aggregate reports within the required billing

cycle times after more granular tariffing was introduced. If this were the case, BT Wholesale thought that INCA would require a major code rewrite and potentially an upgraded hardware platform to improve its performance. There is considerable uncertainty as to when this performance limit would be encountered but the load factors are the tariffing granularity and the number of price points actually in use. InterConnect's Worst Case Scenario includes an allowance to re-write the INCA software but not for an upgraded hardware platform which InterConnect believes could be significant, perhaps more than £100,000.

A13.24 As previously indicated it was not possible to separately estimate the cost of increasingly tariffing granularity for individual number ranges or number block sizes. However, InterConnect's view was that it is reasonable to expect that the billing systems impact would increase with greater tariffing granularity. It was therefore InterConnect's view that the cost of implementing tariffing at the level of 10,000 number blocks would most likely be around that quoted for the Most Likely Case, and that the cost of implementing individual number tariffing would almost certainly increase the cost to that quoted as the Worst Case.

### **Ongoing costs**

A13.25 InterConnect identified two ongoing costs that would result from the introduction of increased tariffing granularity:

- additional licensing costs for BT Wholesale Billing Systems; and
- additional operational costs.

A13.26 Some of the billing systems used by BT Wholesale incur volume based licensing. InterConnect was not able to produce an estimate of the additional charges that might be incurred as result of the introduction of increased tariffing granularity without a detailed study of BT's commercial agreements with the system suppliers. However InterConnect believe that these charges are at least partly dependant on the level of tariffing granularity and the actual number of price points implemented. InterConnect felt that licensing charges might add significantly to the ongoing costs, particularly if tariffing granularity were increased to 1,000 number blocks or individual numbers.

A13.27 Increasing tariffing granularity for NTS numbers would not only increase the number of tariffs in use but would also facilitate further price competition (both between CPs and NTS Service Providers) which would increase the frequency of changes to tariffs. It would also result in an increase in the number of discrete price points that need to be implemented in each billing system. These factors would lead to an increase in the administrative resources that CPs need to maintain their retail and wholesale pricing lists and their billing system pricing tables.

A13.28 From discussions with BT and other CPs InterConnect believe that only a modest amount of additional resource will be required and that therefore the additional costs will be minimal. Figure 57 shows InterConnect's estimate of the additional costs that would be incurred by BT. Depending on the level of tariffing granularity implemented the additional cost might somewhat lower or higher than this figure.

**Figure 57: Estimate of BT’s additional ongoing costs to support increased tariffing granularity**

	BT Retail	BT Wholesale	Total
Ongoing Annual Cost	Approx £39k	Approx £39k	Approx £78k

**Implementation time scale**

A13.29 Figure 58 shows InterConnect’s estimate of the time required to implement increased tariffing granularity for the two cost scenarios.

**Figure 58: Estimate of time required to implement changes to BT’s systems**

	Implementation Timescale
Most Likely Case	9 months
Worst Case	13 months

**Other communications providers**

A13.30 As previously mentioned InterConnect has produced a qualitative evaluation of the impact of increased tariffing granularity on other CPs.

A13.31 Overall, the four CPs interviewed felt that there would be little technical impact of increased tariffing granularity. Most would be able to support it with relatively minor modifications to their current retail and interconnect billing systems. They also considered that the additional load on their systems would be minimal.

A13.32 None of the CPs felt able to estimate the likely cost without a more detailed specification of the changes to be implemented. There was a difference in opinion as to the likely scale of the cost. Three of the CPs felt that the costs would be modest but one was concerned that the cost would be high and would be difficult to cost-justify against the benefits of increased tariffing granularity.

A13.33 All four CPs expected that they would require additional resources to maintain the increased volume of tariffing information but again were unable to quantify the likely cost without more detail information on the changes to be implemented. The general feeling was that the increased cost would be fairly modest.

A13.34 One of the CPS was also concerned that greater tariffing granularity would increase the risk of introducing errors into billing reference data, that might jeopardise compliance with their billing accuracy targets.

## Annex 14

# Stakeholder engagement prior to consultation

- A14.1 The purpose of this Annex is to set out the extent of Ofcom's engagement with stakeholders prior to publication of this document.
- A14.2 On 5 July 2004, Ofcom published its *Notification of Ofcom's consideration of a network access question: re-examination of the NTS framework* ('the July 2004 Notification') which is available on Ofcom's web site at [http://www.ofcom.org.uk/ind\\_groups/ind\\_groups/telecommunications/nts\\_focus/notifications/net\\_access?a=87101](http://www.ofcom.org.uk/ind_groups/ind_groups/telecommunications/nts_focus/notifications/net_access?a=87101). Ofcom is required under section 105 of the Act to publish such a notification when it proposes to consider a network access question, and when, in determining that question, Ofcom wishes to consider making changes to certain regulatory obligations, for example SMP conditions. The purpose of the July 2004 Notification was to bring Ofcom's work to the attention of stakeholders most likely to be affected by Ofcom's actions.
- A14.3 In June 2004, Ofcom sent background information about Ofcom's NTS framework re-examination and invitations to a large number of NTS stakeholders, including:
- network operators (both mobile and fixed);
  - ISPs;
  - telecommunications industry trade bodies;
  - organisations representing consumers (whether residential or business) that dial NTS numbers;
  - organisations representing businesses that use NTS numbers to receive inbound calls;
  - the Independent Committee for the Supervision of Standards of Telephone Information Services ('ICSTIS'), the body responsible for regulating the content and promotion of PRS.
- A14.4 During June, July and August 2004 Ofcom met those stakeholders who accepted Ofcom's invitation to discuss their concerns and to allow them to provide early feedback on the policy options that Ofcom was developing. Some stakeholders unable to attend meetings with Ofcom were able to supply written comments or participate in conference calls. During this process, Ofcom identified further potential stakeholders who were approached as necessary.
- A14.5 The list of stakeholders with whom Ofcom had pre-consultation discussions includes:
- BT
  - The UK Competitive Telecommunications Association (UKCTA)
  - KCL
  - CoLT
  - C&W
  - Easynet

- Energis
- Thus
- Centrica
- Orange
- T-Mobile
- 3
- Wanadoo
- Tiscali
- Virgin.net
- IV Response
- BBC
- Endemol
- Telephone Helplines Association
- Call Centre Association
- Communications Management Association
- Consumer Action Network
- Central Office of Information
- Telecommunications Users' Association
- Federation of Small Businesses
- Confederation of British Industry
- National Consumer Council
- The Independent Committee for the Supervision of Standards of Telephone Information Services (ICSTIS).

- A14.6 Discussions with these stakeholders generally involved a structured agenda, seeking stakeholders' views on the key issues with the existing NTS regime, both for themselves and other stakeholders, and their preferences for the future.
- A14.7 On 23 July 2004, Ofcom issued a formal information request under section 135 of the Act to a wide range of relevant Industry stakeholders, seeking information including NTS call volumes, revenues and costs to assist Ofcom in understanding the structure of UK NTS Industry. This information has been used to produce Ofcom's description of the UK NTS Industry in Annex 5, and for Ofcom's market analysis in the NTS Call Termination Market Review.
- A14.8 In addition to Ofcom's programme of one-to-one meetings, Ofcom also gave periodic updates to the NTS Focus Group on Ofcom's progress. The NTS Focus Group is a group consisting of Ofcom and Public Electronic Communications Network Providers who have an interconnection agreement with BT. It meets regularly to act as an Industry forum for discussing and if possible resolving NTS issues. By July 2004, Ofcom was able to give the NTS Focus Group an early view of the NTS policy options that Ofcom was developing which are largely reflected in Section 4 of this document.
- A14.9 Ofcom also kept Ofcom's Consumer Panel up-to-date with developments prior to the publication of this document and provided it with an early view of Ofcom's likely preferred option and the outcome of Ofcom's business and consumer research.

## Annex 15

# Glossary

**Communications Provider (CP):** a person who provides an Electronic Communications Network or provides an Electronic Communications Service.

**Cost-Benefit Analysis (CBA).** An economic tool used to assess the desirability of a certain course of action by attempting to place a financial value on all the consequences, and comparing the net costs with the net benefits.

**ECS Provider.** A provider of a service consisting in, or having as its principal feature, the conveyance by means of an electronic communications network of signals, except in so far as it is a content service.

**Dial-up internet access:** internet access that uses a dial-up connection over an analogue or ISDN telephone line.

**ICSTIS:** the Independent Committee for the Supervision of Standards of Telephone Information Services, the premium rate service watchdog.

**ISP: Internet Service Provider.** A company that provides individuals and other companies with access to the internet and other related services.

**National Numbering Scheme (the Scheme):** the day to day record of telephone numbers allocated by Ofcom in accordance with the National Telephone Numbering Plan, and as provided for in section 56(3) of the Communications Act 2003.

**National Telephone Numbering Plan (the Plan):** a document setting out telephone numbers available for allocation and restrictions on the Adoption and other uses of those numbers, and as provided for in section 56(1) of the Communications Act 2003.

**Network Charge Change Notice (NCCN):** a document Issued by BT to notify the industry of changes to BT's charges to the industry.

**NTS: Number Translation Services.** Telephone services using the following numbers: Special Service numbers (including freephone, special local rate and special national rate) and Premium Rate Services numbers (PRS) (services currently provided under 090 and 091 number ranges). Within these ranges calls to 0844 04 numbers for Surftime internet access services and calls to 0808 99 for FRIACO (Flat Rate Internet Access Call Origination) are excluded.

**NTS Service Provider (NTS SP):** a provider of voice or data services to third parties using NTS numbers.

**Originating Communications Provider (OCP):** the Communications Provider on whose network a call originates.

**Premium rate service (PRS):** a particular type of Number Translation Service currently provided on the 090 and 091 number ranges, at the time of writing subject to a separate Ofcom consultation see <http://www.ofcom.org.uk/consultations/past/prs/statement/>.

Regulatory Impact Assessment (RIA): as assessment of the impact of regulatory options on stakeholders as defined by section 7 of the Communications Act.

SMP: Significant Market Power. The Significant Market Power test is set out in European case law, the new EU Communications Directives and the Commission's SMP Guidelines. It is used by the National Regulatory Authorities such as Ofcom to identify those Communications Providers who must meet additional obligations under the Access Directive.

Short Messaging Service (SMS): A means by which short text-based messages can be sent to and from digital mobile phones and other devices.

Terminating Communications Provider (TCP): the Communications Provider on whose network a call terminates.