

## Section 6

# Charge controls and other market power remedies

## Introduction

6.1 In this Section, paragraphs 6.2 to 6.111 essentially reproduce the analysis in the consultation document. From paragraph 6.112 onwards, Ofcom assesses the consultation responses and presents its conclusions on the issues raised in the relevant part of the consultation document.

6.2 This Section covers the following issues:

- summary of Ofcom's approach to existing SMP services conditions;
- key features of the charge control regime;
- Ofcom's approach to the key issues in setting these charge controls;
- changes to the structure of the controls;
- levels for the charge controls - values of X;
- other decisions on BT's charges; and
- a note on fixed call termination obligations for providers other than BT.

6.3 As set out in Section 3, Ofcom concludes that:

- BT continues to have SMP in the market for local-tandem conveyance and transit in the UK (excluding the Hull Area); and
- BT no longer has SMP in the market for inter-tandem conveyance and transit in the UK (excluding the Hull Area).

6.4 The other fixed narrowband markets to which charge controls currently apply are considered in Annex 5. For reasons set out in that annex, Ofcom is satisfied that there has not been a material change in any of those three markets, and therefore considers that BT continues to have SMP in each of them. Those markets are:

- call origination (in the UK excluding the Hull Area);
- single transit (in the UK excluding the Hull Area); and
- call termination on the BT network (in the UK).

6.5 The legal background to imposing SMP remedies, including charge controls, is set out in full in Annex 2, but the key issues are as follows. Where SMP is confirmed, Ofcom is under an obligation to impose at least one appropriate SMP condition. However, there are a number of legal tests, as specified in the 2003 Act and EC Communications Directives, which must be met for Ofcom to impose SMP conditions. It is Ofcom's view that the SMP remedies it has chosen to impose on BT satisfy these tests. Annex 4 sets out those remedies, the reasoning behind them, and how they meet the legal tests.

6.6 The following remedies currently apply to the markets covered by this document:

- charge controls;
- requirement to notify charges;
- basis of charges (i.e. cost orientation);

- requirement to provide Network Access on reasonable request;
- requests for new Network Access;
- requirement not to unduly discriminate;
- requirement to publish a Reference Offer;
- requirement to notify technical information;
- transparency as to quality of service;
- requirement to provide Carrier Pre-selection (CPS);
- requirement to provide Indirect Access (or 'Carrier Selection');
- requirement to provide NTS Call Origination;
- requirement to provide Flat Rate internet Access Call Origination (FRIACO); and
- requirement to have cost accounting systems and accounting separation.

6.7 Charge controls relating to these markets also cover the following BT services (described further in Annex 5):

- interconnection circuits, which are designated as 'technical areas' that are regulated as part of an overall solution to BT's SMP in the call origination and local-tandem conveyance and transit markets; and
- product management, policy and planning (PPP), which is regulated due to its status as a component of the services in which BT has SMP.

6.8 Most of these obligations were set in the form of SMP services conditions by Oftel in November 2003 after a number of 'market reviews'<sup>22</sup>. PPP was reviewed in 2004<sup>23</sup>, and cost accounting systems and accounting separation were reviewed in July 2004<sup>24</sup>.

### Summary of Ofcom's approach to existing SMP conditions

6.9 For inter-tandem transit and conveyance, Ofcom has decided to confirm its consultation proposal to remove all of BT's SMP obligations, including the current RPI+0% safeguard cap on charges. Under section 84(4) of the 2003 Act, Ofcom is obliged to revoke all SMP services conditions following a finding of no SMP. This is discussed further in paragraphs 6.38 to 6.45.

6.10 For LTC, Ofcom has decided to maintain the relevant obligations listed in paragraph 6.6. However, Ofcom has also decided to confirm its consultation proposal to make two changes to those obligations. Ofcom is reducing the period of price notification and changing the specific level of the charge control. These changes are discussed further in this Section. The legal tests for the obligations on LTC are considered in Annex 4.

6.11 The SMP services conditions currently applying to call termination, call origination, single transit, interconnection circuits and PPP (see Annex 5) will continue unchanged, except that Ofcom is making changes in the specific levels of the charge controls for those services. Those new conditions derive from Ofcom's charge control modelling (see Annex 6). Further background on those

<sup>22</sup> [http://www.ofcom.org.uk/consult/condocs/narrowband\\_mkt\\_rvw/nwe/fixednarrowbandstatement.pdf](http://www.ofcom.org.uk/consult/condocs/narrowband_mkt_rvw/nwe/fixednarrowbandstatement.pdf) & [http://www.ofcom.org.uk/consult/condocs/narrowband\\_mkt\\_rvw/Eureviewfinala1.pdf](http://www.ofcom.org.uk/consult/condocs/narrowband_mkt_rvw/Eureviewfinala1.pdf)

<sup>23</sup> [http://www.ofcom.org.uk/consult/condocs/rev\\_bt\\_pm/statement/statement.pdf](http://www.ofcom.org.uk/consult/condocs/rev_bt_pm/statement/statement.pdf)

<sup>24</sup> [http://www.ofcom.org.uk/consult/condocs/fin\\_reporting/fin\\_report\\_statement/finance\\_report.pdf](http://www.ofcom.org.uk/consult/condocs/fin_reporting/fin_report_statement/finance_report.pdf)

SMP remedies that are continuing unchanged is available in the Narrowband Market Review documents referenced at paragraph 6.8.

- 6.12 As Ofcom is making decisions on SMP services conditions in this document, it is publishing a formal statutory notification of those decisions under sections 48(1), 79(4) and 86 of the 2003 Act. The Notification is published at Annex 3.

### **Key features of the charge control regime**

- 6.13 The key aims of the NCCs are to prevent BT setting excessive charges in wholesale markets where it has SMP, while providing incentives for BT to increase its efficiency. The way in which this is done is to control BT's charges so that, by the end of a pre-determined period, BT's forecast excess ('super-normal') profits for those services should be reduced to zero, which is the level they would tend to in a competitive market.
- 6.14 To calculate the controls on BT's charges (values of 'X') Ofcom needs to bring forecast revenues in line with forecasts costs in the last year of the charge control period. It thus reflects both expected cost reductions and the elimination of any super-normal profits existing at the start of the charge control period. On the basis of this calculation, Ofcom requires BT to reduce charges by a pre-defined percentage (X%) annually, in real terms, for each service (or 'basket' of services that are subject to similar competitive conditions), the values of X varying between services.
- 6.15 The controls also allow BT to adjust prices for inflation, as measured by the retail price index ("RPI"), as inflation is out of BT's control. This, when added to the requirement on BT to cut charges by X% per year, produces an obligation that limits BT's price increases to a level of RPI-X%. This means that a given BT charge (or an average charge, where a number of charges are controlled a 'basket' of services) will fall in nominal terms as long as inflation does not exceed the value of X set for that charge.
- 6.16 The forecast of BT's costs and revenues over the period of the control involves many detailed calculations and assumptions, which are described further in Annex 6. Among the more important inputs to this calculation are a forecast of the traffic using BT's network (more traffic will reduce BT's average, or unit, cost of providing services) and a view on how much more efficient BT should be expected to become in the control period (higher efficiency will cut BT's costs).
- 6.17 The modelling of BT's future costs and revenues cannot be expected to be wholly accurate, as many changes in markets can affect the accuracy of the assumptions made at the time when the NCCs are set. However, by setting controls for a fixed period, the NCC regime does provide a period of certainty on charges that is beneficial to all providers. The system also gives BT incentives to increase its wholesale-level efficiency, by allowing it to keep any super-normal profits that it earns by increasing its efficiency (and therefore cutting its costs) by more than expected in the model.

### **Ofcom's approach to the key issues in proposing these charge controls**

- 6.18 The key issues determining the nature of the NCCs from October 2005 are:

- Which services should be within the scope of the controls?
- Which markets need regulating?
- For how long should the controls last?
- What efficiency gain should be expected for BT during this period?

6.19 All of these questions are greatly complicated by BT's move to its 21CN. Other factors, like forecast volumes, BT's starting profits, and BT's cost of capital are also important for the level of controls, but they are more issues of detailed modelling methodology that follow after an understanding of the broad approach to these 21CN-related questions.

### **The technology neutral model**

6.20 Ofcom's market definitions and SMP findings, covered in Sections 3 to 5 of this document, represent Ofcom's view on the services that should be controlled and the markets that need to be regulated for the purpose of this charge control. A key feature of those findings is that the services covered by the charge controls should be only those ones delivered using PSTN interconnection interfaces.

6.21 However, the issue of the scope and duration of the controls is complicated by the forthcoming migration of traffic, as services move from being delivered fully or partially over the PSTN to being delivered solely over the 21CN, using as yet unknown IP interconnection services. Potentially, a significant proportion of this migration will occur during the next four years. To cope with this, Ofcom has developed a 'technology-neutral model', which it is applying to these charge controls. The key features of this model have been discussed with BT and some other providers.

6.22 Given the economies of scale in BT's network, the value of X is very sensitive to the volume of traffic projected to use the network (which affects BT's unit costs). A four year cap applied, as before, to PSTN interconnection services only would require an accurate forecast of the rate of migration from the PSTN to the 21CN. However, the scale and timing of this migration in the next several years is very uncertain. This creates a risk that forecasts of PSTN traffic would be significantly wrong, causing the charge controls to be either too loose or too tight.

6.23 Ofcom had several options for addressing this problem:

- an interim review during the charge control period, with adjustments to the values of X were volumes to be significantly different from forecast levels;
- a shorter than normal control period, so limiting the degree to which charges could fall out of line with BT's costs;
- a 'technology-neutral model', in which the value of X is set as though all traffic continued to be carried over the PSTN. Within this hypothetical PSTN model, cost savings arising from partial use of the 21CN to deliver services could potentially be reflected by tightening BT's controls, were it thought that BT's partial use of the 21CN would lower its costs during this charge control period; or
- some combination of these options.

6.24 Both an interim review and a shorter control period would ensure that, were volume forecasts to be very wrong, charges did not move too far out of line with costs. However, there are also potential disadvantages. The main one is that,

were only PSTN traffic volumes to be taken into account under either option, BT could have incentives to migrate traffic at an inefficiently rapid pace from the PSTN to the 21CN. Also, if PSTN charges and 21CN charges were allowed to vary, BT would also have an incentive to forecast high migration to the 21CN. This incentive could arise because, by forecasting reduced traffic on the PSTN, BT's forecast PSTN unit costs would rise, suggesting that lower values of X were needed to erode BT's excess profits on PSTN-provided services. At the same time, traffic would be moving to a 21CN whose regulation and cost profile might be more favourable to BT.

6.25 There are two other disadvantages of the first two options. Firstly, there would be a generally lower incentive on BT to reduce its costs. This is because a longer control period, and one that is not subject to interim reviews, provides a longer period within which BT could 'outperform' the charge control, and keep the resulting profits. Four years has been established as an appropriate duration for many charge controls set by Of tel and Of com, as it balances incentive properties for the controlled provider and a fair distribution of increased efficiency through reductions in charges. Another disadvantage of these options is that they would not eliminate the problem of forecasting the pattern of traffic migration.

6.26 By contrast, the technology neutral model has some key advantages. Firstly, it provides BT with good incentives to migrate traffic efficiently, since the values of X would not depend on the rate of migration. It provides BT with an incentive to use the least-cost network, as BT would be charging the same for all services delivered using PSTN interfaces, regardless of whether or not the service is delivered through partial use of the 21CN. Because those charges would be the same irrespective of how calls are conveyed, BT's wholesale customers should be indifferent about precisely how the service is provided. The model also avoids the need for an accurate projection of the rate of traffic migration to the 21CN (by including 21CN volumes in the forecast for modelling purposes). Of com's approach also seems to properly reflect its legal duties on technology neutrality (see the fourth Community requirement in section 4(6) of the 2003 Act, which implements Article 8 of the Framework Directive). Finally, this approach has received broad support from BT and UKCTA (the body representing many of BT's main fixed line competitors) as a way of coping with the uncertainties generated by migration to BT's new network.

6.27 Of com considers that the advantages of the technology neutral model are strong, and it has therefore used this approach in developing the charge controls presented in this document.

6.28 For the avoidance of doubt, the use of the technology neutral model does not imply that new 21CN interconnection products introduced during the period of the NCCs would necessarily be covered by these charge controls. Based on Of com's current definition of the markets covered by the controls, the next NCCs will only definitely apply to existing NCC products delivered over the existing narrowband PSTN (i.e. C7) interfaces (including those provided partly over the 21CN). The regulation of new products will be considered when the details of such products become clearer. Even if some 21CN interconnect products prove to be in the same market as some current NCC products, it may not be necessary to extend the charge controls as the prices of the new products may be constrained by the controls on the existing ones.

6.29 The issue of relative PSTN and 21CN interconnect pricing is considered further in Of com's second consultation document on Next Generation Networks

(paragraphs 3.8 to 3.11)<sup>25</sup>. In that we set out a proposed approach to next generation voice interconnect. In summary this approach is that where Significant Market Power (SMP) is found, reasonable charges for next generation narrowband voice interconnect should take account of the need to avoid creating artificial arbitrage opportunities by taking a holistic approach to cost recovery, and the need to allow an appropriate return on BT's investment in NGNs.

### **Charge control period and mid-term reviews**

- 6.30 As discussed above, it would be possible to have a shorter control period than the standard four years, or a mid-term review, in combination with the technology neutral model. These are valid considerations, given the potential for significant change in UK communications markets during 2005-9.
- 6.31 These options would tend to reduce the degree to which BT's costs and charges fall out of line. However, the importance of this factor depends on how significant BT's 21CN efficiency savings are expected to be. As explained in paragraphs 6.36 to 6.37, these savings are not expected to be significant during 2005-9. Also, the potential disruptive influence on BT's modelled costs of traffic migration to the 21CN can already be addressed by use of the technology neutral model, so that migration is not a reason for a shorter control or mid-term review.
- 6.32 It could be argued that, in about two years, more accurate information would be known with which to set NCCs, as there would be better information about 21CN services, costs and volumes. However, it is not clear that markedly better information would be available then with which to determine costs, as at that time there could be significant dual running of the PSTN and the 21CN, making it difficult to get a clear view of costs for the relevant services.
- 6.33 The widely acknowledged efficiency incentives of a longer and fixed term cap have already been noted at paragraph 6.25. Such certainty would also provide a better platform for BT and other providers to invest in next generation networks in the coming years. While opening a control mid-term would make it possible to revise charges based on more up to date market and cost data, it has some significant disadvantages. It is a key element of RPI-X price controls that the regulator should not intervene within the charge control period to reset the value of 'X', unless changes in market conditions are of such magnitude as to threaten the regulated provider's ability to finance its activities. If the regulated provider believed that the regulator would intervene to reset a higher value of 'X', (were profits to be higher than expected), it would have a reduced incentive to seek cost reductions. Ofcom believes that it is highly desirable to avoid re-opening charge controls in mid-period due to these incentive effects, unless it is clear that the charge controls are operating in such a way as to distort competition.
- 6.34 Ofcom believes that the arguments support its decision to set a four year price cap from 1 October 2005 to 30 September 2009. BT and UKCTA also both supported this position even before the consultation period began, given the use of the technology neutral model to mitigate the potentially largest uncertainty for setting charge controls across this period.
- 6.35 It should however be noted that Ofcom is subject to legal duties (under section 84 of the 2003 Act – see Annex 4) that might cause it to re-examine the markets to which these charge controls apply, and therefore to reconsider the

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<sup>25</sup> [www.ofcom.org.uk/consult/condocs/nxgnfc/](http://www.ofcom.org.uk/consult/condocs/nxgnfc/)



controls themselves, before the four year period has ended. The circumstances in which a review of the markets would be needed are:

- if Ofcom considers it an appropriate interval to formally review the markets, for example as next generation products are introduced; and
- if the European Commission updates its Recommendation of markets in which ex ante regulation may be warranted, in a way that affects (or might be said to affect) what was taken into account in the last analysis of relevant market. In this context, Ofcom notes that the Commission has announced plans to review its Recommendation of. This review is scheduled for launch at the end of 2005 (although a completion date is not yet known). NRAs, such as Ofcom, are obliged to review the markets listed in the Recommendation 'as soon as reasonably practicable' after it is updated.

## **21CN efficiencies during the next charge control period**

6.36 The use of a technology neutral model for determining the relevant costs for the charge controls for 2005 to 2009 is described above. These costs will necessarily be hypothetical - for example the level of capital expenditure (capex) for PSTN equipment will be generated from assumptions in the model. BT's actual spend on PSTN equipment will be expected to be significantly lower, as it extends the operational life of existing PSTN equipment to avoid spend that would be made redundant by 21CN equipment. The model therefore does not attempt to forecast BT's actual expenditures in providing PSTN services over the period 2005-9.

6.37 Ofcom has considered whether it would be appropriate to include within the model assumptions the efficiency gains derived from lower capital and operating costs that BT is expected to benefit from in moving to its 21CN platforms. There are two reasons why this would not be appropriate for the purpose of setting the next NCCs. Firstly, Ofcom is already factoring in expected increases in efficiency - see paragraphs 6.68 to 6.70. In addition, it is not yet clear from the information BT has shared with Ofcom, what levels of efficiency might be achieved from 21CN by the end of the of 2009. Indeed, that information from BT indicates that the initial savings to be accrued by 21CN are more than outweighed by the initial duplication of costs of running down the PSTN.

## **Changes to the structure of the controls**

### **Inter-tandem conveyance and transit**

6.38 For these services (in the UK excluding the Hull area), Ofcom concludes that BT no longer has SMP (see Sections 3 and 5). The legal position given such a finding is very clear. That position is that, under section 84(4) of the 2003 Act, Ofcom must revoke existing SMP services conditions (including charge controls) when it is found that a provider no longer has SMP. Ofcom therefore is, as a direct consequence of its decision that BT no longer has SMP in that market, now removing the current RPI+0% control on BT's charges for inter-tandem conveyance and inter-tandem transit.

- 6.39 As well as removing the charge control, all BT's other SMP services conditions in relation to inter-tandem conveyance and inter-tandem transit must be revoked because of the finding of no SMP. This includes the requirement to provide the service at all, given that the network access SMP services condition is being revoked. Ofcom acknowledges that not all providers will be in an equally strong position to compete in the absence of regulation of ITC/ITT. Some smaller providers do not have the necessary scale that might justify direct interconnections and some of them might be dependent on BT for transit in some areas (although Ofcom's analysis of the geographic market suggests that this will apply to very few routes).
- 6.40 However, Ofcom's decision to remove SMP, and by extension to lift all regulation, has to be made based on an overall view of competitive forces in the market identified. While the removal of the SMP finding might cause some concern about the lack of an obligation on BT to provide the service at competitive prices, any general increase in BT's prices may well be met by competition from other providers, which would reduce BT's market share even further.
- 6.41 Ofcom's view is that over the period of the new NCCs, BT will continue not to have SMP in the ITC/ITT market. In keeping with its views as outlined in Phase 2 of the TSR, Ofcom concludes that this market has no enduring bottlenecks, and any ex-ante regulation would be disproportionate. However, Ofcom will monitor the ITC/ITT services provided by BT, and any residual concerns of market power may be addressed using Ofcom's ex-post powers under the Competition Act 1998. In addition, Ofcom will in due course again define and assess markets following the publication of a new Recommendation on relevant markets by the European Commission.
- 6.42 Stakeholders may also wish to note that BT has set out to Ofcom concerning some of its current thinking on the future of inter-tandem services, should SMP be removed. Note that this communication from BT (the key points of which are covered below) does not constitute an offer to contract, or a promise of undertakings, and it is not intended to be either of the two.
- 6.43 In general, BT stated that it intends to continue offering competitive products in this market, and does not envisage acting in ways that are likely to undermine the relationships that it has established over time with interconnect customers. More specifically, BT stated that:
- it intends to continue offering transit services, and does not currently expect this to change for at least 12 months after a removal of SMP;
  - unless there are sound commercial reasons for acting otherwise, BT does not intend to withdraw service selectively from existing consumers of BT transit products, or to refuse to supply new customers without good reason;
  - while competition rather than regulation will guide BT's pricing decisions, initial thinking around BT's eventual commercial offerings are that a "standard" product with publicly available pricing information may exist along with discount packages that are subject to commercial negotiation.
- 6.44 BT also stated that would communicate further with existing and potential customers after SMP removal, about its plans and customers' requirements. This would cover more detail on issues like price, other commercial terms, and notification. BT envisages doing this mainly through existing commercial channels.



6.45 As Ofcom's proposed market power determination of no SMP is now confirmed for this market, BT's obligations for ITC/ITT, with regard to charge controls as well as other SMP services conditions, are revoked with immediate effect. Ofcom notes one respondent's comment that current contracts assume SMP, but the legal position for Ofcom is clear. Contracts need to make sufficient allowance for potential changes in the regulatory position. At the same time, an existing Direction on credit vetting<sup>26</sup> is formally withdrawn in relation only to BT's SMP designation in the market for ITC/ITT. That withdrawal is published at Annex 3, and in Annex 4 Ofcom justifies this decision further, against the relevant legal tests.

### **Local-tandem conveyance and transit**

6.46 In Section 3, Ofcom concludes that, while BT still has SMP in the market for LTC and LTT (in the UK excluding the Hull area), there are more prospects for competition than when the market was last analysed in November 2003. In these circumstances, Ofcom had a choice of imposing a modelled RPI-X charge control or an RPI-0% 'safeguard' control on LTC.

6.47 There would be a good case for continuing with a modelled RPI-X charge control were there limited prospects for competition in this market, in combination with prices that were not at a competitive level. By contrast, in a market with reasonable prospects for competition, and where prices are already close to a competitive level, it could be argued that a modelled RPI-X charge control diminishes the incentives for investment and market entry, and therefore inadvertently forecloses the market to competition. The Narrowband Market Reviews in 2003 indicated that it was appropriate to closely monitor this market, to consider the suitability of moving to a 'safeguard' RPI-0% control.

6.48 Section 4 describes how charges for LTC prices converged in 2003-4 with the fully allocated cost (FAC) of the service, having been considerably over that level beforehand. In 1999-2001, the last two years of the 1997-2001 NCCs, charges were about 30-40 percent higher than the FAC. The recent convergence with cost has been underpinned by a tight RPI-13% charge control for LTC (combined with single transit) in 2001-5. Ofcom's technology-neutral (hypothetical) NCC model suggests that the current NCCs will largely erode BT's excess profits for LTC by the end of the control period. BT's actual excess profits for this period may well be different for reasons set out in Section 2.

6.49 Despite BT's high market share in this market, and the relatively limited prospects for a significant decline in that share, a number of large competitors are in a position to compete with BT in this market. They are able to do this by interconnecting at BT's local exchanges, either using their own infrastructure, or by leasing transmission capacity from BT, typically in the form of Interconnect Extension Circuits. When the LTC market was assessed in the Narrowband Market Reviews, one of these companies, C&W, suggested that there is only transitory dominance in this market and that either there should be no charge control or only a safeguard cap on services within this market. C&W expressed concern that the RPI-13% charge control was diminishing incentives for market entry and therefore inadvertently foreclosing the market to competition. BT and

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<sup>26</sup>[http://www.ofcom.org.uk/consult/condocs/narrowband\\_mkt\\_rvw/nwe/fixednarrowbandstatement.pdf](http://www.ofcom.org.uk/consult/condocs/narrowband_mkt_rvw/nwe/fixednarrowbandstatement.pdf)

C&W have recently reiterated the view that the LTC market may be potentially more competitive than in the past.

- 6.50 In the consultation document, Ofcom proposed that, given the movement of BT's prices to a competitive level - as indicated by the erosion of its LTC profits in 2001-5 and the convergence of LTC charges with costs (FAC) - and given the potential competition to BT in this market, it would on balance be appropriate to impose a safeguard cap of RPI-0% on BT for LTC, rather than a modelled RPI-X control. This was considered to increase incentives for competition in this market.
- 6.51 In the course of its analysis of LTC, Ofcom has been modelling an RPI-X control. It is worth noting that were Ofcom instead applying a modelled RPI-X control rather than an RPI-0% control, the value of X proposed in consultation would anyhow have been very close to zero.
- 6.52 The charge control covers LTC but not LTT. This simply reproduces the approach taken in the 2001-5 NCCs. As discussed in Section 4, LTC and LTT are in the same market, and regulation of one service should constrain the price of the other. LTC provided by BT forms the bulk of the market, and Ofcom considers that LTC should be charge-controlled, but there is no purpose in also setting a control for LTT.
- 6.53 It should be noted that this move to a safeguard cap is predicated on the continuing commercial viability of direct interconnection at BT's local exchanges. It is this form of interconnection that allows other operators to enter the LTC market, by substituting conveyance provided over their own network for conveyance provided by BT. It is not yet clear precisely what form of local interconnection will be provided on 21CN, but Ofcom currently expects that some form of local interconnection will be made available, and that this will be an adequate replacement for the current form of local interconnection with BT's PSTN. This issue is under review as part of Ofcom's work on NGN interconnection. Without prejudice to the findings of a future review of the appropriate market definition and BT's market power after BT's 21CN is introduced, the availability of such a replacement form of local interconnection would be more consistent with the safeguard cap approach than a scenario in which such local interconnection were not available.

### **Changes to charge control baskets**

- 6.54 In the current charge controls of 2001-5, some of the charge control baskets cover multiple services. The requirement on BT is to reduce average prices for the products in each basket to meet controls set for the overall basket. Two of these baskets are:
- single transit (ST) and local-tandem conveyance (LTC); and
  - interconnection circuits (ISB services) and PPP.
- 6.55 The essential reason for that basket structure was that it was considered that the services in each combined basket shared similar competitive conditions. It therefore did not appear necessary to constrain unduly BT's pricing behaviour by having separate controls for each of the products in these baskets.
- 6.56 However, in practice, the way in which BT has priced these services indicates that competitive conditions were not as similar as expected. BT has reduced LTC prices but raised the prices of ST. While Ofcom is applying a safeguard control to LTC, were Ofcom instead applying a modelled X for LTC, it would be on the basis

of having ST and LTC in separate baskets, given the seemingly different levels of competition in providing the two services.

6.57 For PPP, Ofcom has already re-assessed (in July 2004)<sup>27</sup> the appropriate BT charge and applied limitations on it by imposing a sub-cap of RPI+0% on the revised PPP charge within the overall cap on ISB and PPP. The differing competitive conditions found for PPP and ISB services, as reflected in the decision to set a separate cap on PPP charges, imply that the combined basket for ISB and PPP is no longer appropriate. Ofcom therefore is applying separate ISB and PPP caps for 2005-9.

6.58 Ofcom considers, however, that the ISB basket should continue to comprise the same group of interconnection circuit services (see Annex 5), as the competitive conditions for these services are similar enough to justify one overall ISB control. It is also more practical in terms of charging and the monitoring of charges to have the charge control apply to services which are intrinsically serving the same purpose (i.e. interconnection). The net effect of this should be that communications providers purchasing many types of circuits would benefit from a relative reduction in the prices of some, even if they were to face relatively higher prices for others.

### **Different values of X for call origination and call termination**

6.59 In the 2001-5 charge controls, Ofcom applied identical values of X to call origination and call termination. For the next charge controls, Ofcom has decided to set different values of X for these products. The reason for the different modelled values of X is the difference in the starting level of BT's super-normal profits for these two services.

6.60 In principle, a single identical value of network 'X' could be applied to both services, as for the current NCCs, based on the inevitable uncertainties to which the modelling results are subject, and the fact that the two services use the same network components. This approach would increase the value of X for call origination and reduce the value of X for call termination.

6.61 However, the differences in the modelled values of X for the next charge controls are more material than for the 2001-5 charge controls. On balance, therefore, Ofcom decided for its consultation document to maintain its proposal to apply different values of X for call origination and call termination. Ofcom's final conclusions on this issue are described at paragraphs 6.128 to 6.132 below.

### **The levels of the charge controls – final values of X**

6.62 In setting the values of 'X', Ofcom needs to consider a number of factors, including: the benefits of regulatory stability; the incentive properties of RPI-X regulation; the need to ensure that any forecast assumptions are reasonably derived from available data; and consumers' best interests. The 'X' factor also needs to ensure that BT is required to make real efficiency gains while ensuring sustainable competition. Ofcom has considered all of these factors in putting forward its decisions on the final values of X.

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<sup>27</sup> [http://www.ofcom.org.uk/consult/condocs/rev\\_bt\\_pm/statement/statement.pdf](http://www.ofcom.org.uk/consult/condocs/rev_bt_pm/statement/statement.pdf)

## Key factors affecting the values of X

6.63 A full analysis of how Ofcom derived its final values of X is provided in Annex 6, but to draw stakeholders' attention to some of the key factors affecting those final values of X, paragraphs 6.64 to 6.80 below give a brief summary of the key inputs and assumptions used to derive the values.

### *Traffic volumes*

6.64 Volumes of traffic on BT's network are a key factor in determining BT's profits. High economies of scale mean that as volumes rise, total revenues increase proportionately much more than total costs. The opposite effect on profits occurs when volumes fall.

6.65 In 2001-5, volumes were expected to rise, although they have in fact been a lot lower than forecast. For 2005-9, volumes are expected to fall, at an annual average of 4.5% for all traffic (including BT Retail traffic). This figure is based on extrapolating volume trends, plus other assumptions. Ofcom's overall estimate is broadly consistent with both BT's own view and those of third party analysts. Major factors in the volume decline are identified as movement of traffic onto mobile networks, and broadband substitution.

6.66 In modelling volumes, Ofcom has made some assumptions about the rate at which data traffic will migrate from narrowband to broadband. In the consultation document, Ofcom explained that it was considering how far to take into account that migration. This depends on the degree to which Ofcom expects BT to experience a rise in unit costs as a result of falling narrowband volumes. On the one hand, BT may experience 'economies of scope', as it can use some of the same (common) cost components in providing that traffic on a broadband basis. It is also the case that, if broadband substitution were fully reflected in the narrowband forecast, BT would have an incentive to maximise the forecast amount of such substitution in order to get a lower X on the NCC and retail uplift controls. However, some of the migration to broadband will cause traffic to leave BT's network, for example to LLU providers, which would limit those economies of scope. The greater the economies of scope that BT can benefit from, the more those migrating volumes can be assumed to still be on BT's narrowband network for the purpose of modelling BT's unit costs. To inform its view on how to adjust its volume forecast for BT (as explained in Annex 6), Ofcom sought stakeholders' views on the following issues:

- how far the same resources are used to provide narrowband and broadband wholesale services; and
- how far the traffic migrating from narrowband to broadband would be expected to leave BT's network, for example to LLU providers.

### *BT's starting profits*

6.67 BT's profits at the start of the next NCCs are forecast to be much lower than they were for the corresponding controls in 2001. This is shown in Section 2 above. Lower values of X are therefore appropriate due to the lower level of BT's excess profit that needs to be addressed.

### *BT's efficiency*

6.68 This measures the amount by which BT's capital and operational expenditure are expected to fall annually (after adjusting for the effect of volumes, input price changes and BT's catch-up for historical relative inefficiency). To calculate this, Ofcom has considered BT's historical reduction in unit costs (taking account of accounting adjustments to BT's financial data) and BT's efficiency relative to other companies (as assessed on Ofcom's behalf by NERA<sup>28</sup>). As a result, in the consultation document Ofcom projected BT's annual efficiency gain to be somewhere in the range of 2.5% to 4.5%.

6.69 The accounting adjustments issue concerns a number of BT adjustments that have not been separately identified in BT's regulatory financial statements. All of these adjustments have reduced unit costs for core network components. BT has argued that when Ofcom is examining its historical reduction in real unit costs, some of the reduction is due to non-repeatable savings (e.g. rates rebate) rather than true efficiency gains. As a result BT wanted the adjustments to be re-instated so that the final year operational cost used to measure BT's efficiency was not artificially low.

6.70 Ofcom has reviewed all the proposed and processed accounting adjustments made by BT during the current charge control period, and has accepted a number of these adjustments as valid (i.e. they do not arise due to real efficiency gains). When the consultation document was issued, two of the proposed adjustments were still being considered. These two elements together contributed about £43m of the reduction in network costs. Ofcom believed that at least a proportion of this figure represented the way economies of scope are reflected in the accounts, and therefore a genuine efficiency gain. Ofcom's analysis of these other potential adjustments is covered in Annex 6.

### *Cost of capital*

6.71 In the consultation document, Ofcom's projected ranges of X included an allowance for a range of values for the cost of capital, as Ofcom was at that time still consulting on BT's cost of capital, including a consideration of whether the cost of capital should be disaggregated for different parts of BT's business.

6.72 Simultaneous to the publication of this NCC statement, Ofcom is publishing its final cost of capital conclusions<sup>29</sup>. For services on BT's core network, such as those covered by the NCCs, Ofcom concludes that an appropriate estimate of BT's pre-tax nominal cost of capital is 11.4%. Ofcom has used that figure as one of the variables to generate the final values of X for the NCCs from 2005-9.

### *Cost basis for the NCCs*

6.73 In previous charge control reviews, Oftel modelled the charge control on two different cost basis; Long Run Incremental Costs plus an Equal proportional Mark-up for common costs (LRIC+EPMU) and Current Cost Accounting with Fully Allocated Costs (CCA FAC). The final charges were based on LRIC+EPMU. In the consultation document, Ofcom calculated values of X based on both methods, contributing to the ranges of X on which Ofcom consulted.

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<sup>28</sup> <http://www.ofcom.org.uk/consult/condocs/charge/nera.pdf>

<sup>29</sup> [http://www.ofcom.org.uk/consult/condocs/cost\\_capital2/statement/](http://www.ofcom.org.uk/consult/condocs/cost_capital2/statement/)

- 6.74 CCA FAC and LRIC+EPMU are two different ways of apportioning common costs, neither of which is technically superior to the other. LRIC+EPMU has been preferred in the past, and has the advantage that it is consistent with the basis used in NCCs since 1997. The disadvantage of LRIC+EPMU is that it involves a time consuming operation which BT carries out on an irregular basis, usually in developing price controls. Ofcom has little visibility of how BT generates these costs from its LRIC model, and this extra iteration by BT of its financial data is not subject to external audit scrutiny. Performance monitoring on a LRIC basis against BT's actual financial performance is not straightforward, as routinely prepared wholesale service profitability information is prepared on a CCA FAC basis. By contrast, CCA FAC uses data that can be reconciled to the regulatory financial statements, which have been audited and are in the public domain.
- 6.75 The actual LRIC+EPMU results were not found to be materially different from CCA FAC in the 2001 NCC review. BT has previously argued this point as a reason to use CCA FAC data in setting charge controls. However, the LRIC+EPMU figures initially supplied by BT for setting the 2005-9 NCCs assumed methodological changes to BT's LRIC model which Ofcom believed were not economically justified. This meant that BT's core network costs were materially overstated. In order to produce an appropriate LRIC+EPMU data, Ofcom asked BT to adjust and re-run the LRIC+EPMU model. BT was not able to perform this time-consuming task before the consultation document was published.
- 6.76 For the consultation document, Ofcom used CCA FAC data in its charge control modelling. BT estimated that the adjusted LRIC+EPMU data would be around 1.6% higher than the CCA FAC data. To allow for the possibility of moving to LRIC+EPMU data for the purpose of determining final charge controls, Ofcom inflated the CCA FAC data by 1.6% and reflected this adjustment in the range of Xs on which Ofcom it consulted. Using that 1.6% proxy for LRIC+EPMU costs reduced the values by about 0.5%. Ofcom's final conclusions on this issue are covered in paragraphs 6.137 to 6.138 below.

#### *Updated starting charges*

- 6.77 When proposing ranges of X in the consultation document, Ofcom used starting charges for the NCC services that did not adjust for the actual price changes that were subsequently made by BT on 1 April 2005. Instead it projected charges by applying the relevant X factor for each service to the previous year's charge. Without adjusting for these new charges, the purpose of the charge controls would not be achieved, because the charges made by BT in the final year of the charge control would not lead BT to earn zero supernormal profits according to the NCC model. Ofcom has therefore amended the modelled values of X to account for the new BT charges.
- 6.78 The effect of this is that where the 1 April BT charges exceed what was assumed for the consultation document then, other things being equal, a higher value of X is needed than before, although it may still be within the range of Xs proposed in the consultation document. Conversely, where BT's 1 April charges are lower than the NCC model had assumed then, other things being equal, a lower value of X is needed than Ofcom had proposed. By making these adjustments, average charges in the final year of the NCC period will (again, other things being equal) be the same as Ofcom had assumed in its consultation document. This will ensure that the NCC model still generates values of X which enable BT, for each NCC product, to recover its costs but not make supernormal profits. All that is changed by this adjustment is the path of price changes between



1 April 2005 and the end of the next NCCs. This therefore represents a change of input data rather than a change of methodology.

6.79 For all products other than PPP and single transit, the change in BT charges was very similar to that assumed for the purposes of the consultation, so the associated Xs for most products are very little changed: the Xs all rise very slightly (but remain within the consultation ranges). For single transit, BT's charge rose on 1 April (within the combined cap with LTC). In itself this would require a rise in the relevant value of X, although in response to consultation comments on bad debt Ofcom is also making another adjustment to that value of X, the net effect being that the X for single transit does not go outside the range of Xs on which Ofcom consulted.

6.80 The other product where BT has already made a major price change is PPP, where BT's price cut on 1 April requires that a looser control be applied over the charge control period. The effect of this is that, for BT to recover its costs, the appropriate value of X falls outside the consultation range. Rather than having to cut its charges by at least RPI-2.5% each year, the appropriate X is now RPI+0.75%. The basic features of Ofcom's methodology however remain unaltered as, under this X, BT should not be earning supernormal profits on PPP by the end of the charge control period.

#### **Change to charge notification period for local-tandem conveyance**

6.81 In the consultation document, Ofcom proposed that its market analysis for LTC also suggests a need to consider the appropriateness of the current requirement on BT to notify charges, terms and conditions for LTC.

6.82 Notification of changes to services at the wholesale level can assist competition by giving advanced warning of charge changes to competing providers purchasing wholesale access services. This is important to ensure that competing providers have sufficient time to plan for such changes, as they may want to restructure retail prices in response to charge changes at the wholesale level. Notification of changes therefore helps to ensure stability in markets and without it, incentives to invest might be undermined and market entry made less likely.

6.83 Notification of charges has certain disadvantages, particularly in markets where there is some competition. It can lead to a 'chilling' effect where other communications providers follow BT's prices rather than act dynamically to set competitive prices. On balance, however, Ofcom does not consider that this consideration undermines the imposition of this obligation. In markets where SMP remains persistent, there is a high level of reliance by competitors on the provision of access services to enable them to compete. It is possible, however, to reflect the development of competition in adjusting the notification period for particular markets.

6.84 Where competition has started to develop, Ofcom considers that 28 days is a sufficient notification period. Ofcom proposed that there is a sufficiently competitive position in the market for LTC and LTT on fixed public narrowband networks (in the UK excluding the Hull area). Consequently, Ofcom proposed to amend the relevant SMP services condition to reduce the notification period for BT's LTC service to 28 days. For all other markets in which BT has been found to have SMP (plus interconnection circuits and PPP), the 90 day notification period would remain unchanged.



## Other changes to BT's SMP obligations

- 6.85 Ofcom used the opportunity of the consultation process to propose changes that would affect BT's obligations in several areas:
- an update to the FRIACO adjustment ratio;
  - a surcharge to provide for BT cost recovery for an NTS-related change to BT's billing system; and
  - minor changes to SMP conditions on notification and undue discrimination.
- 6.86 A number of other issues are also described below that arose in Ofcom's pre-consultation discussions with stakeholders, but for which Ofcom did not propose to make any changes to the structure of the NCCs.

### FRIACO adjustment ratio

- 6.87 The FRIACO Adjustment Ratio (FRIACO AR) measures the average number of circuits per FRIACO port. It is used in setting the regulated charge for FRIACO. The FRIACO AR has been adjusted periodically, most recently in November 2004<sup>30</sup>. At that time Ofcom committed to updating the calculation of the FRIACO AR as part of the NCC consultation process. Ofcom has collected further data from BT to enable it to update this ratio.
- 6.88 Ofcom proposed that the value of the AR for DLE FRIACO should be reduced from 1.78 to 1.70, the latter figure constituting the best estimate on the basis of the data available. The estimation of this value and Ofcom's consideration of the consultation responses, and the impact on the modelled values of X for FRIACO are described in detail in Annex 7.
- 6.89 In Annex 7, Ofcom also discusses alternative views on how frequently the AR should be reviewed, from an annual basis to a review co-ordinated with reviewing the NCCs. The arguments surround certainty of charging and representativeness of the current AR calculations.

### Surcharge for NTS billing cost recovery

- 6.90 In October 2004, Ofcom made a Direction<sup>31</sup> relating to the method used by BT to calculate its wholesale conveyance charges for Number Translation Services (NTS) calls which originate on or transit the BT network for termination on NTS numbers of other Terminating Communications Providers. This Direction placed an obligation on BT to change its billing system. In relation to BT's charge for recovery of its additional set-up and on-going costs in completing this work, the Direction said that these costs should be recovered from all NTS operators, including BT itself, should take the form of a pence per minute ("ppm") surcharge to BT's existing NTS conveyance charges, and discussed that the charge would be set within the NCC Review.
- 6.91 BT has provided information regarding the costs of implementing INCA-CLI, covering both set-up costs and ongoing annual costs. In the consultation document, Ofcom calculated that with a recovery period of five years, and

<sup>30</sup> [http://www.ofcom.org.uk/consult/condocs/dle\\_friaco/statement/DLE\\_FRIACO.pdf](http://www.ofcom.org.uk/consult/condocs/dle_friaco/statement/DLE_FRIACO.pdf)

<sup>31</sup> [http://www.ofcom.org.uk/consult/condocs/inca\\_cli\\_nts/final\\_dec/inca\\_cli\\_finaldirection.pdf](http://www.ofcom.org.uk/consult/condocs/inca_cli_nts/final_dec/inca_cli_finaldirection.pdf)

spreading the costs over all NTS minutes as specified in the above Direction, BT could make a surcharge of 0.0014ppm in each of the five years from 2005/6. This surcharge would be an addition to any charges that BT is allowed to make under Condition AA11.

6.92 In consultation, only BT commented on this proposal, noting a need to adjust Ofcom's calculation of this surcharge. Ofcom acknowledge this, and calculation of the above figure in paragraph 6.91 incorporates the appropriate adjustment. The adjustment only made a difference at the 5<sup>th</sup> decimal place.

6.93 Ofcom has considered whether there is a need to impose a further Direction to impose this charge. Given BT's obligation is already described by the above Direction, and given the level of the surcharge, Ofcom does not consider it necessary at this stage to impose a further Direction. Instead, Ofcom will monitor BT's charges to ensure compliance with the Direction.

### **Minor amendments to notification and undue discrimination conditions**

6.94 Ofcom has decided, as proposed in the consultation document, to amend SMP Conditions AA6(a), AA6(b) and BA6 to make it clear that the obligations on BT to give prior notification of amendments to its reference offer, the charges, terms and conditions for Network Access (including the charges and terms and conditions for new Network Access) and technical information do not apply where such amendments have been directed or determined by Ofcom. The reason for this amendment is to avoid a situation where important changes are unnecessarily delayed, to the possible detriment of competition and the interests of consumers.

6.95 Ofcom has decided, also as proposed in the consultation document, to delete a specific provision in SMP Conditions AA2 and BA2 deeming BT to have shown undue discrimination in certain circumstances. This provision was intended only to be a specific example of how the undue discrimination obligation in SMP Conditions AA2 and BA2 would apply in practice. On 30 June 2005, Ofcom published for consultation its draft Undue Discrimination guidelines<sup>32</sup> on its proposed approach to investigate potential contraventions of SMP obligations not to unduly discriminate. In the light of the proposed new approach in the said guidelines, Ofcom has decided that it is appropriate to remove the specific example of undue discrimination given in SMP Conditions AA2 and BA2. The substance of the undue discrimination obligation, however, remains unaltered.

### **Two-part charging**

6.96 At present, most of BT's interconnection charges are set on a pence per minute basis and these charges cover both the costs incurred in setting up the call and those incurred for its duration. However, some costs vary with the number of calls rather than call minutes. Two-part charging is intended to reflect call set-up as well as call minute-related costs more closely. At present, charges for long duration calls tend to be in excess of costs, while those of short duration calls may be below cost.

6.97 Some of BT's competitors have favoured two-part charging but others have not. A mix of views would be expected: those with a traffic profile with longer than average call durations should tend to favour two-part charging, and vice versa. In

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<sup>32</sup> see [www.ofcom.org.uk/consult/condocs/undsmtp/](http://www.ofcom.org.uk/consult/condocs/undsmtp/)

the past, BT has rejected requests for two-part charging, in the absence of an industry consensus.

- 6.98 Oftel considered the case for two-part charging on a number of occasions. It generally found little interest from operators. When it last examined the issue, in September 2003, it found that £12m of costs of introducing two-part charging were likely to outweigh benefits of about £5m over a five year period. Ofcom shares BT's view that, given the pending move from PSTN to 21CN interconnection products, the argument for adopting two-part charging as a basis for the next NCCs is now even less persuasive. Ofcom has therefore not incorporated two-part charging into the NCC regime.

### **Capacity-based charging**

- 6.99 Another alternative to pence per minute charges would be one based on the amount of capacity in the network used by a customer. FRIACO represents a form of capacity-based charging for narrowband internet traffic, and prior to the consultation some providers expressed a potential desire for such a system for wholesale voice traffic, reflecting the development of retail tariffs that include unmetered voice calls.

- 6.100 Ofcom considers that the pending move from PSTN to 21CN interconnection products also is a good argument for not devoting extras resources to the development of a capacity-based charging system as a basis for the next NCCs. Ofcom has expressed, in informal discussions with stakeholders, the view that those wanting such a product should request it from BT under normal procedures. Ofcom also notes that the absence of such a product at wholesale level has not prevented the sale of flat-rate products at the retail level.

### **Time of day gradient**

- 6.101 The network time of day gradient describes how BT's wholesale charges vary according to the time of day. It therefore affects the charges that BT makes for NCC services. Oftel's network charge control guidelines stated that it would expect the network charge control gradient to be "directly coupled to that for retail prices where appropriate". This was to avoid possible margin squeezes which might arise if there were significant differences in the retail and network gradients.

- 6.102 This linkage can restrict the efficiency of the network tariff gradient as a peak-load pricing mechanism, since there are different traffic profiles (particularly for certain operators) and demand elasticities at the retail and network levels. Some of BT's competitors have expressed concern about the transparency of the retail time of day gradient, and Ofcom has suggested to BT that it provide clarification of how the retail gradient is calculated.

- 6.103 However, the modelling of the NCCs does not depend on differences in costs or charges by time of day, so that modelling has progressed separately. The issue of the tariff gradient applied to more services than those covered by the NCCs, so should also be considered separately for that reason. Ofcom hopes that greater clarity about the retail tariff gradient calculation will address operators' concerns.

### **'Three to two tier' charging**

- 6.104 BT has suggested that DLE and Single Tandem charge elements should be at least partially converged during the next charge control period, as a result of

moving to a new network architecture. It argues that the current three tiers of interconnection (DLE, single tandem, double tandem) will, as the 21CN is introduced, become two tiers (single metro node, double metro node), and that the single metro node element would be charged somewhere between the current DLE and single tandem charges. The proposed justification for this is that charges would be more cost oriented at the end of the next charge control period.

6.105 However, Ofcom does not believe that it would be appropriate to adjust charges to allow for such convergence during the next NCCs. Firstly, the 21CN interconnection products are not in the markets as defined and on which the next charge controls are based. Secondly, a movement to two tiers represents a BT assumption that no interconnection would be available at multi-service access nodes (MSANs) in the 21CN, but the issue of whether MSAN interconnection will be provided on 21CN has not yet been resolved. Ofcom therefore did not propose to adjust its NCC controls on the basis of this BT proposal.

### **A note on fixed call termination obligations for providers other than BT**

6.106 As Ofcom is considering the call termination charge controls for BT, it is a useful opportunity to re-confirm the corresponding obligations on other communications providers concerning their own charges for fixed call termination. Fixed geographic call termination has been assessed to be an enduring bottleneck, with each communications provider having SMP in the provision of the service to each other. The reasons for this were set out in the statement entitled *Review of fixed geographic call termination markets*, published in November 2003<sup>33</sup>.

6.107 In the absence of regulation, communications providers would have incentives to set charges in excess of their costs in terminating calls. For this reason, Ofcom believes that all communications providers should meet all reasonable requests to terminate fixed geographic calls, and do so on fair and reasonable terms, conditions and charges. In the event of a dispute, Ofcom would need to decide whether the terms, conditions and charges were fair and reasonable.

6.108 In the *Review of fixed geographic call termination markets*, it was explained that charges set on the basis of BT's costs would:

- ensure that the terminating communications providers could not set excessive charges; and
- encourage terminating communications providers to become increasingly efficient in the provision of fixed geographic call termination services.

6.109 However, the legal obligation (SMP services condition BC1) only requires communications providers to set "fair and reasonable" charges. It does not state that their charges have to be based on BT's. Nonetheless, in interrelationships with BT, Ofcom believes that charges that were not based on BT's might not be "fair and reasonable". BT might be required to pay more for call termination on another communication provider's network than it received from that provider for

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<sup>33</sup> See [http://www.ofcom.gov.uk/consult/condocs/narrowband\\_mkt\\_rvw/Eureviewfinala1.pdf](http://www.ofcom.gov.uk/consult/condocs/narrowband_mkt_rvw/Eureviewfinala1.pdf)

call termination on its own network. Ofcom does not believe that this would be competitively neutral.

6.110 In line with the continuation of the status quo in the regulation of BT's call termination service, Ofcom acknowledges that BT has proposed the renewal (for a 4 year period) of the existing reciprocal framework. Ofcom encourages communications providers to reach commercially negotiated reciprocal charging agreements with BT in a timely fashion that reflect the obligations on other communication providers as described above.

6.111 For interrelationships with communications providers other than BT, charges do not necessarily have to be based on BT's costs, but BT's costs could be used as a reasonable proxy.

### **Consultation comments and Ofcom's conclusions**

6.112 Paragraphs 6.113 to 6.163 below set out consultation respondents' views, and Ofcom's response, to a number of specific questions asked in Section 4 of the consultation document.

*Question 6: Do you agree with Ofcom's chosen approach – the technology neutral model – in developing the charge controls proposed in this document?*

6.113 Respondents clearly welcomed Ofcom's general modelling approach, for example BT supported it as a way to cope with the disruption and complexity of moving from a PSTN to a 21CN world, and UKCTA considered that it would address the risk of inefficient migration to 21CN. Some providers' general support was, however, conditional upon what happens with 21CN regulation. C&W, for example, did not want regulation of wholly-21CN services ruled out during the next NCCs, and it was unclear on the link between the NCCs and future 21CN regulations.

6.114 Ofcom welcomes the consensus on this key issue in relation to the specific question asked. In terms of future regulation, we acknowledge the concerns that several parties expressed about the impact and pricing of 21CN services relative to similar current PSTN services. The appropriate way for stakeholders to raise such issues is within Ofcom's existing project on NGN interconnection. We published our most recent views in that area in June 2005<sup>34</sup>.

6.115 Ofcom concludes that, within the context of future 21CN regulation being unknown, the NCC model it proposed has sufficient merit and sufficient support to retain it as a basis for its final calculations of values of X.

*Question 7: Do you agree that it is appropriate to set the next NCCs to last for four years?*

6.116 Respondents unanimously agreed with this key plank of the NCC proposals. There were also some comments on the desirability of re-opening the NCCs during the 4 year period, with BT suggesting this could harm investor confidence, and UKCTA and Energis suggesting that a material cost reduction might require the NCCs to be re-opened.

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<sup>34</sup> [www.ofcom.org.uk/consult/condocs/nxgnfc/](http://www.ofcom.org.uk/consult/condocs/nxgnfc/)

6.117 As outlined in paragraphs 6.30 to 6.34, Ofcom's clear preference is for a four year cap that is not re-opened. The nature of the hypothetical technology neutral model is also intended to minimise the need to re-open the NCCs due to significant forecasting error in the modelling process. That said, Ofcom has to keep in mind its legal duties to review markets and, as necessary, adjust SMP remedies according to its assessment of competition. But in terms of what NCC duration to embed at the outset, Ofcom maintains the same reasoning and support for a four year NCC period.

*Question 8: Do you agree with Ofcom's proposed approach to efficiency as regards BT's 21CN in proposing these charge controls?*

6.118 BT supported Ofcom's approach, pointing to a significant period of PSTN and 21CN parallel running, an accompanying initial rise in the regulatory cost base, and unstable unit costs for NCC and some other services. BT also considered it inappropriate to regulate away the rewards of innovation and investment. Most other respondents took a different view. For example, UKCTA did not consider that initial savings would be outweighed by parallel running costs, and pointed to inefficiencies incurred by all providers in the transition to the 21CN. A few respondents therefore suggested using a high efficiency target for BT in setting values of X. However, C&W considered that greater 21CN efficiencies should instead feed into lower prices for 21CN interconnect products.

6.119 Ofcom maintains its view that it is not appropriate to make the 2005-9 NCCs tougher on BT due to its introduction of the 21CN. Within its NCC model, Ofcom is already assuming a challenging efficiency target for BT - see paragraphs 6.68 to 6.70. Ofcom has also received no further evidence to support the idea that parallel running costs will be limited relative to 21CN efficiencies during the NCC period. Ofcom therefore has decided to maintain its consultation document proposal on this issue.

*Question 9: Do you agree that local-tandem conveyance is increasingly competitive and therefore the setting of a 'safeguard' cap should provide sufficient protection for competing communications providers?*

6.120 Consultation respondents agreed with Ofcom's proposal to set a safeguard cap on LTC. BT said that factors such as high connectivity of competing operators at DLEs, supported this proposal, and BT suggested that LTC could be competitive by 2009. All other respondents commenting on this agreed with moving to a safeguard cap, given the trend in BT's LTC prices relative to cost, although UKCTA referred to uncertainty over 21CN developments as a constraint on further DLE connectivity.

6.121 Given the agreement of consultation respondents with its proposal, Ofcom concludes that it is appropriate to set a safeguard cap of RPI-0% on LTC. Ofcom notes that BT's response did suggest a looser safeguard, but Ofcom's modelling work for NCC charges does not suggest that BT would need to increase prices in real terms (i.e. the modelling would still suggest a positive, albeit small, value of X) in order to recover costs.

*Question 10: Do you agree that product management, policy and planning and interconnection circuits should be subject to separate controls?*

6.122 Most respondents commented on this issue, and all of them including BT supported Ofcom's proposal. Most non-BT responses also however suggested

that Interconnect Specific Basket (ISB) services should be further sub-divided into separate controls on connections and rentals, suggesting that a combined ISB control gives BT too much scope to gain at the expense of those buying those services. Given the consensus on splitting PPP and ISB services into separate controls, Ofcom has decided to implement that consultation proposal.

- 6.123 Ofcom has also considered the question of splitting the ISB, which is currently composed of nine components for the purpose of the charge control. The basket comprises three interconnect links (i.e. CSI, IEC and IBC), each having a connection and a rental charge, and rearrangements of these interconnect links.
- 6.124 The rationale for including more than one element or service within a single basket is that the competitive conditions underpinning the different elements or services are similar. If different elements or services face similar competitive conditions, then subjecting the average price of these services to a single control not only treats them similarly, but also allows BT flexibility in pricing. This flexibility provides the incentive for BT to price efficiently in response to demand and cost changes. However, there are certain limits within which BT can set prices for each service within a basket. A good first-order test of whether a charge is unreasonable or otherwise anti-competitive is whether the charge in question falls between a floor of long run incremental cost (LRIC) and a ceiling of stand-alone cost.
- 6.125 Within a type of interconnect link, both connections and rentals face the same competitive pressures and it is therefore reasonable to regard them as part of the same basket. The charge for connections is only made once at the time of connection, whereas the charge for rental of the interconnect circuit is annual. The cost for operators in purchasing an interconnect link is therefore composed of a fixed charge and a variable charge, and BT can choose to recover more or less from each of the fixed and variable component as long as each individual charge is set within the floor and ceiling envelope. Caps on individual charges would require a level of regulatory oversight that may not be proportionate to the perceived benefits of such individual sub-caps.
- 6.126 There might be a case for this if volumes of new connections or rearrangements fluctuated markedly from year to year. This could in principle allow gaming of the control where the basket weights are based on prior year revenues. However, there is no evidence that this is the case, nor is there any clear evidence that BT has not been pricing in accordance with its obligations. Ofcom's analysis of 2002/3-2004/5 charges shows that rental charges for IECs and CSIs have been falling, as have connection charges.
- 6.127 In conclusion, Ofcom's view is that there is no strong justification for imposing sub-caps on the different components in the ISB, to override the starting point of placing all of the ISB services within the same control basket.

*Question 11: Do you agree that it is appropriate to apply differing values of 'X' to call termination and call origination services given the differences in starting profitability?*

- 6.128 Ofcom proposed to apply different values of X for call origination and call termination, unlike the 2001-5 NCCs, on the basis of a more material difference in the starting level of BT's super-normal profits for these two services than was the case for the 2001-5 charge controls.



6.129 A number of respondents expressed the view that the same value of X should be applied to both services. BT agreed that in principle it might be appropriate for different values of X to apply, but it argued that the difference in profitability was not material and that, for simplicity, the same value of X should be set. However BT also argued that call origination might become prospectively competitive by the end of the control period, whereas call termination was likely to remain an enduring bottleneck.

6.130 Some other respondents also argued for a single value of X on the grounds that the main cost components (the local processor and concentrator, and conveyance between them) are the same for both origination and termination. C&W however noted that a difference in traffic time of day profile for the two services might justify different values of X.

6.131 Ofcom has considered these arguments, and it maintains that it is appropriate for different values of X to be set for origination and termination. This is because it considers that the differences between the two services are material. Origination includes intermediate services (operator assistance and emergency service) which are not included in termination. This results in differences in charges, profits and potentially in the rate of change of service costs over time. These differences are greater than at the time the 2001–5 control was set. This means that a single value of X could require the charge for one service to be materially below (forecast) cost while excess profits remained on the other. In this case, it is likely that termination would remain priced above cost while origination would be priced below (fully-allocated) cost. While there is no indication that the charge for origination would be below the (LRIC) cost floor, it is generally undesirable on competition grounds for, in effect, costs to be recovered disproportionately from services in which the regulated firm is most strongly dominant (this is why origination and termination are in separate baskets). Moreover, to the extent that call origination becomes more competitive in the near future, it would clearly be appropriate for the value of X for call termination to be set on the basis of termination costs and revenues alone.

6.132 Ofcom has therefore concluded that different values of X should apply to call origination and termination.

*Question 12: What are your views on Ofcom's projected volume growth forecasts as set out in Annex 8 (see Annex 6 for Ofcom's updated view), and the proposed adjustment of modelled volumes to account for traffic migration to broadband?*

6.133 BT proposed that Ofcom should project average volume declines of 6-7% rather than the 4.5% proposed in the consultation document. In contrast, UKCTA, Energis and Vodafone argued that Ofcom was too pessimistic on volume declines, for various reasons including the impact of fixed-price retail packages in the fixed sector. Two other respondents viewed Ofcom's forecasts as reasonable.

6.134 On adjusting volume estimates to account for broadband economies of scope, BT accepted that these could exist to a limited degree, but to a maximum of about 12%, not in the 20-60% range proposed by Ofcom. BT also suggested that such economies were already reflected in Ofcom's efficiency projection, and questioned the evidential basis for Ofcom's range. UKCTA stated that it would support an Ofcom decision somewhere within the 20-60% Ofcom range, whereas Energis favoured a position at the top end of that range, and Vodafone supported the principle of making an adjustment. C&W viewed Ofcom's decision as a policy one, which should consider issues such as traffic migration to 21CN interconnect.

- 6.135 Ofcom's detailed views in response to these consultation comments are covered in Annex 6. In summary, Ofcom believes that its volume forecasts strike a reasonable balance, as is indicated by the range of consultation responses.
- 6.136 Ofcom has used a figure of 30%, towards the bottom of the range suggested in the consultation document, for the proportion of broadband substitution volumes to be included in the narrowband volume projection. The choice of a number at the bottom of the range acknowledges the possibility that BT could lose additional market share as customers switch to broadband, the likely extent of re-use of components and the need to provide appropriate incentives and protection for narrowband customers. This assumption should also be seen in the context of the other assumptions in the model. For example, it could be argued that a higher forecast for total broadband subscriber numbers should be accompanied by a lower projection for the proportion of subscribers who switch from narrowband and a higher rate of "add-back", because higher broadband subscriber numbers may indicate that broadband services are attracting customers who had not previously considered the internet worthwhile and also increases the subscriber base over which costs can be recovered. The central assumptions in Ofcom's model are now 14.2m broadband subscribers by the end of the charge control period of which 90% are assumed to have been narrowband subscribers. These assumptions together with the 30% add-back are consistent with FRIACO switch-off. They are relatively conservative and it should be noted that other combinations of these assumptions which would have the same implications for volumes might also be regarded as reasonable. It should also be noted that the values of X in the network charge control model are not highly sensitive to changes in the "add-back" assumption.

*Question 13: Should Ofcom move from LRIC+EPMU to CCA FAC as the cost basis for determining the NCC, even though it would be inconsistent with the precise methodology by which common costs were recovered in previous NCC reviews?*

- 6.137 The four respondents other than BT that commented on this all supported a move to using CCA FAC. C&W suggested that, before doing so, Ofcom should consider whether BT gained an advantage in terms of 21CN cost allocation, although C&W itself saw no reason why such an advantage should arise. BT cited greater transparency of CCA FAC and price signal advantages of LRIC+EPMU, and stated its expectation that were Ofcom to move to CCA FAC then it would expect this approach to also apply to future decisions.
- 6.138 Ofcom considers that none of the consultation responses affects the main reasoning for its proposal as presented in the consultation document. Since the consultation document was published, BT has been unable to provide LRIC+EPMU data in which Ofcom has sufficient confidence to use as the basis for charge control setting. Given that LRIC+EPMU is not conceptually superior to CCA FAC as a cost basis for setting the NCCs, but that CCA FAC has transparency benefits, which are supported by most respondents commenting on this issue, Ofcom concludes that CCA FAC is a more appropriate basis to use for setting the NCCs. On the 21CN issue raised by C&W, Ofcom agrees with C&W that there is no obvious reason why BT would have an advantage (or a disadvantage) from moving to CCA FAC. Ofcom also acknowledges the value of consistency on the cost basis. It therefore intends to consult on the adoption of the same standard for setting prices for LLU and WLR.

*Question 14: Do you agree that local-tandem conveyance is increasingly competitive and therefore it is appropriate to reduce the prior notification period that BT should be required to give before proposing to change charges, terms or conditions to twenty-eight days?*

6.139 BT agreed that it would be consistent with the approach on the current notification period for the 'safeguard cap' inter-tandem services to cut the LTC notice period to 28 days to acknowledge the extent of competition. BT also considered that 90 days' notification is excessive for non-safeguard cap products. Three other respondents also supported a reduction, although two of those suggested that moving to a suggested industry norm of 30 days would be more appropriate. Two respondents opposed any reduction, because they argued that it would provide insufficient time to react to any price changes.

6.140 Ofcom believes that it should move to a 28 day notification period. This is in line with other safeguard-capped services and reflects the increased competition in the local-tandem market. In view of this, BT should be afforded greater flexibility to change prices at reduced, though still significant, notice. Ofcom notes in this regard that a 28 day notification obligation has allowed BT's SMP status to be eroded for inter-tandem services. Ofcom believes that the difference between 28 and 30 days is not material and that the safeguard cap plus the 28 day notice period provide a significant degree of predictability appropriate to the level of competition in the market. Therefore, Ofcom concludes that it should implement its proposal to move to a 28 day notification period for BT's LTC service. Ofcom does not consider BT's suggested reduction of the notice period for other products to be appropriate, as there has been no material change in BT's degree of dominance in the relevant markets which would alter the initial justification for imposing that notice period.

*Question 15: Does the Adjustment Ratio for DLE FRIACO need to be reviewed annually or should it be fixed at the proposed value for the duration of the charge control?*

6.141 BT suggested that FRIACO's terminal decline implied that there is no need for a frequent review of the Adjustment Ratio (AR), and that instead Ofcom should either not review it again or do so at predetermined intervals that involved no change in methodology. C&W opposed annual reviews of the AR. Also, BT and C&W both cited potential problems with future reviews, in terms of reductions in FRIACO traffic and circuits and 21CN migration respectively. UKCTA and Energis proposed no further review of the AR, as long as Ofcom sets a new AR using their favoured methodology.

6.142 Ofcom discusses this issue in detail in Annex 7. In brief, Ofcom considers that it is proportionate to review the value of the adjustment ratio at a future date, probably not before Autumn 2006, depending on market conditions, the volume of FRIACO traffic and any evidence of significant changes in EPCs. Any decision to fix the value would be taken after a review of the data at that point.

6.143 As regards the value of the DLE FRIACO AR, having reviewed the responses and up-to-date data, Ofcom has decided to set the value of the AR at 1.70, as proposed in the consultation document. Annex 7 describes the consultation comments and Ofcom's reasoning for this conclusion.

*Question 16: Do you have any other comments on Ofcom's proposals regarding BT's SMP remedies, including charge controls, as contained in this document?*

## **FRIACO Charge Control**

- 6.144 BT has argued that demand for unmetered narrowband internet access is likely to decline effectively to zero during the next charge control period as customers switch to broadband access and that, as a result, wholesale fixed rate internet access call origination (FRIACO) “will have been withdrawn due to lack of demand before 2009/2010”. BT has suggested that this means that FRIACO should be subject only to a safeguard cap rather than a modelled cap as proposed by Ofcom. BT’s response applies to DLE FRIACO as well as ST FRIACO (which currently has no users). C&W also comments that FRIACO charges should only decline if BT can cut the relevant costs.
- 6.145 There seem to be two possible strands to BT’s argument. One is that it is difficult to forecast costs in the circumstances of sharply declining demand, a view also expressed by another respondent who argued that unit costs would not be expected to decline when volumes are declining. The second seems to be based on a view that it is simply disproportionate to apply a binding cap to a declining product.
- 6.146 Ofcom accepts that demand for unmetered narrowband internet access is declining and that this may well result in “FRIACO switch off” during the next control period. Indeed, this view is reflected in its forecast usage of BT’s network. However, this does not mean that FRIACO unit costs will not decline. This is because the unit cost of FRIACO will depend on the volume of demand for local exchange circuits from all sources, including metered voice and data, not just FRIACO. This, along with other factors, is reflected in the values of X that Ofcom has decided to apply to FRIACO.
- 6.147 Ofcom also does not agree that it is disproportionate to apply a binding cap. As long as there remains reasonable demand for FRIACO and BT has SMP in the relevant market, then it is reasonable to apply a control which ensures that charges are not excessive. Even if commercial negotiations promote migration from FRIACO, in such circumstances it would be inappropriate to allow remaining FRIACO customers to face excessive charges. Therefore, Ofcom has decided to apply a binding control to DLE FRIACO (and ST FRIACO).

## **Single transit**

- 6.148 BT suggested in its consultation response that Ofcom should place only a safeguard charge cap on single transit because it was proposing to reduce regulation on all other products at the tandem layer. BT’s points are considered in detail in Annex 5 but, on this specific point, Ofcom maintains that the competitive conditions for single transit are different to other tandem layer products and that a binding charge cap remains justified.

## **Bad debt in transit**

- 6.149 BT stated in its consultation response that it is exposed to an undue risk of bad debt, due to its obligation to transit traffic of much greater gross value than the net revenue it earns from that traffic. This risk arises because BT has an obligation to pay terminating providers without yet having received a payment from originating network operators.

- 6.150 Ofcom accepts BT's general point that its SMP-based obligation to provide single transit creates a disproportionate risk for BT, arising from its unique provision of a service on which it earns very limited net revenue relative to the gross payments associated with the transited traffic. The NCCs proposed in the consultation document did not acknowledge this bad debt risk specific to single transit, as there was no relevant bad debt expense in the base year used for the model. The effect of this is that there would be no provision for BT to recover any single transit bad debts that might arise over the four years to 2009. The question, then, is how far to refine the value of X for single transit to reflect the expected cost of the bad debt associated with the service. Ofcom's decision on this issue is informed by the previous incidence of bad debt, and by the potential to further develop measures to reduce that incidence.
- 6.151 Ofcom has received information from BT on the provisions it has had to make against actual bad debt on wholesale revenues in total during the five years from 2000-1 to 2004-5. This suggests a five year average of 0.6% bad debt (representing the average of 0.0%, 1.0%, 1.5%, 0.4% and 0.2%, in date order). Data for the current year also indicate an increase on the previous two years. The way in which BT's bad debt has been attributed makes it unfeasible to clearly attribute bad debt to individual products such as single transit. However, there is no obvious reason why the level of bad debt would be lower for single transit than for wholesale revenues in general.
- 6.152 Ofcom recognises however that recognising BT's bad debt exposure for single transit in the NCCs would not reduce the level of bad debt. To do this, BT could strengthen incentives for prompt payment, and use processes such as enhanced credit vetting. Some such steps have been taken previously, and indeed the previous bad debt incurred by BT must be seen in the light of credit vetting changes introduced three years ago that may have limited the bad debt incidence since then.
- 6.153 As a result, Ofcom considers it appropriate to refine its NCC modelling to recognise the impact of bad debt for single transit. However, it is open to BT to propose process changes to further limit bad debt. Indeed, Ofcom has recently had communications with BT and other providers about developments in this area. Therefore, Ofcom has decided to take a balanced approach that makes only a partial adjustment. This recognises expected single transit bad debt based on previous history, and also anticipates further developments to reduce bad debt.
- 6.154 In terms of the appropriate cost adjustment Ofcom is, for modelling purposes, adjusting down BT's past average incidence of bad debt (0.6%), to reflect the fact that current bad debt reduction processes were not in place throughout the period from which that average is derived, as well as providing incentives to minimise future bad debt. From this position, with 0.5% as a more appropriate starting point, Ofcom has decided to reflect half of that figure in its NCC modelling. This means that 0.25% of the value of gross payments by BT for single transit (£1,072m in 2003/4) will be added to BT's costs for that product, to represent the expected cost to BT of single transit bad debt.
- 6.155 Ofcom acknowledges that its decision on this issue, which arose in BT's consultation comments, does not follow cross-industry discussions. However, without addressing this issue now, there would be a danger of entrenching inappropriate price reductions that would be a less accurate reflection of the true cost of the product. Ofcom also recognises that providers' views on this issue may vary. However, as with many elements of the NCC framework the central

assumptions that Ofcom needs to make will reflect some operators' profiles more than others. For example, Ofcom's volume forecasts for individual products may not reflect an individual provider's product mix.

- 6.156 Even after this change, the value of the X for single transit remains at 11.5%, which is within the range of Xs upon which Ofcom consulted, thereby meeting stakeholders' expectations from the consultation document. Also, this decision importantly retains incentives on BT and other providers to reach agreement on bad debt reduction measures, which Ofcom would welcome.

### **Proposed SMP condition amendments**

- 6.157 BT suggested in its consultation response that Ofcom contribute to securing legal clarity about the application of SMP conditions and/or market definitions in the context of BT's change to its 21CN. Ofcom has considered the issue of whether the SMP conditions and/or market definitions need to change to clarify the position of 21CN interconnect products or allow for their inclusion within the scope of the NCCs.
- 6.158 Ofcom has concluded that it is not appropriate to change the SMP conditions. Specifically, it is not appropriate to define the conditions to only cover products delivered over C7 interfaces. This is because, in due course, it is possible that at least some 21CN interconnect products (which are not delivered over C7 interfaces) will be in the same market as the current PSTN products. As Ofcom may at that point decide that it is appropriate for those products to be covered by the NCCs currently being set, the SMP conditions should not be drafted so narrowly as to preclude that.
- 6.159 It is also currently inappropriate to change existing market definitions in order to account for 21CN interconnect products. Those products have been excluded from Ofcom's market definitions precisely because it is not currently possible to say whether they will be in the same markets as those currently defined. While some markets are named by reference to specific PSTN architecture, this complication cannot be resolved in a future-proof way at this time.
- 6.160 BT also suggested that there was a need to slightly amend the NCC conditions to add clarity in terms of the provisions on carry-over of charge excesses and deficits from one charge control year to the next. Ofcom has therefore reviewed the charge control conditions, and has made drafting changes to SMP Conditions AA4(a).4 and AA4(a).5 (on call origination) and their equivalents for other NCC services. This new wording, however, represents new Ofcom text rather than BT's own proposed changes. The new wording can be seen in Schedules 2 to 4 to the Notification in Annex 3.

### **Relevance of international benchmarking for charge controls**

- 6.161 BT in its response states that international benchmarking of prices should be given much more weight in the setting of charge controls, and contends that Ofcom applies an inconsistent approach to its use of benchmarking studies. BT provides much information on its generally low wholesale prices relative to nearly all EU equivalents. BT has, since its consultation response, provided an update of this information which improves BT's relative ranking following price increases in Denmark.

6.162 Ofcom has in its NCC modelling used benchmarking to compare BT's network efficiency with relevant comparator companies from the US, for which reliable information is available. This allows controls to be set to bring charges into line with those of an efficient operator. The success of this approach is demonstrated by the fact that BT's interconnection charges are generally among the lowest in the EU. Ofcom also believes that it is reasonable to expect BT's prices to be at this level, just as in a competitive market, convergence should be towards best practice rather than the average. Price benchmarking can show areas in which BT is behind best practice as well as areas where it is close to or at this level. In the latter case, it is appropriate to expect this performance to be maintained, particularly given inevitable uncertainties about the extent to which overseas operators' prices may reflect costs and the efficiency of these operators. To do otherwise would be damaging to consumers and dilute the efficiency incentives on BT that are provided by the NCCs regime.

6.163 Price benchmarking results represent a number of factors, including the precise nature and history of regulation on each provider, population density and geographies of each country and the cost structures and levels experienced by each service provider. It is one piece of information that Ofcom can use to inform its decisions, especially in the absence of more detailed cost information. In particular in situations where a provider is already favourably benchmarked, the regulator of that provider is likely to find price benchmarking less useful in making its decisions.

### **Summary of Ofcom's final conclusions on remedies**

6.164 Ofcom's most prominent decisions on remedies are as follows:

- to use its proposed technology-neutral model to calculate the NCCs;
- to apply the NCCs for a four year period from 1 October 2005;
- to not make a specific 21CN-related adjustment to the 4.5% annual target for BT efficiency improvements used in the NCC model;
- to remove all BT's obligations for inter-tandem conveyance and transit, including the current RPI+0% safeguard cap on charges, in line with the removal of BT's SMP designation in the relevant market; and
- to apply a safeguard cap of RPI-0% to local-tandem conveyance, and reduce its notification period for changes to prices etc to 28 days.

6.165 The following decisions are the more detailed ones that Ofcom has taken:

- to apply separate controls to single transit and local-tandem conveyance;
- to change to separate controls for PPP and ISB services (but not to further subdivide the ISB controls into connections and rentals);
- to maintain binding caps on FRIACO and single transit services (and adjusting BT's single transit costs to acknowledge bad debt);
- to apply different values of X to call origination and call termination;
- to forecast an average fall in traffic volumes on BT's network of 4.5%pa;
- to adopt a cost basis of CCA FAC in modelling the NCCs;
- to reduce the value of the DLE FRIACO adjustment ratio to 1.70;
- to make slight drafting changes to SMP conditions on carry-over between charge control years of excesses and deficits in price changes; and



- to leave SMP conditions for call termination, call origination, single transit, ISB and PPP unchanged, except for the levels of charge controls.

### Final values of X

6.166 Table 6.1 below embodies the results of these decisions, listing the values of X that will apply in the next NCCs. Most of these decisions do not represent substantive changes to the remedies proposed in the consultation document. The two areas in which minor changes have been made are to adjust the single transit charge control for bad debt, and to move the charge control for PPP out of the consultation range in order to reflect a BT price cut that was not already captured in Ofcom's proposals. Ofcom does not consider that these two changes are material modifications to the basic features of the proposals in the consultation document.

Table 6.1 Current and future values of X

Service	Current controls 2001-5	Future controls 2005-9
Call termination	RPI – 10%	RPI – 5%
Call origination	RPI – 10%	RPI – 3.75%
Single transit	RPI – 13% for combined basket	RPI – 11.5%
Local-tandem conveyance		Safeguard cap of RPI – 0%
Interconnection circuits (ISB)	RPI – 8.25% for combined basket; RPI + 0% sub- caps for each of ISB & PPP	RPI – 5.25%
Product management, policy and planning (PPP)		RPI + 0.75%
DLE FRIACO	RPI – 7.5%	RPI – 8%
Single Tandem FRIACO	RPI – 8.75%	RPI – 8.5%
Inter-tandem conveyance and Inter-tandem transit	Safeguard cap of RPI – 0%	No control as no SMP

## Section 7

# Conclusions and future developments

7.1 Ofcom is making in this document a number of changes to regulation, including:

- the removal of BT's SMP obligations in the market for inter-tandem conveyance and inter-tandem transit in the UK (excluding the Hull Area); and
- the imposition of new NCCs for four years, from 1 October 2005, for all other services currently subject to NCCs, including moving to a safeguard charge control of RPI-0% on BT for local-tandem conveyance services.

7.2 Having formally consulted on these proposals, and considered representations made by stakeholders, Ofcom may, under the provisions of the 2003 Act, give effect to its consultation proposals, with or without modifications. The few, non-material, modifications made by Ofcom to its proposals are explained in Section 6.

7.3 Ofcom publishes at Annex 3 of this Explanatory Statement a statutory notification (as well as a withdrawal of direction) that gives legal effect to its final decisions:

- to revoke all SMP services conditions, and to disapply a direction on credit vetting, in so far as they apply to the market for inter-tandem conveyance and transit;
- to set new charge control conditions on all of the services currently covered by the network charge control regime, except for inter-tandem conveyance and transit;
- to modify the notification period condition for local-tandem conveyance;
- to re-set, unamended, all other obligations relating to SMP in local-tandem conveyance;
- to modify the SMP services condition that specifies the value of the DLE FRIACO adjustment ratio; and
- to make minor changes to notification and undue discrimination conditions.

7.4 In Annex 4, Ofcom provides further justification for these legal changes, including assessments of how it considers that its decisions satisfy the relevant legal tests.

7.5 Ofcom recognises that the decisions described in this Explanatory Statement are made in the context of pending changes to BT's network. Ofcom has approached this issue by setting NCCs that do not depend upon the rate of migration from PSTN to 21CN services. Other implications of the move to 21CN are being considered in other Ofcom work, as referenced elsewhere in this document<sup>35</sup>.

7.6 Ofcom also recognises that this Explanatory Statement confirms the removal of regulation in the inter-tandem market, and that some providers are concerned about the implications of this. It should be noted that Ofcom will monitor developments in this market, and is able to investigate any residual concerns of market power under its Competition Act powers. In addition, Ofcom will in due

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<sup>35</sup> see Ofcom's most recent publication at [www.ofcom.org.uk/consult/condocs/nxgnfc/](http://www.ofcom.org.uk/consult/condocs/nxgnfc/)

course again define and assess markets in accordance with its responsibilities under the Communications Act and the European legislative framework.