BASIC DETAILS

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BT's response to Ofcom's Call for Inputs on the Fixed Narrowband Market Review and Charge Control

28 June 2012

Executive Summary

BT welcomes the opportunity to provide early input to Ofcom's analysis of the narrowband markets. These markets continue to be vibrant with wide range of choice, good quality services and low prices compared to other national markets. Since the last reviews in 2009-10 there has been considerable change, with further increases in mobile traffic at the expense of fixed call minutes, increased access via MPF and cable, as well as greater sophistication in buying decisions with the rise of multipleservice bundled offerings. In this context many of the regulatory remedies now in place have become obsolete. In particular, the requirement on BT alone to provide Carrier Pre-Selection (CPS) and Indirect Access (IA) is disproportionate and unnecessary. The current restrictions on BT in terms of undue discrimination also risk stifling innovation and free competition in these markets. Ofcom should take this opportunity to accelerate deregulation of narrowband markets.

Introductory comments

This is the first time that Ofcom has essentially conducted a "fixed narrowband <u>calls</u>" market review as, back in 2009, Ofcom's market review included the provision of narrowband access services within its scope. While we understand the operational reasons why Ofcom has a narrower scope in this review – i.e. having more recently reviewed narrowband access in imposing the WLR charge control – it is vital not to lose sight of the broader market context in which narrowly-defined "fixed narrowband calls" services are demanded, supplied and consumed. The role of any wholesale-level regulatory intervention can only be properly assessed in this context.

The downward trend in fixed call volumes is clear: Ofcom's data shows that volumes in 2011 were 28% lower than in 2007. More minutes are now generated on mobile networks than on fixed networks. While there has clearly been a trend away from making voice calls from fixed lines to making voice calls from mobile lines, the growth of alternative means of communication between individuals and groups of individuals is also well documented. The use of e-mail, text messaging, instant messaging alongside social networking sites will all have contributed to structural changes in the demand for traditional voice calls.

On the supply side, as well as the on-going growth of mobile and provision on a wide range of services by Virgin Media, the rapid roll-out of LLU by market entrants such as Sky and Talk Talk in recent years has seen on-going reductions in the volume of voice calls actually originated by BT. Those LLU operators have their own call servers and routing capabilities, so as the volume of LLU lines increases, the nature of any "call origination bottleneck" on the BT access network will change. In such circumstances, it is unsurprising to observe significant reductions in the volume of CPS-based origination traffic overall.

In turn, as competition has emerged and demand has changed, the way in which voice services are marketed to and purchased by customers has changed. Customers buy more packages of calls compared to individual minutes and are buying more bundles of communications services including standard access lines, broadband access and pay TV services alongside the ability to make voice calls.

Ofcom obviously needs to go through a process of defining markets and assessing market power. But stepping back from the potential complexities of this for now, it is informative to consider the extent to which the existing wholesale remedies in the previously defined "fixed call origination" market are actually underpinning this competitive framework and serving to promote the interests of consumers.

As things stand, BT is obliged to provide a CPS-based call origination service to any CP who requests it and to provide it on charge controlled and non-discriminatory terms. Among other things, this requires BT to ensure that its retail customers have the ability to choose to route their calls through a CPS "calls only" provider. This introduces an asymmetric requirement on BT at the retail level compared to other retail market players even though no SMP has been found at that retail level. BT's competitors – whether mobile, cable, MPF or even WLR-based – have no obligation to enable their customers to have a choice in how they route calls once they have made contractual decisions to take other communications services. Requirements on BT no longer, in our view, serve to facilitate or enhance effective competition in the supply of calls and are likely, if anything, to undermine BT's ability to compete on a level playing field with these retail competitors. Furthermore, wholesale level constraint on the terms on which we provide any call services to CPs fail to reflect the changed nature of the market and constrain our ability to innovate and package wholesale services to meet customer needs.

This response sets out our initial views on the questions in the Call for Inputs. We look forward to contributing further ideas and evidence to help Ofcom formulate its proposals to be set out in the formal consultation process later this year.

Responses to Ofcom's questions

Scope of the market review

Question 1: What are the main issues we should examine in this market review?

The data from the Call for Inputs document and other Ofcom research clearly shows that competition in this market is vibrant. Consumers have a plethora of choice of communications services, over many different access technologies, and from a wide diversity of suppliers. Much of the regulation now in place is not proportionate any longer given the developments in market dynamics and consumer buying behaviour over the last 3 years.

BT asks that Ofcom should take full account of the increased competition BT Wholesale faces in terms of call origination that has significantly changed since Ofcom's last market review. We urge Ofcom to review the impact of the following constraints that impact BT:

- the influence of fixed-mobile substitution and the constraint that mobile services provide on fixed calls has increased as the number of mobile devices has increased and mobile call minutes are now greater than fixed minutes, with the price premium between fixed and mobile call origination continuing to fall,
- the constant introduction of new highly featured mobile devices (including smartphones, iPads), the reduction in mobile rates and resulting erosion of the price premium between fixed and mobile call origination, have influenced the level of fixed-mobile substitution and increased the constraint that mobile services provide on fixed calls
- the growth of fixed line competitors to BT through MPF and cable services,
- VoIP call volumes continue to be a constraint on fixed call origination, especially in the business sector,
- the growth of non-voice electronic services such as e-mail and instant messaging are increasingly a substitute and act as a constraint on call origination,
- the phenomenal growth in text messaging over the last few years has had an impact on calls from fixed lines,
- finally, call origination SMP remedies such as CPS and non-discrimination act as an undue constraint on BT.

With respect to Ofcom's review of appropriate remedies, BT strongly believes that CPS/IA as a remedy for call origination SMP poses an undue constraint on BT and distorts competition in the retail sector, as BT cannot compete on a level playing field with other retail providers that do not have to provide CPS/IA. These remedies have been in place since the European regulatory framework was established. Originally seen as a driver for competition, these services are now in decline and no longer necessary. Today, competition in the provision of calls services is driven by a number of commercial models and the least significant of these is the "calls only" provider utilising CPS on a BT Retail line.

The effect of the current regulatory structure is actually to place BT at a disadvantage in competing in the market place –

- (i) we face the risk of losing calls and any associated incremental revenue from retail customers when our competitors do not. This asymmetry is not justified. Consumers now have a lot more choice, such that downstream competition would not be skewed if "CPS only" were deregulated.
- (ii) non-discrimination rules mean we can't be as flexible in constructing bundled solutions at the wholesale or retail level as our competitors. The current ex-ante rules on pricing restrict BT's freedom at the very least by creating regulatory uncertainty about the extent of pricing flexibility that could be allowed without being considered "undue" discrimination. Greater clarity and flexibility here would be pro-competitive and good for consumers.

While we understand Ofcom's desire to consider the calls market separately from lines, the regulation of the two is intertwined and changes in access competition will necessarily affect calls. As well as a significant growth in MPF-based services, mobile continues to dominate fixed services in terms of total volumes.

Question 2: Are there particular problems or issues in these markets that this review should address? Where you identify a problem, please explain why you believe regulation to be an appropriate response?

We address the main issues in the markets that this review should investigate in more detail in response to Question 1.

More generally, the evidence shows that these markets operate efficiently and that competition is effective in delivering choice, quality and value for money to consumers. The trend over recent years has been for Ofcom progressively to deregulate various aspects of the wholesale and retail narrowband markets. This has succeeded in enabling further flourishing of competition, with consequent benefits to consumers. BT believes that this trend should be continued.

Retail Markets

Question 3: What are your views on the current state of competition in the market for retail narrowband services in the United Kingdom (excluding the Hull area)? How do you think this might change over the next 3 to 4 years?

We agree with Ofcom's analysis set out in its Call for Inputs that the growth in services provided by LLU-based providers (in particular those using fully unbundled lines) over the last three years has

had a significant impact on the competitive landscape in the wholesale call services. There are some parallels to the developments observed in the Wholesale Broadband Access review where Ofcom found that BT did not have SMP any more in areas where a sufficient number of LLU- and cable-based providers were present.

The increasing degree of competition in the market overall is also reflected in the declining retail costs of residential calls as illustrated in Figure 3.2 of Ofcom's Call for Inputs.

The way in which consumers purchase calls and other related communication services has also changed over the last three years and has affected the strength of competitive constraints on the calls market. In broad terms, the marketplace for consumers is evolving in the direction of competition for the provision of a cluster group of services. The primary products are predominantly Pay TV and broadband, with fixed voice largely a free or very low cost addition to either or both of these. This puts additional pricing constraints on voice services sold separately, as it is generally not possible to distinguish between customers that are only interested in calls services on their own and customers that would be willing to substitute a single voice product for one that is sold as part of a bundle. The provision of dual, triple and quadruple play bundles is growing sharply for consumer services.

Furthermore, the volume of fixed voice minutes continues to decline, while other forms of internet-based communication, including email and VoIP (particularly unmanaged service) are being used by increasing shares of consumers (as illustrated in Figure 4.3 of Ofcom's Call for Inputs for VoIP services).

CPS and IA are in significant decline not just across the BTR base but also from derived WLR access. CPS volumes are below 40% of the peak in August 2006 (>).

There is a declining market for the provision of voice-only service. Even so, there are many suppliers operating in this market and competition is strong for voice-only provision as well as part of bundles.

The growth of packaging will continue and suppliers will continue to compete on price to win customers. It is likely smaller players will enter the market, diffusing any market consolidation which might happen in future. Where Fibre To The Premises (FTTP) becomes available we expect retail CPs predominantly to market bundles that include voice services as part of a broader range of broadband and content services.

In the business market, fixed narrowband minutes are declining as many alternative communications methods are evolving, with Mobile, SMS, email, VoIP and unified communications (UC) solutions now being adopted. This is putting pressure on unit costs as volumes fall, as significant elements of the cost base are fixed. Price pressure is fierce as the business market has a multitude of players competing for customers, from large multinational CPs who support their customers in all country markets they operate within who are vertically integrated network operators & retailers, to small resellers who will compete aggressively for the local SME customer base with integrated solutions, cross-subsidising profits from many different product ranges to provide a competitive whole deal solution and price. Retail calls prices for most players are therefore driven more by competitive market pressures than directly by the level of wholesale input costs.

Customers are adopting solutions that are more integrated with their business processes than ever before as ICT & telecommunications increasingly come together. This unified communications approach is being adopted fastest by the larger businesses that are able to dedicate the resources necessary to implement such changes. Smaller businesses are more likely to be adopting VoIP

services as they seek to be more efficient with their communications and look to gain advantages from VoIP's hosted services. For many smaller businesses a mobile-only solution is extremely attractive as many are mobile businesses by nature. The ability to integrate a non-geographic number to a mobile solution has removed one of the major barriers to mobile-only adoption: the perception of being a transient business if there is no fixed line associated with it.

The move away from normal narrowband service is usually triggered by an event, e.g. a site move, a business takeover, new management. These occasions are driving adoption of solutions that do not embrace narrowband service in the way they have in the past. Businesses moving to a new site are very receptive to the use of VoIP as it can allow retention of otherwise out-of-area numbers. Mobile-only solutions become more acceptable solutions as numbers need to change anyway. Adoption of VoIP and SIP trunking by business is now gathering pace as BT have launched SIP trunking services. At the moment, around one customer a day is formally seeking guidance on the costs of switching to a SIP solution. Businesses of all sizes are looking at how SIP and VoIP can better support their business needs for cost and functionality.

Question 4: What are your views on the state of retail competition in the market for retail narrowband services in Northern Ireland?

BT agrees with Ofcom that there have not been any significant changes since its last review that would require it to change is previous approach. BT believes that the geographic market at the retail level for consumers and businesses should be assessed on the same basis as the rest of the UK noting that SPs do not distinguish Northern Ireland specifically in their offerings. Additionally, the provision of wholesale inputs is on the same basis across the UK. This does not mean however that an element of geographic variation is not present at the retail level as the take up of LLU and the cable network are not UK-wide and these form a differentiator for the provision of retail bundling.

Question 5: What are your views on the state of retail competition in the Hull area?

We do not have anything to add here.

Wholesale Markets Definition and SMP

Question 6: To what extent have changes in wholesale charges (such as for wholesale call origination and termination) affected the pricing of retail services, including line rental charges, number of bundled minutes, bundle composition and call prices? Please distinguish between residential and business packages where appropriate.

We do not consider it is straightforward to see how changes in wholesale inputs translate into retail pricing as the structure of retail prices has been a much more important factor than the level of prices (at the market level) in terms of the development of bundles and unlimited calling plans set at fixed fees. This is true for businesses as well as consumers. In general the decline in the volume of minutes originated across fixed networks and the promotion of packages more generally with fixed minutes (including across mobile networks) have been the key driving forces. At the level of the individual SP, the change in wholesale call inputs will translate into the relevant cost of supply and affect the competitive offering directly.

Question 7: Do you consider there has been a sufficient increase in the competitive constraint from mobile and/or VoIP on wholesale call origination since the last market review such that they should now be included in the same relevant market? Please distinguish between the direct and indirect constraints from each where appropriate.

We welcome Ofcom's intention to reconsider as part of this review the extent to which the competitive constraints from mobile and/or VoIP on wholesale call origination have increased and whether they should now be included in the same relevant market.

The data quoted in Ofcom's Call for Inputs show clearly the continuing increase in mobile and VoIP usage. The majority of the UK population has an immediate choice, on a call-by-call basis, whether to make a call using their landline, mobile phone or internet connection. This means that, whether or not Ofcom finds to them to fall within the same market as defined through a SSNIP test, these services represent strong competitive constraints on fixed call origination services.

We believe that mobile provides a general constraint for almost all customers both business and residential and that VoIP is an additional source of constraint for the high proportion of consumers taking a broadband service. Since the last market review in particular, bandwidth speeds have increased sharply and any argument that the quality of an unmanaged service is inadequate to provide a competitive alternative against PSTN becomes less tenable as time progresses. Similarly, business customers are seeking a mixed portfolio of UC, VoIP and traditional voice services to meet their requirements, and the pricing of IP-based services increasingly has an impact on traditional fixed voice pricing in the business market.

Question 8: As the deployment of LLU has increased, should services provided over LLU be considered in the same relevant market as wholesale fixed call origination services provided by BT?

We believe that LLU has an impact at both the retail and wholesale levels which both need to be taken into full account and that voice services over LLU are in the same economic market. The rapid growth of operators who take full LLU means that more and more end users take their voice service over MPF as opposed to WLR. Whilst the access component of such voice provision is considered in the WLA and WBA market reviews, at the retail level, it is clear that more and more end users take both voice and broadband service from the same supplier, and that it is becoming increasingly less common for end users to use different suppliers. Correspondingly, the number of consumer end users taking only voice service is dwindling away to less than of the market. In these circumstances the provision of call origination over LLU clearly acts as a direct constraint on the fixed call origination services provided by BT.

In the previous NBMR, Ofcom noted that the move to LLU – which is a sunk and essentially irreversible move – could provide a constraint on BT and we consider that this is a particularly important constraint on BT at the wholesale level to supply network services across copper to other CPs and SPs.

Question 9: To what extent do you think that competitive conditions vary materially in different areas, or is fixed call origination subject to broadly similar competitive conditions across the country?

The availability of mobile calls services provides choice and competition at the national level. Furthermore, the rapid growth of LLU along with the growth of Virgin Media network has increased competition for the provision of fixed network calls services in a large and growing geographic footprint. For businesses, the provision of service across own fibre networks (including purchased dark fibre) is also highly competitive, particularly in many metropolitan areas and for example to local authorities where there is an existing cable infrastructure.

Question 10: To what extent do you think there has been a material change in competitive conditions that would impact our SMP analysis for wholesale call origination on fixed networks?

We agree with Ofcom that its SMP analysis must consider the cumulative effect of all competitive constraints, irrespective of whether they arise within or outside of the "relevant market", however defined. This is particularly important with regards to substitution by mobile phones, VoIP and other alternative forms of communications.

We believe that there has been a highly material change since the last NBMR from the factors identified by Ofcom and which impact the SMP assessment and will provide Ofcom with more detailed analysis in due course.

We have outlined some of the most significant changes in response to previous questions. In summary, these are:

- significant increase in LLU based services
- increasing substitution to other communication services, in particular mobile and VoIP; and
- the way in which consumers purchase calls as "add-ons" to other services such as broadband and/or Pay TV.

Question 11: Do you consider that individual CP's number ranges are a relevant factor in defining the relevant market in fixed call termination?

No, it is the network operator who is accountable for providing access for call termination. The holder of the associated number range is not relevant.

Question 12: Do you consider that there have been any changes in the markets for fixed call termination that would be relevant in our assessment of SMP in these markets?

We recognise that each terminating network has features of bottleneck control and likely SMP such that this regulation will for most customers need to remain in place. Where there are closed user groups (as for example reviewed in the BCMR) or where the called customer is the (at least part) paying party with a commercial interest in the call (as for example in NGN calls), then SMP designation is not appropriate.

Question 13: Does the deployment of NGNs by a number of CPs change the way we might define the markets of wholesale call origination and termination? For example, should the definition of these markets take into account the reduced number of points of interconnection that would exist in an NGN?

The existing definition of the market boundary at the point nearest the end user where signals can be exchanged is fit for purpose. It remains a matter for conjecture how many points of interconnect there will be in an NGN bearing in mind that both signalling and media have to be exchanged and not necessarily at the same location. The scale of the volume of data traffic is still evolving, so it is not clear what the most efficient number of nodes for NGN interconnect will be. For instance there could be as many as 1000 Ethernet Access Service Nodes where media could be exchanged.

Question 14: To what extent has competition in the Single Transit market changed since the 2009 Review?

There are around 450 CPs with numbers allocated to them and to whom BT sends traffic. Of these there are approximately 200 with whom BT interconnects and about 250 with whom BT interconnects via a third party. There are 44 CPs who supply the 250.

There is considerable diversity in the wholesale market. Operators who require Single Tandem Transit (STT) clearly have a choice and exercise it in what has become a competitive market.

Question 15: Do you think that conditions in the LTC/LTT market have changed materially since the 2009 Review? Please explain why.

We do not believe that the LTC/LTT market conditions have changed materially since Ofcom's review in 2009. If anything, BT's share of this market has declined and the market can be seen to be more competitive. Lerwick is still the only DLE where there is no CP interconnect, and the penetration of the major CPs has continued to grow rather than decline

Non-Price Remedies

Question 16: What general non-price remedies do you consider appropriate and proportionate to address an SMP finding (for the services covered by this review, including in Hull)? Please give your reasons.

BT's views on notifications to customers will be considered in the response to question 17. BT's views on whether CPS and IA remain appropriate remedies to a finding of SMP in Call Origination will be covered in the response to question 18. BT's views on the requirements for specific remedies on NTS call origination in the light of the on-going NGCS review are covered in the response to question 19.

Looking at the other non-price remedies available to Ofcom should BT be found to have SMP in any of the markets reviewed, we do not believe that there is a strong reason to amend the non-price remedies that are in place today. This excludes the market for Single Transit, and the remedies covered in the next few responses. The remedies that we refer to are those listed in paragraph 5.2 of Ofcom's Call for Inputs document. These are:

- requirement to provide network access on reasonable request;
- requirement not to unduly discriminate;
- requirement to publish a reference offer;
- requirement to notify charges, terms and conditions;
- requirement to notify technical information and
- accounting separation.

The current level of control provided by this list of remedies is currently working well, and there appears to be no need to change this.

It is also worth mentioning that these remedies should be applied to all Dominant Providers who have a finding of SMP, including Terminating CPs, and compliance should be enforced.

Question 17: Where there is SMP, what do you consider to be an appropriate notice period for the services covered by this review?

BT believes that a notification period of 28 days would be sufficient for services covered in this review.

As Ofcom is aware, a number of CPs have been seeking BT's agreement to a change in the contractual notice period for changes to BT's charges for those call conveyance services covered by the Standard Interconnect Agreement (SIA). This has been through negotiation at the Interconnect Product Forum.

Under paragraph 12 of the SIA BT has always had the contractual right to vary charges on 28 days' notice. This includes those SMP services where under regulation BT has to give the longer 90 day notice period. The CPs argue that they typically are required by contract with their reseller and retail customers to give 30 days' notice of changes to their charges. They argue that a 28 day notice provides insufficient time for them to consider BT's Charge Change notifications and adjust their own prices in turn leaving them commercially exposed for short periods.

BT holds that the 28 day period has been well established and in most instances pre-dates the commencement of trading of these CPs in the UK. It is also in line with the SMP notification period allowed to MNOs which has only recently been sustained by Ofcom in their recent market review of mobile call termination.

For the avoidance of doubt, BT's primary position is that its contract should remain unaltered and the SMP requirement should be not just relaxed but removed. Nevertheless, should Ofcom's review find just cause why the SMP condition should not only remain but remain at such an extreme level, then BT could reach a compromise with the CPs as a result of the Interconnect Product Forum negotiations.

Question 18: Were we to find that BT has SMP in wholesale call origination, do you consider that CPS and IA remain appropriate remedies?

We welcome Ofcom's intention to review the continuing need for these types of remedies even if SMP is still found. As Ofcom correctly identified in its Call for Inputs, the number of CPS/IA users has been declining rapidly, and competition in this market is now predominantly infrastructure-based (cable and LLU-providers), making CPS/IA an increasingly obsolete driver of competition in the calls market.

We do not believe it is appropriate to retain the obligation on BT to allow any of its subscribers to use CPS and/or IA on lines rented from downstream parts of BT. These IA, and then CPS, obligations were introduced historically as remedies to allow others to compete in the provision of calls services, but the basis for competition has moved on since then, particularly as a result of the introduction and significant growth of LLU. Retaining such an obligation at a retail level, where BT does not have SMP, is anachronistic and puts BT Retail at an unfair disadvantage relative to its retail competitors. We face the risk of losing calls and any associated incremental revenue from retail customers when our competitors do not. This asymmetry is not justified when consumers now have so much choice. Downstream competition would not be skewed if "CPS only" were deregulated.

There are now many cost-effective alternatives to IA, reflected in the continued decline in the volume of IA minutes. Mobile phone SIMs that give access to cheap international calls are very popular, and non-geographic number services are replacing IA prefix codes. Alternative technologies and new commercial models are providing viable and attractive alternatives to IA that are available to all customers, making IA unnecessary for customers to enjoy a wide range of competitive choices on a call-by-call basis.

It should not be assumed that existing remedies such as CPS and IA should be relevant or applicable to new fixed voice services, such as those over FTTP. Increasingly, voice products will be based on upstream inputs that allow CPs to fully control the voice service, using their own call server, with call origination being separated from any SMP in upstream local access markets. These products will give customers access to a wide range of competitive options for call origination, making CPS increasingly out-dated.

Question 19: If we find that BT has SMP in wholesale call origination, do you consider that specific remedies are required for NTS call origination?

We do not consider that any specific remedies are needed and reproduce below the relevant text submitted on this matter in the concurrent NGCS Consultation.

"Ofcom discovered in its analysis for the NGCS Review that the identified market failures are not a result of wholesale arrangements^[1].

However, the current regulatory regime results from BT's wholesale narrowband market position. The current remedy, the NTS Call Origination Condition, has no impact on the wholesale layer of NTS origination. Instead, it sets regulatory rules which impact the retail call origination market – a market where BT does not have SMP.

The wholesale call origination market is about to be reviewed within the Wholesale Narrowband Market Review^[2]. As part of that assessment, Ofcom will consider whether a NGCS specific wholesale remedy is needed.

We believe there is no requirement for specific wholesale regulatory intervention. Ofcom's NGCS proposal to bar bespoke SCs, coupled with BT's current obligations for the provision of wholesale call origination and end to end connectivity will provide sufficient constraint to ensure that consumers are protected."

Question 20: Should operators of TDM networks be required to provide an IP Interconnection service?

No. The provision of this service should be on a commercial basis. The decision to operate an IP network is taken by the IP network operator, and it is their business case that should incorporate the costs of interworking. Existing TDM operators have no discretion over the decision taken by the IP operator and their customers should not have to bear any additional costs as a consequence.

Question 21: If so, at how many points of interconnection should this be provided and how would this relate to the currently defined wholesale markets?

See our response to Question 13. It would be inappropriate to pre-define the number of points of interconnect, since this would unnecessarily and artificially constrain the design of NGNs, which continue to evolve in response to market demands. It is important to maintain design flexibility and let the market determine the most efficient arrangements.

Question 22: If not, what should be the arrangements for interconnection between IP and TDM networks and associated charges?

^[1] Paragraph 4.79 of Ofcom's consultation

http://stakeholders.ofcom.org.uk/consultations/narrowband-market-review-call/

In the 2009 WNBMR Ofcom defined the call termination market as:

"Wholesale fixed geographic call termination on each individual network. Call termination in this context includes the conveyance of all signals (including relevant control signals) required to terminate calls on a customer's exchange line from the first point in the network where those signals can be accessed by another communications provider."

Regulated charges apply from the market boundary. Charges for any services provided beyond the market boundary are fully competitive and subject to negotiation.

Ofcom summarised this succinctly in its statement on Fair and Reasonable Charges for Fixed Geographic Call Termination dated 27 April 2011:

"4.58 Responses to the consultation indicate that IP termination at BT's TDM DLEs is unlikely to be economically attractive. However, to the extent that such termination could be economically viable we consider that it could be reasonable to request this service within the call termination market. As IP standards for voice interconnection are still evolving, our view is that, where such IP interconnection is requested, commercial negotiation between the parties would be the most appropriate first step to agree the relevant interconnection standard in order to avoid unnecessary development costs for the terminating CP. Where agreement cannot be reached between the parties, the resolution of any dispute would need to be based on the specifics of the two parties' networks. Where an IP termination service was deemed reasonable, the Benchmark FTR would apply unless the terminating operator could satisfy the three-stage test.

4.59 If originating operators request IP interconnection at non-terminating nodes (such as interconnection at tandem exchanges or a limited number of POI) then rates, terms and conditions for services additional to the regulated termination service would be subject to commercial negotiation."

Ofcom elaborated in subsequent paragraphs – see http://stakeholders.ofcom.org.uk/binaries/consultations/778516/statement/fair-reasonable-statement.pdf

Pricing Remedies

Question 23: If we find that BT has SMP in wholesale call origination, which, if any, pricing remedy do you believe would be appropriate to address such SMP? Please explain why.

We agree with Ofcom's finding that that the market circumstances have changed significantly so that it would be appropriate for Ofcom in this review to reconsider the structure of remedies in response to any possible SMP finding.

Call Origination is subject to wide ranging competition from numerous alternatives such as mobile, LLU, VoIP, etc. that act as a constraint on BT prices. A simple *ex ante* indiscriminate price control remedy would not be proportionate nor reflect the varied service supply conditions.

Should Ofcom conclude that BT has SMP, then a safeguard cap of some design may be appropriate which still allowed BT the flexibility to respond in a rapidly evolving marketplace.

Question 24: If a charge control remedy is appropriate for call termination, do you agree that we should follow the 2009 EC Recommendation and cap FTRs at pure LRIC?

Whilst we understand Ofcom's obligation to give the utmost consideration to the 2009 EC Recommendation, there are not sufficient benefits to justify changing from the methodology used in the previous control.

Question 25: The 2009 EC Recommendation states that the core network cost model "could in principle be Next Generation Network (NGN)-based". Do you consider this to be an appropriate approach to cost modelling for this review?

Yes, but to reflect the costs of an efficient operator fairly and reasonably, many aspects will need to be taken into consideration and thoroughly debated e.g.

- The apportionment of costs where assets are shared between services PSTN is the
 primary voice service and has strict quality of service requirements which have to be
 met. Some 150kb is required to emulate PSTN over IP as opposed to 64kb in legacy
 networks. Peak usage has to be accommodated to the same high standard and resilience
 is a prerequisite, all of which requires dedicated resources.
- The transition from legacy to NGN networks requires a lengthy period of parallel running and this needs to be taken account of in the modelling. Also, migration costs are potentially a major barrier to change and any charge control needs to take them into account.
- A critical issue to be debated is where hypothetical NGN based termination rates would apply from.
- The assumptions made about the number of players in the hypothetical market will need to be decided. We assume it will be 4 players with equal shares as in the MTR model.
- Assumptions will need to be made about the network topology and how a hypothetical model is related to the existing node structure.

Question 26: What in your view would be the best way to calibrate such a model, given that BT does not yet operate a national NGN?

A sustainable model of the legacy network will be required, not just to calibrate any hypothetical NGN model, but also to underpin any regulated charges for call origination. To maintain investment incentives, it is essential that a charge control, and any calibration of a hypothetical model for call termination, takes full account of the real costs of sustaining the existing service.

Question 27: The 2009 EC Recommendation recommends the use of economic depreciation "wherever feasible". Do you consider this to be an appropriate approach to cost modelling for this review?

Yes – The use of economic depreciation has some merit providing realistic parameters are used. Asset lives for NGN equipment tend to be significantly shorter than their legacy counterparts. This needs to be reflected in the modelling.

Question 28: With termination rates set on the basis of pure LRIC, from which other services should common costs previously recovered from fixed call termination now be recovered?

Should Ofcom decide to set termination rates on the basis of pure LRIC, common costs should be recovered from other services, regulated and unregulated, sharing the same common infrastructure. To avoid distorting the incentive to invest in the network and systems, by BT and others, it is

important that all common costs that contribute to the provision of a voice service are recovered from customers purchasing those services.

Question 29: Question 29: How soon would stakeholders consider it appropriate and practicable for FTRs to be aligned to pure LRIC?

In the case of FTR, the most appropriate approach is to use a three year glide path. Three years is the period of the charge control, and whether Ofcom adopts pure LRIC or not, setting a three year glide path is consistent with Ofcom's current practice.

Reducing FTR to the LRIC level over the three year glide path will help avoid price shock. Industry will need time to adapt to ensure the consequent changes are fairly passed on to end users. It also has the merit of encouraging dynamic efficiency improvements.

Question 30: Do you agree that we should follow the 2009 EC Recommendation and regulate the termination rates of all fixed CPs at a symmetric level?

Yes.

Question 31: Is it more appropriate to achieve symmetry of fixed termination rates by imposing a 'fair and reasonable' condition or a charge control on all providers with SMP in fixed call termination?

BT believes that the fairest way of setting prices is to have a single price applicable across industry. This could be achieved by requiring CP's to match the BT price for call termination.

The approach assumes "far-end handover" where calls are delivered to the BT network at the Local Exchange (or equivalent point of the CP network closest to the end user.)

Question 32: Are different "time-of-day" rates likely to be important in setting efficient wholesale call rates for call termination and origination during the period from 2013-2016?

Although it remains desirable to reduce peak loads on the voice network, as fixed line call charges have continually fallen, the relatively low price has weakened the scope for price differentiation to influence the call demand patterns. However, business users predominantly buy at daytime rates whilst consumers tend to make more calls at evenings and weekends, and CPs have developed their calls packages to reflect this pattern. The elimination of different ToD rates would be likely to disrupt their business models, and create significant transition costs, for no good reason, which would ultimately be economically inefficient and therefore bad for end customers.

Ofcom might be considering this change in order to be consistent with the MTR regime, where a price ceiling was introduced in order to prevent "flip-flopping". BT has never flip-flopped fixed termination rates and nor do we think has any other CP, so this is not an issue in the fixed voice market. (Notice period requirements and the need to change complex billing systems make frequent price changes impractical.)

Question 33: Is there any reason not to adopt a maximum ceiling for regulated wholesale call conveyance rates – similar to our approach in the regulation of mobile call termination?

BT sees no particular advantage in changing a charge control formula that has been working without notable problems since 1997. However, we are not averse to moving to a new method and would

welcome discussions on how the alternative would deal with multiple charges in a basket, price notification obligations, RPI publication dates, and other details of implementation.