

***“Mobile citizens,  
mobile consumers  
Adapting regulation for a  
mobile, wireless world”***

BT's response to Ofcom's  
consultation of 28 August

6 November 2008

BT welcomes comments on the content of this document.  
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## **Executive Summary**

Ofcom's comprehensive review of the mobile sector reveals an industry in which competition, investment and innovation at key points across the value chain are restricted. Ostensibly competitive, with five major network players, the market structure has facilitated the relative languor we witness in the sector today, leaving it at risk of failing to deliver the improvements its stakeholders will expect tomorrow. BT observes that:

- there are high barriers to entry at every point in the value chain;
- the existing participants in the sector are therefore able to focus on competing amongst themselves without having to be concerned about truly innovative and game-changing competition from outside their circle;
- the way in which they compete has therefore become ossified – competition is centred on the high street (where the large chains of shops may themselves be seen as barriers to entry) and has led to an excessive and expensive focus on handsets and churn instead of lower prices and better and more innovative services;
- so-called 'virtual operators' do not solve the problem: their margins are controlled by the mobile network operators so that they become channels for the mobile network operators rather than competitive threats to them;
- the position is further complicated by the fact that the UK mobile network operators are parts of global businesses that interact with each other in many countries, and this may have had the effect of discouraging the type of disruptive market action that characterises a vibrantly competitive market.

As a result, BT believes it is time for an urgent in-depth review of the structure of the UK mobile industry to assess whether it is delivering real choice for customers. This should include a thorough examination of the case for mandated wholesale access to the mobile networks and their facilities, and what role mobile networks should play in the delivery of other benefits to citizens throughout the UK. A glimpse at what has been achieved over the last few years in relation to fixed broadband services, following the outcome of Ofcom's thorough review of the fixed sector, provides a real example of what can be achieved if Ofcom and industry get together behind a shared vision of what a competitive sector should look like.

Equally importantly, Ofcom must build upon its acknowledgement that fixed and mobile operators compete head-to-head in today's market place. In recognition of this convergence, we urge Ofcom to redress the balance of regulation across the whole of the communications market by releasing BT from the out-dated regulation that now merely exacerbates the competition problems we see in the mobile sector.

## **Introduction and Overview**

Ofcom's assessment of this critical sector of the communications market is timely and comprehensive and BT is pleased to make this contribution to the debate. As the consultation amply demonstrates, the market place has changed significantly in the last ten years, with mobile services having now reached parity with - or indeed surpassed - fixed services by most relevant measures. Ofcom is right to review how well the sector is performing in order that the communications market as a whole can continue to deliver the best of what its stakeholders expect.

### **Competition and Innovation – key features of a well-functioning market**

It is illuminating to reflect on what Ofcom identified as the characteristics of a well-functioning market when it carried out its Strategic Review of the fixed sector in 2004-2005. It found a need for keen prices, wide availability and reliability of basic voice and data services, but at the same time a thirst for innovation, range and choice in new services, which in turn would raise the importance of the supporting infrastructure. Ofcom characterised the problem for citizens and consumers as being “not what the sector is delivering today; it is what it will be able to deliver tomorrow” and its own challenge as “how the industry's achievements today can be sustained and enhanced in the future”.

Ofcom's assessment of the mobile sector has identified very much the same kind of problem: the industry is delivering relatively good products, choice and value to citizens and consumers today, but the prospects that it will continue to do so are uncertain. As in the fixed sector four years ago, while competitive pricing in the mobile sector will remain a key measure of success, rapid provision of new mobile services is increasingly important, as is greater functionality and flexibility in the products available in the market. In the fixed sector, Ofcom found a low degree of competition in certain parts of the value chain and a corresponding lack of innovation which required regulatory measures to correct. The evidence Ofcom has gathered highlights similar concerns in the mobile sector.

Ofcom's study clearly shows:

- mobile network operators are at the centre of the value chain;
- mobile network operators strongly influence all parts of the value chain;
- mobile network operators retain most value in the value chain;
- mobile network operators have increased their retained value over the past five years;
- vertical integration is a defining feature of the sector;
- the scope for entry at different levels in the value chain is limited;
- virtual operators (MVNOs) are largely niche players;
- few new network operators have entered the market;
- mobile network operators co-operate in technical and other areas.

And in most cases, these features and trends appear to be increasing or intensifying.

These pose critical challenges to the sector and require addressing. And the burden of proof (on those who claim this is a well-functioning market), is all the higher given the strong market position these features imply for the mobile network operators - and Ofcom recognises the sector is “highly concentrated” in HHI<sup>1</sup> terms. Four or five large operators may appear to indicate a competitive market, but whether this is the type of competition that delivers the greatest

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<sup>1</sup> Herfindahl-Hirschmann Index - see paragraph 3.72 in the consultation document.

benefits to consumers and citizens, in terms of innovation and developments, is the real test – in tomorrow's world as well as today's. Ofcom might ask itself: *where are the different solutions for an increasingly diverse set of consumers? Where is the range of truly differentiated services from a diverse set of sustainable suppliers? Where are the bold customer offers equivalent to the game-changing 'free broadband' offer in the fixed sector.*

Ofcom's view, with which BT tends to agree, is that "the best and most robust spur to innovation is...competition" – a principle which indeed underpinned Ofcom's approach to the fixed sector in its 2004/5 Review. As we demonstrate in the remainder of our response, the barriers to such competition in the mobile sector are too high. In the 2004/5 Review, Ofcom drew attention to the argument of Cable & Wireless in the same context:

*"the ability of BT to weaken network competitors' ability to construct fit-for-purpose, fast-to-market innovative products for their customers means that retail operators are limited typically to competing primarily on price rather than innovation in services".*

From the evidence in Ofcom's consultation and our own experience, it would appear that a very similar situation exists in the mobile sector today, with the network operators controlling the pace and nature of any new services.

### **The future is a converged one**

There is another important facet for Ofcom to consider. Ofcom's analysis focuses almost exclusively on the mobile sector alone. Ofcom has explained why it has chosen to address the fixed and mobile sectors separately, with formal reviews of the fixed narrowband sectors planned for next year. This admittedly makes the complex task of market analysis more manageable. But the convergence of fixed and mobile services means that dealing with the two sectors in isolation is no longer tenable, even if this makes Ofcom's task more difficult. Evidence shows that the underlying technology has ceased to be a significant factor in purchasing decisions – it is functionality and price that determine what customers buy. And it is this agnosticism which drives the development of the market across both fixed and mobile technologies.

Any question of whether the mobile sector is performing well enough – and what role regulation should play, if any, in addressing any shortcomings – cannot be answered without determining what effect any decisions will have on the communications market as a whole – fixed and mobile (and intermediate). And the prominence in the mobile sector of the network operators cannot be taken in isolation from their increasing role in the fixed sector, particularly in broadband services. In the fixed sector, of course, BT is currently subject to retail-level regulation which restricts it from competing on an equal footing with the mobile operators. When coupled with the barriers to entry into the mobile sector, and in the context of purchasing decisions made on a technology-agnostic basis, there is a real risk that BT and other fixed providers will be at a disadvantage compared to the mobile network operators in a converged market place, unless Ofcom takes steps to redress the imbalance in order to recognise the reality of today's market place.

A strong recognition of convergence underpins BT's approach to all aspects of Ofcom's review and informs the majority of this response. This is where we start.

## **1. One market – time for a real step-change**

Ofcom asks “how is the market functioning?” But Ofcom cannot find an adequate answer by looking at the mobile sector alone. There is no longer a discrete ‘mobile market’. This is not semantics; this is convergence.

People who buy communications services, and those who sell them, no longer differentiate between the technology used (indeed, the words ‘mobile’ and ‘fixed’ are hardly ever used). The market is now all about what the service is, what features are included, and how much it costs. Today, offerings are normally a bundle of call minutes, texts, broadband, and often television too, with no reference to whether these are fixed or mobile or both. BT’s own research indicates that customers view fixed and mobile technology as interchangeable, regardless of any cost differential. This is the converged market – the market Ofcom has the duty to oversee – not just ‘fast becoming a reality’ as Ofcom’s Chairman said in his Annual Lecture last month, but already with us.

We take this opportunity to highlight some of the statistics that illustrate some of the dynamics in and between the two sectors:

- 51% of average household telecoms expenditure goes on mobile services;
- 40% of voice call minutes are now made from a mobile phone compared to 25% in 2002 (and BT’s share has fallen to under 30%);
- 81% of UK households have a fixed and a mobile phone, with only 7% being fixed-only;
- 70% of people with both a fixed and mobile phone say they use their mobile to make some calls even when at home;
- 10% with a fixed line at home say they never use it - they always use their mobile;
- 32% of those who use mobile broadband use it instead of a fixed internet connection;
- 44% of adults use text on a daily basis (compared to 36% who use the internet daily);
- 36% more texts were sent in 2007, twice the rate of growth in voice minutes.

BT’s own figures show fixed-to-mobile minutes falling faster than all other call types over the past two years – in part due to mobile operators selling contracts with increasing amounts of inclusive minutes, leading in turn to increased pressure on fixed minutes as consumers use mobiles more to use their “free” minutes. Mobile minutes are expected to overtake residential fixed minutes by next year.

In this converged market place, it is necessary to assess how the mobile sector is performing. But in order to form a meaningful basis for policy decisions, such an assessment cannot be done in isolation from the rest of the market. Ofcom recognises in this Assessment that much of the current fixed regulation is predicated on a distinction between fixed and mobile services. However, the reality in today’s market is that fixed and mobile compete (to a greater or lesser degree) head-to-head. Ofcom’s scenarios (in Section 7) describe some of the circumstances in which fixed and mobile services compete in this way, all of which are already happening and accelerating. BT hopes that this valuable insight into the way the whole market operates will be applied in equal measure in Ofcom’s forthcoming review of the fixed calls and lines sector, with resultant deregulation, in order to avoid the risk of stifling competition and innovation across the whole

market. The UK needs thriving competitors across the converged market to invest in the infrastructures of the future.

Ofcom needs look no further than the apparent disparity between the unregulated on-net and regulated off-net termination rates charged by the mobile network operators, to find evidence that competition is being distorted across the fixed and mobile sectors. There can be no doubt that fixed and mobile providers compete head-on to meet the converged communications needs of businesses. And yet mobile operators seem to be able to offer customers on-net mobile origination and termination services at prices which are below even the regulated (and cost-based) off-net termination rates that other operators are required to purchase from them. In a converged market, all operators must be allowed to compete on an equal footing. Of course, in this case, it is not sufficient for fixed operators such as BT to be freed from regulation while off-net mobile termination rates remain high, and it may be that nothing short of non-discrimination requirements on the mobile operators (as happens in other parts of Europe) will redress the balance and enable the market to function properly in the best interests of end-customers.

For Ofcom, the risk of not fully recognising the unified nature of the market is more immediately a concern for its narrowband review than it is for the mobile sector. But the two cannot be dealt with separately. Policy decisions which appear correct in one part of a market may turn out to be mistakes when viewed over the whole market. The fierce cross-currents that operate across the sectors are observable and undeniable, and at the very least, convergence is 'fast becoming a reality', as Lord Currie said, and taken fully into account in any forward-looking assessment.

## **2. A well-functioning market sector?**

As we set out in our introduction, the mobile sector does not exhibit the full range or depth of features one would expect of a sector functioning at its best. These features might include:

- low barriers to entry
- significant product differentiation
- a high degree of innovation
- a wide range of service offerings
- a variety of different business models
- low consumer prices
- easy switching between networks
- easy switching between providers
- easy switching between services
- changes over time in market shares
- rapid evolution in technology and applications
- robust competition at multiple points across the value chain

While some of these features are apparent in the mobile sector (for example, low call origination prices) most are not. Today's mobile sector is characterised by an increasingly homogenised set of offerings from the major players, with the invigorating influence of the late-entrant '3' (Hutchison H3G) having now largely dissipated.

Many of the features missing today did exist in the market in the recent past, and indeed helped to bring the sector to the strong position we see now. The historical growth in mobile subscribers was brought about by cost, size and power reductions in the underlying standardised technology (making personal handsets more usable and affordable); greater network coverage and service availability;

more attractive customer propositions, including pre-pay packages; as well as the unexpected and unpredicted popularity of SMS texting amongst customers.

As we stated above (from Ofcom's earlier review of the fixed sector), the key question is not what has been achieved in the past, but what is necessary in order to build upon those achievements to ensure continued and enhanced success. Today's mobile sector seems to display few of these signs of past vigorous competition. It is now characterised by "me too" business models and customer propositions largely involving ever larger bundles of voice minutes and SMS text messages, with mobile broadband recently being added to the overall package. Although the UK is, on some measures, supposedly "the most competitive" mobile sector in Europe, it does not have the lowest prices nor does it lead in terms of innovation. MNO and MVNO service providers have largely stable market shares, as seen in Figure 31 on page 32 of the Consultation, with the four largest mobile network operators significantly outstripping the others players by a large margin (Figure 30 on page 31).

There would therefore seem to be a *prima facie* and urgent need for Ofcom to reinvigorate the sector and stimulate further market entry and innovation to the benefit of end customers and the wider market. One way of doing this, as successfully demonstrated in the Telecommunications Strategic Review in 2004/05, might be through the facilitation of additional competitive entry into the market at different points in the value chain, where there are perceived to be existing and continuing bottlenecks and/or pinch points which operate to the detriment of customers and the wider economy.

## **2.1 The Mobile Sector Value Chain**

The Analysys-Mason report (Annex 9 in Ofcom's consultation document) provides an illuminating view of the mobile industry value chain, comprising seven links from network equipment vendors through to distributors. Their analysis includes a "five forces" account against each link in the chain, assessing the bargaining power of suppliers and of customers; the threat of market entry and of replacement products; and finally, the degree of competitive rivalry. The conclusion, as highlighted in the main body of Ofcom's Consultation, is that the mobile network operators exert a high degree of pressure on suppliers; that network operators' customers have limited power; that a few device vendors have a strong position; and that there are high barriers to entry for new players.

Of the seven links in the value chain, the UK mobile operators are particularly active in the Network Operator (5 out of 5 participants), Service Provider (top 5 out of the 7 largest participants) and Distributor (4 out of 6 largest participants) segments. They have significantly increased their retained revenue share across the value chain over the past five years, most notably at the expense of mobile service providers, device vendors and network equipment vendors.

It is worth noting at this stage that the UK's mobile operators consist of large, multinational companies active (to varying degrees) across 50-70% of the seven links in the value chain. Most obviously as network operators and service providers, they also act as distributors, site owners and in some instances, even as own-device vendors. These companies operate in a global market and ecosystem and are therefore in a position to bring their market power to bear on different points in the value chain – for example, in their procurement activities, they will wield significant purchasing power through their multinational operations.

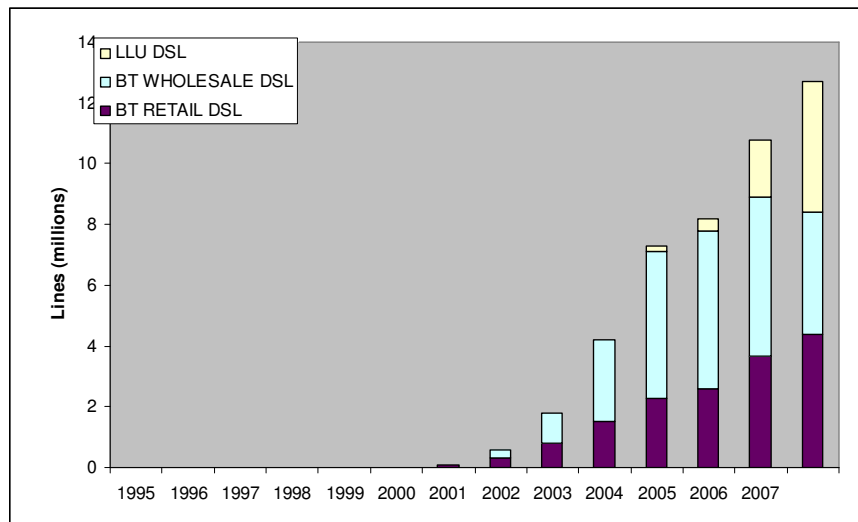


The UK mobile operators' strength across the value chain places them in a position of exceptional market influence in terms of its pace and direction of evolution. They are able to leverage their strength in ownership of, and access to, the network infrastructure and spectrum "pinch points" and "bottlenecks" as well as being allowed to determine who they allow to enter the market as MVNOs (to compete with their service provider organisations) and on what cost and service level agreement terms, as well as with whom they interconnect. When these strategic and behavioural barriers are added to the other main obstacle to market entry – spectrum – it is no surprise that Ofcom describes prospective market entry as "challenging".

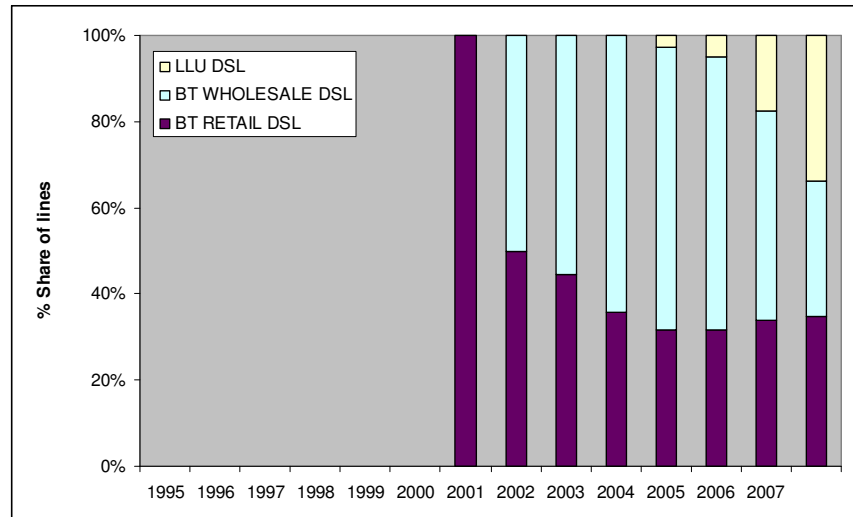
## 2.2 A contrast with the Fixed Broadband Sector

A short detour around the market features of one part of the fixed sector provides an instructive contrast.

As a result of the Telecommunications Strategic Review carried out by Ofcom in 2004-5, regulated access and prices for specific wholesale elements or components (which are charged at the same price for wholesale and "own use" customers) was mandated, combined with an obligation to provide specified wholesale products to any legitimate organisation that requests it. This has resulted in a dramatic increase in the number of connections and in the market share of alternative service providers, as shown in the graphs below. In addition, this growth in competition has been accompanied by increased customer choice through innovations in customer propositions and business models.



**Figure 1:** Broadband line growth and share (source: BT)



**Figure 2: Broadband line share (source: BT)**

The comparison between the UK mobile market and the UK fixed broadband market is stark:

- In the case of fixed (copper-based) broadband, with regulated, obligated access to key infrastructure components at regulated wholesale prices has led to alternative service providers taking about **70%** market share in 4 years (2002-2005);
- In the UK mobile market, where network operators are in a position to control competitive entry, alternative service providers have won about **8-10%** market share over a similar timeframe.

The availability of different wholesale copper products has also allowed service providers to utilise a range of different options depending on geographic locations and/or customer densities. They are able to employ different wholesale products to enter the market and transition from one solution to another as their business develops - for example moving from wholesale DSL to a fully unbundled wholesale LLU product.

This flexibility has allowed service providers to achieve different levels of control over their businesses and consequential customer relationships, which in turn has enabled them to deploy different customer propositions in the market place and innovate on services and propositions. In addition, customers of fixed broadband also have a choice of competitors using different wholesale access technologies and platforms, such as cable television.

### **2.3 Future development of the Mobile Broadband Sector**

Ofcom posits the prospect that mobile broadband “might prove as effective a catalyst for innovation and market development as fixed broadband was in its own context” (paragraph 3.102). Ofcom believes it is too early to judge this question and sees considerable uncertainty about the role of mobile broadband. With the recent huge growth of mobile broadband, we believe that Ofcom cannot wait any longer to answer that question.

The development of fixed broadband services certainly created “tremendous value for consumers and for suppliers of content and applications” (paragraph 3.103), but it could be argued that much of this value is owed as much to regulatory intervention as to market forces – as

we set out above. And more importantly, as the fixed and mobile broadband markets converge, the mobile network operators' prominence in the mobile value chain may be a significant dampener of the sort of competition and innovation witnessed in the fixed sector and which is so necessary for rapid and robust market development.

Indeed, if the fixed broadband sector is a good benchmark, swift intervention in markets once they reach an established stage, can lead to a spurt in growth in the number of vibrant service providers offering innovation and choice to end-customers. Intervention might therefore be contemplated to facilitate and guarantee wholesale component accessibility at predetermined and equivalent service levels for all service providers, including those tied to the incumbent infrastructure owners and operators. Waiting to see how the market establishes itself and matures before intervention may simply lead to the outcome of a market dominated by a small number of powerful multinational companies, which dictate terms (and even accessibility) of market entry to other prospective service providers. The current mobile market is a good indicator of the implications for the alternative service provider community, and as a result, the end-customer. The 90% share of the current mobile narrowband market sector may simply be leveraged across to a future mobile broadband market, preserving the current operators' hegemony and stifling innovative business models and propositions to end-customers.

Specifically, BT believes that, in order to encourage competition into the mobile broadband sector, Ofcom should learn from the example in narrowband. That is, it should reserve wireless broadband spectrum for new entrant companies, and mandate national roaming onto existing networks for new entrants. This was the position adopted in respect of H3G and led to a fifth operator gaining a foothold in the sector. However, as H3G's c.5-10% market share shows, it may be that more intervention is needed in order to secure a fully competitive sector.

### **3. Exploiting the potential**

As outlined in Section 2 above, there are signs that the mobile sector may not be functioning as well as it might, nor its potential fully exploited. And with convergence of the fixed and mobile sectors, any problems in one sector are likely to impair the overall functioning of the market as a whole. So, while we share Ofcom's predisposition against regulatory intervention, we would like to suggest some areas in which regulatory action in one form or another may deliver greater benefits. The benefits would be predicated on the appetite of alternative service and content providers to seek to offer customers innovative services such as location-specific applications and content. We would urge Ofcom to examine how this type of action could help it meet the challenge of ensuring the industry sustains its achievements and enhances them in the future. We will be happy to explore these further with Ofcom and the Industry.

The most significant bottleneck after spectrum is that of access to networks for conveyance, roaming and associated facilities. The current UK MVNO model leaves this to operate at the commercial level whereas cost-based network access would provide both existing players and potential entrants with incentives to compete at more than the superficial level available today. To be fully effective, such cost-orientated roaming would need to encompass roaming between local area wireless services and the mobile network operators' wide area networks.

One key bottleneck that is increasingly being invested with greater value, and hence is becoming more of a barrier to entry, is the mobile SIM. SIMs, which are the main building-block in service authentication, are network-specific and under the control of the mobile network operators. Service authentication therefore remains limited to the network controller, with corresponding service flexibility therefore also severely restricted. With increasing moves towards investing the SIM with the capability to be the default 'vault' for secure storage of identity, money etc, it is being recognised that the 'keeper' of the vault will have a crucial role. This role might best be taken by a non-MNO – this is so-called Trusted Services Management (TSM). Central management of such bottleneck-type facilities has already been recognised as vital in the context of numbering, where Ofcom has proposed a central numbering database. BT would argue that SIMs and the associated service authentication facilities are an analogous bottleneck and warrant similar treatment.

Other types of facility within (or associated with) the mobile network that we believe Ofcom might investigate include:

- "core" network switching and signalling interconnect allowing third party service providers to provide differing levels of their own infrastructure and interconnect at the most appropriate / cost effective point for them;
- backhaul from antenna sites, enabling third party backhaul provision;
- radio access – including radio spectrum access - from antenna to customer terminal;
- access to antenna and/or antenna sites for co-location of aerials or multiple usage of aerials where mobile network operators have their own sites and antennas<sup>2</sup>;
- unbundling the customer device, to enable multiple service/application/content providers to provide customers service via their handset;
- the requirement on all parties to reach commercial agreements expeditiously.

Opening up these types of component would provide opportunities for alternative service/content/application providers to enter the value chain at different points and increase the level of competition and choice for alternative service providers and, as a result, end-customers. Those same customers will soon be asking why they don't have a choice of Internet Service Provider (or even SMS provider) on their mobile devices, in the same way that they have on their fixed services.

And, as we suggested above, Ofcom should reserve spectrum (including that suitable for wireless broadband) for new entrant companies, as well as mandating national roaming onto existing networks for new entrants.

As Ofcom has recognised, the market trend is already towards consolidation and sharing (certainly at the infrastructure level, and initially for 3G networks) and this may therefore be the start of further foreclosure. But in addition to raising entry barriers and engendering possible competition concerns, it does affirm that multiple-party use of certain elements of infrastructure is possible. It may be that the logical extension of the consolidation process that the mobile network operators have already begun is the pooling of wholesale facilities within one or more mobile infrastructure provider, which then supports a multiplicity of alternative and independent service providers. Within a regulated framework, it is

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<sup>2</sup> Suitable and available site locations are a finite resource, and this is similar to "pinch point" duct access in the fixed network where alternatives are not available, desirable or viable (eg building entry ducts or bridge/tunnel crossings). The increasing use of multi-operator radio access network solutions may increasingly facilitate this offering.

possible to see such arrangements further accelerating the launch and adoption of new services in the market place.

#### **4. Termination rate regulation – opportunities for change**

BT agrees with Ofcom that the regulatory regime for mobile call termination needs to change. The convergence of fixed and mobile communications points strongly towards the direction this change should take: regulation of fixed and mobile termination needs to be more closely harmonised. This means that Ofcom should not use different methodologies for addressing termination in fixed and mobile networks. We therefore suggest that in the next review of call termination, Ofcom gives explicit consideration to the issue of harmonisation. Such an approach, while ostensibly more difficult to mount, is more likely to result in an outcome which avoids one party seeking recourse in the courts, and the uncertainty and delay which that engenders, often to the detriment of consumers. BT considers that fixed and mobile termination rates ought to be reviewed simultaneously, in recognition of the converged nature of the market and the similar issues that need to be considered. One particular development that illustrates the need for a harmonised approach is the rollout of femtocells. These are, effectively, fixed termination methods masquerading as mobile and require a sophisticated, holistic assessment of costs.

There is a need for expediency too. In order to have adopted a position on mobile termination regulation in time for the current control's expiry in March 2011, Ofcom will ideally need to commence any review shortly after the Competition Commission publishes its conclusions in the current appeal, expected to be in early January 2009. The strategic issues which Ofcom has raised regarding pricing therefore need fairly prompt resolution<sup>3</sup>.

In terms of future possible regimes, BT considers that termination regulation cannot be dispensed with as long as the Calling Party Pays (CPP) convention is maintained. Ofcom has set out the reasons for this numerous times in its previous consultations and statements, so there is no need for us to expand here. None of the prospective changes in the industry undermines the logic Ofcom has hitherto relied upon: that calling parties have no choice but to use the network of the operator chosen by the person they are calling, to terminate the call. This is, of course, the underlying source of the Significant Market Power (SMP) held by the mobile network operators in termination markets and described in Ofcom's paragraph 6.27. Call termination therefore provides a monopoly to each network provider under CPP. When there was a short period of no regulation earlier this decade (in respect of termination of calls on 3G networks), operators increased their prices by up to 200% from the equivalent regulated rate. In the light of this, BT does not consider "no regulation" to be a credible option for the future.

Even under regulation, the European Commission has recognised that mobile termination rates across the European Union have been set at levels that exceed the incremental cost of terminating calls. As the Commission has noted, this is distorting competition between fixed and mobile operators and, above all, penalising fixed phone users who have, to all intents and purposes, been required to subsidise the mobile phone companies. BT agrees that this is a serious

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<sup>3</sup> This will present an opportunity to harmonise the approach to mobile termination with that for fixed, and Section 86 of the 2003 Communication Act helpfully empowers Ofcom to modify existing SMP services conditions (or set new ones) without carrying out a market review, where there has been no material change in the markets involved since the previous review. Thus a review of the current cost model used for setting mobile termination rates, in order to align it to the model used for setting fixed rates, could be commenced even before the next market review.

structural problem, which is why we have supported the Commission in the direction of the changes it is seeking to make.

A key difference between fixed and mobile termination rates is that fixed termination rates have been set to recover just the incremental costs of carrying a call to the called party but mobile termination rates also recover some of the basic costs of providing mobile phone users with access to the mobile phone network (such as the cost of spectrum licences, the basic costs of laying out the network to provide signal coverage and even, in some countries, handset subsidies). As fixed customers pay all the fixed access costs through line charges, BT strongly supports the Commission's view that fixed customers ought not to be required to pay towards mobile access costs through higher charges to call mobile phones.

Changes in the treatment of call termination services which align approaches in the two sectors ought to be simultaneous. Lowering fixed rates first, under any new harmonised approach for both sectors, would lead to the perverse outcome that existing competitive distortions would be increased for a period. This would clearly be against the Commission's intention.

BT believes the priority for Ofcom ought to be addressing the asymmetrical approaches to call termination between fixed and mobile networks. This does not necessitate "Bill & Keep", for which no clear case has yet been made. Were Ofcom to consider a move to a low termination rate regime for the longer term, as raised by the European Commission, BT is of the view that this would need to be applied either across the fixed and mobile sectors simultaneously (to avoid there being two regimes for the same service), or applied to mobile termination rates first (as these are the ones out of line with costs).

## **5. Universal Service – recognising realities**

As a result of the significant movement towards fixed-mobile convergence since 2003 and rising mobile-fixed substitutability, BT believes that universal service demands a fundamental reassessment. While we recognise that any substantive change to the universal service conditions will need to be preceded by corresponding changes at the European level, we believe that there are steps Ofcom can take *now* to reflect, and more equitably represent, the realities of today's communications market.

Ofcom recognises that there might come a point at which mobile technology could have a role in delivering universal service (8.25 & 8.110-113). The evidence in this assessment demonstrates that the mobile sector now has as significant a role as the fixed sector (and in many instances greater role) in delivering telephony services to the UK population. As set out in the consultation document: mobile has become "nearly ubiquitous" in the UK, with mobile penetration around 120%; the mobile sector is now larger by revenue than the fixed and broadband sectors combined; more than half of average household spend on telecoms is for mobile services; and there are expected to be more mobile calls than fixed calls made in the UK by 2010.

And yet, mobile operators currently receive an entirely free pass in the delivery of universal service while BT (and *KCom* in Hull) is burdened with the entire universal service obligation (USO). In BT's view, this is fundamentally unfair and is increasingly having a detrimental effect on BT's ability to compete with mobile operators in the converged marketplace.

BT believes there are two possible steps Ofcom could take to reflect these realities ahead of the USO being amended.

First, Ofcom could require that mobile operators share the burden of providing universal service by contributing to BT's costs in meeting that burden. Mobile operators are already required to contribute to the cost of the USO in Italy and Spain. In the UK, this would require a finding that BT's provision of universal service imposes an unfair financial burden. We believe that there is mounting evidence that it does.

Second, Ofcom could altogether remove BT's universal service obligation to provide telephony services, on the basis that normal market conditions are sufficiently and affordably delivering these services and thereby achieving the objectives set out in the USO. With mobile services now available throughout the UK and mobile penetration so high, it seems clear that market forces do act to ensure that end users can have a connection and make and receive calls from not only their home or business, but wherever they are situated. The question for Ofcom to consider, therefore, is whether the pervasiveness of mobile services, combined with the presence of some form of fixed connection (BT connection, cable connections, etc) at most premises throughout the country, ensures that a telephony connection is provided to every person requesting one. BT believes that they do and therefore the need for a universal service obligation no longer remains.<sup>4</sup>

BT will, of course, play a vigorous part in the forthcoming debate and offer these and other views to the European Commission. But we believe Ofcom should take a lead now and take steps to ensure that mobile operators share in the burden of providing universal service or remove BT's condition to provide telephony services in light of the fact that the converged marketplace are ensuring that they are being delivered.

### **5.1 Universal Service – emergency service provision**

Ofcom is right to highlight the provision of access to emergency services as an important issue. When BT approaches local authorities over proposals to remove loss-making payphones, of those authorities that object to removal, some 28% state the reason for objecting is that they want to retain public emergency 999 access in their area. They also state that not all mobile networks provide adequate coverage in their area, which is the key reason they want to retain the fixed line service within their communities.

BT therefore advocates:

- that all mobile network operators in the UK allow customers from other mobile networks free access to the emergency services of this country. This will increase the flexibility people have in making such a call in the most convenient manner possible and potentially reduce the need for the payphone aspect of the USO in the UK;
- that until mobile companies conform to this, they pay a contribution towards the provision of USO service in the UK (at least whilst universal service is maintained) - a cost borne exclusively by BT; and
- in the event of interim measures being required until such time as USO falls away entirely, that all UK mobile network operators

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<sup>4</sup> To the extent that Ofcom is concerned about new premises, again market forces ensure that a connection is available. In most cases it makes commercial sense for BT to provide a connection irrespective of any obligation to do so. And where providing a connection is costly because of remoteness or other factors, BT is entitled to charge for additional construction, which makes provision economically viable. And any concerns that Ofcom may have over mobile coverage in this context could be addressed by mandating domestic roaming.

contribute to the UK's USO obligations and/or provide a financial contribution to BT's public payphone service.

Commercial agreements can readily be set up to enable the making of 999 and 112 calls across any network available within that location. Mobile camping is a less complex version of roaming which allows callers to piggy-back on any network for the purpose of making calls that do not need to be charged to the originating consumer such as those to Emergency Authorities. The facility to roam across networks for emergency calls was inhibited within the UK by the mobile providers although many other Member States and the USA allow this functionality. Indeed visitors to the UK from abroad can already benefit from 999/112 roaming even though UK based customers of the same companies do not. In addition, handsets already have the capacity to roam in this manner and so a change of policy to require non-chargeable calls to be offered and enabling camping to take place, would not require consumers to purchase new equipment or devices.

Over the last 12 to 18 months, we understand that Ofcom has discussed the issue of allowing mobile network "camping" for 112 and 999 emergency calls with the mobile network operators and the emergency services, with a view to removing the current technical limitation that is inhibiting this functionality. The fact that, to date, little progress has been made, may indicate that, whilst commercial agreements could be established, the mobile operators are reluctant to implement them. BT believes the current situation cannot be allowed to continue, and that Ofcom should now direct the mobile network operators to enable this facility.

## **6. Migration between providers**

Swift and easy switching between competing providers is one of the foundations of Ofcom's regulatory policy, giving citizens and consumers the power to drive the competition process. The ease of switching is facilitated by industry migration processes, transparency of pricing and marketing, and number portability.

BT has advocated a set of principles for migration, which we believe are appropriate across the spectrum. Any migration process needs to ensure customers:

- are well informed at every stage of the process;
- are well-protected from slamming and mis-selling; and
- get to where they really want to be.

Ofcom is currently examining the wider migration process and we will contribute to those consultations in due course. In the meantime, we note from Ofcom's recent figures that, while the mobile sector has seen very high churn rates as customers move between operators to get the best package and the best handset, a significant 59% of mobile users have never switched.

Another key element of easy migration is the ability of customers to take their number with them. The postponement of work on the Common Database to facilitate direct routing places a still greater urgency on the need for new entrants to be able to access the existing indirect routing practices, as required by General Condition 18. This will aid market entry and promote growth of competition. Ofcom might consider intervening still more vigorously to remove blockages, as, to date, market entry has been impeded by the inability of customers to transfer their numbers to newer providers.



In addition, BT would make the following observations in relation to **numbering** and **number portability**, two important facilitators of migration.

### **6.1 Numbering**

Even though Ofcom's strategic review of numbering took place as recently as 2006, a converging world seems to have approached rather faster than perhaps envisaged. Ofcom's review concluded that the National Telephone Numbering Plan (NTNP) should enable consumers to understand what a number was by the first two digits, that is, 01, 02, etc. The current consultation offers Ofcom an opportunity to revisit some of that work in the light of the converging world we have today. Convergence would seem to call for greater consistency of treatment between number ranges (with respect to the type of services being offered), and a more stringent application of technological neutrality.

One of the central features of the NTNP was that 07 numbering be used for mobile services only. To reinforce this, Ofcom planned to migrate 070 Personal Numbering from the range. As this consultation appears to recognise in a number of places, there is a risk in defining mobile services too rigidly, thereby closing off developments towards convergence. It is worth noting that, two years on, Ofcom's preferred future for Personal Numbering, as set out in its current consultation, is (rightly) no longer moving them out of the 07 numbering space.

One question that therefore needs to be examined again in the context of this review is: *what are the features customers value most in the Numbering Plan?* Is it price or is it other information, such as whether a service is fixed or mobile (whatever each means), or is it something more complex? Once these issues are better understood, it becomes easier, with an associated understanding of how the market and technology are changing, to use the NTNP to support broader public policy objectives.

It may be that technological developments such as femtocells start to blur the distinctions on which the NTNP is based. But until the potential risks are fully understood and addressed, we strongly believe that geographic numbers must continue to be priced as fixed calls and to attract a fixed termination rate even if calls to those numbers were permitted to be terminated on a mobile service.

We would like to make one final point in the context of numbering and price-transparency. In noting consumers' concern (as set out in Ofcom's Section 4) about 'hidden charges', we observe that the treatment of 'freephone' numbers (0800 and 0500) is not consistent across the market, with a corresponding difference in the level of price-transparency for consumers. BT can see no reason why a call to a 'freephone' number is a chargeable call when made from a mobile phone. These numbers are almost universally associated with being free and many businesses have chosen to use 0800 to help consumers contact them easily at zero cost to the caller. Although a call announcement on the mobile networks advises the customer that the call is chargeable, the customer will not know the actual cost unless they contact their mobile provider before making the call. This issue seems an obvious concern for Ofcom to investigate in the next phase of this work.

### **6.2 Number Portability**

Number Portability is designed to promote competition. It requires an existing provider to release a customer's number so that a new provider

of a similar service to the one the customer already has, can provide service on that same number. Portability was mandated in order to overcome the perceived problem that a potential number change presented a barrier to changing providers, and hence encouraged customer inertia and thereby dampened competition. Number Portability was never intended to allow customers to keep their numbers in all circumstances. Indeed, the Directive quite clearly stated that fixed/mobile number portability was not required.

However, in a converged world, where differentiating between what is a fixed and mobile service is increasingly difficult, there will inevitably be pressure to facilitate what, in today's world, would be porting between fixed and mobile services. To relieve this pressure, Ofcom would need to address the wide variations of termination rates between different services, and how network operators' costs should be recovered.

BT believes a caller should be able to know before they make a call how much it is likely to cost, and understand which calls are more or less expensive per minute than others. Realistically, providers can only do this if calls to numbers are charged by the number block<sup>5</sup>, prices for which appear in Price Lists. Even were it technically possible to price calls to individual numbers separately, we would see this as undesirable due to the lack of transparency and the inconvenience to customers in needing to establish the cost of the call - even without portability, this task is already complicated for customers.

Porting between networks with significantly different termination rates presents significant additional challenges but we have started to develop some analysis on this. The need for number portability could, theoretically, be accommodated within the confines of current termination rate regulation by adopting closely controlled criteria. For example, a system whereby recipient networks would always receive their own termination rate for calls to imported numbers, but, to help maintain price transparency and avoid driving up retail call and package prices, number porting would only be permitted between services where the termination rate varied by plus or minus X%, or by plus or minus X pence-per-minute (where X is a very small number). BT believes that this type of system would help drive down termination rates (and hence retail prices), while allowing customers to keep their numbers where they were receiving similar services and maintaining an appropriate level of tariff transparency. We would be happy to share our further thinking on this.

Price transparency and consistency must continue be the over-riding consideration until the consequences to customers of making changes to the termination and/or numbering regimes are fully understood and addressed.

## **7. Other important issues**

### **7.1 Spectrum**

We appreciate that Ofcom has placed its spectrum policy programme outside the scope of this review. However, we cannot emphasise too strongly that this crucial barrier to entry must be properly managed and not allowed to be exploited as a "roadblock to consumer benefit", to quote Lord Currie. As things currently stand, any new spectrum, even if it is allowed to be made available, will have a higher value placed on it by

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<sup>5</sup> All numbers in a 1,000 or 10,000 block are charged the same.

existing players than by potential new entrants, and thus any auction process is likely to see only further entrenchment in the sector. Thus spectrum joins mobile broadband in leading the trend towards a stagnant rather than a dynamic market place.

Even with timely availability of spectrum, as a scarce and finite resource it will remain a bottleneck. With the need for interoperability between users, there will tend to be an acute awareness of common self-interest which itself strengthens the barriers to entry for other parties. It is therefore even more important that effective and sustainable competition is promoted by the removal of barriers to entry at the network and other levels.

## **7.2 Fair access**

BT already operates in an equitable manner with regard to providing connection and transport facilities over its network. The existing wholesale regulation under which BT operates ensures that access to services is the same for competitors as it is for BT's retail operations. However, the mobile networks are not required to observe such equitable treatment of others. We accept the need for network operators to shape traffic to control costs and maintain service standards, but we believe that the mobile operators should not be allowed unduly to discriminate between applications or favour their own applications.

## **7.3 Access and Inclusion**

BT's work with consumer groups suggests that, pay-as-you-go options aside, there remains a vacuum in the availability of simple, periodically invoiced mobile telephony tariffs for people wanting a mobile service without the 'frills' and providing cheaper call packages to those on the lowest incomes and a variety of payment methods without reliance on a bank account which could then bridge any gaps that arise between what is currently available on rental terms and the basic, potentially incoming calls only option of PAYG. Even with PAYG, often used by customers with more limited means, it does not seem right that customers wishing to benefit from competition and port their numbers, generally lose the outstanding credit on their phone – clearly a disincentive to take advantage of the facility of number portability.

Handsets continue to be an issue for many and an inclusive design approach would seem to be needed. The text and video capabilities are advances for people with hearing impairments but the menu driven systems and small screens may cause problems with visual impairment and the option for different text sizes or zoom facilities should be standard (as now occurs in many PC software packages). TextDirect access is needed as standard. The major mobile providers should provide mobile textphone functionality and audio output as part of their offerings. With numerous local schemes being set up for SMS access, it is becoming more important that a national SMS emergency service is established. There is danger in a plethora of local schemes where an individual is only covered when within their own area and may text for assistance outside that area expecting the request to be answered.

Ofcom has identified a range of ways in which mobile phones can play a bigger communications role than person to person, such as 'smart card' and location-based devices. Mobile phones as mobile wallets are already a reality in certain parts of the world, filling the void of services such as banking. The inclusive design of such services becomes even more

important if older and disabled people are not to be excluded from the benefits the technology can bring. BT's experience in the fixed sector suggests that competition will only play a role if there is active encouragement to enter this part of the market. For the development of more specialised services, there is the need for open systems architecture so that smaller specialist firms are able to develop services and fill the gaps left by the major players.

#### **7.4 Broadband speeds**

Given the rapid rise of mobile broadband, Ofcom should lose no more time in implementing a code of practice (or something equally protective of consumers) for the mobile sector.

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