Three Response to Ofcom's Fixed Narrowband Market Review and Network Charge Control - Call for Inputs

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Executive Summary

Hutchison 3G UK Ltd ("Three") welcomes the opportunity to respond to Ofcom's call for inputs in its Fixed Narrowband Market Review and Network Charge Control, published on 17 May 2012.

Some wholesale fixed narrowband markets in the UK are regulated and are subject to network charge controls that were implemented as part of Ofcom's 2009 Market Review. The controls will expire in Sep 2013. Ofcom's call for inputs seeks stakeholders' views about the proposed scope of the next market review and the analytical approach to adopt in assessing (and responding to) a finding of significant market power (SMP). Ofcom expects to issue a fuller consultation document (including its substantive analysis of competitive conditions and detailed proposals) in January 2013.

To provide retail mobile services to its subscribers, Three buys some regulated wholesale narrowband products from BT that are subject to a charge control – in particular, fixed geographic call termination, interconnection circuits and BT's Product Management, Policy and Planning (PPP). Our response focuses on questions that relate to those services and therefore does not address other questions relating to wholesale lines, call origination, local-tandem conveyance/transit, wholesale transit and single transit.

In summary, Three agrees with Ofcom's rationale for regulating fixed geographic call termination (and related services) in previous market reviews. In our view there have been no material changes in the relevant markets that might alter the conclusion that fixed operators have Significant Market Power in the provision of geographic call termination. In consequence, Three agrees with Ofcom's preliminary conclusion that all fixed operators hold a 100% share of the market for fixed call termination.

In Three's view, a charge control on wholesale fixed geographic call termination (and in the related technical areas of interconnection circuits and PPP) continues to be appropriate. There are in our view two main issues to determine in that context:

- The appropriate cost benchmark to adopt – for the reasons set out in this Response, in Three's view Long Run Incremental Cost (pure LRIC) provides the right cost benchmark; and

- Whether Next Generation Networks (NGN) technology is sufficiently established to replace Time Division Multiplex (TDM) as the modern equivalent asset on which to base the charge control – this raises broader questions about the optimal migration path for the fixed industry and commercial interconnect agreement between operators that may be too complex to be fully addressed in the context of an initial call for inputs.

Three looks forward to a detailed discussion of these and other topics in the forthcoming January 2013 consultation.

Scope of the Market Review

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

To provide retail mobile services to its subscribers, Three buys some regulated wholesale narrowband products from BT that are subject to a charge control (fixed geographic call termination, interconnection circuits, and PPP). From Three's perspective, the high level question to be determined in this review is whether BT continues to have Significant Market Power (SMP) in the provision of those services and, if so, what the appropriate remedies are.

In Three's view, the two main issues to determine in that context are those detailed in the above Executive Summary.

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?

In Three's view, ensuring that the above charges are regulated is very important, given that BT continues to enjoy SMP in fixed geographic call termination (and related service like interconnection circuits and PPP) and has an incentive to set excessive charges.

In particular, Three agrees with Ofcom's rationale for regulating fixed geographic call termination in previous market reviews. When a customer of a mobile or fixed communications provider (CP) calls a UK geographic phone number, the calling customer's CP pays the called customer's CP a wholesale termination charge (FTR) for completing the call. This charge is part of the cost base of calls to geographic numbers. In the absence of regulation, the called customer's CP has an incentive to raise its wholesale termination charge to maximize profitability and increase rivals' costs.

In addition, Ofcom needs to ensure that the pricing of these services in the future, in particular those that are regulated, does not lead to a situation which could lead to a price squeeze or foreclosure in the market.

Wholesale markets

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.

While mobile cost termination is a more important factor than the cost of fixed geographic call termination in determining retail mobile prices and the size and composition of mobile bundles (because of the greater volume of calls to mobile numbers and because the cost of terminating those calls is much greater), the FTR is still a relevant factor given that it sets a floor on the cost of calls to fixed geographic numbers.

In its residential and business Pay Monthly packages, Three typically includes a fixed number of voice minutes comprising calls to other UK mobiles and UK landlines. Outside the bundle, the price per minute of calls to other mobiles and landlines is typically the same. Similarly, in its Pay As You Go plans Three typically sets the same price per minute for calls to other mobiles and

UK landlines. Changes in FTRs during the last review period have not been material enough for Three to alter its retail pricing and bundle composition in response.

Fixed call termination

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

Yes. As in mobile call termination (MCT) a product market definition based on termination on each individual network may not be precise, to the extent that some Fixed Carrier Providers (FCPs) offer fixed geographic call termination without operating their own access network.

To address that situation, in respect of MCT Ofcom has found that the relevant product market comprises termination services provided by an individual Mobile Carrier Provider (MCP) to other communications providers:

a) for the termination of voice calls to UK mobile numbers that the MCP has been allocated by Ofcom; and

b) for which that MCP is able to set the Mobile Termination Rate (MTR).

In our view, it is appropriate to adopt a similar definition in respect of fixed geographic call termination and distinguish between the provision of the access network and the control over call termination.

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?

In our view there have been no significant changes in the markets for fixed geographic call termination that might alter the conclusion that FCPs have SMP in each of the defined markets. While the fixed market as a whole is in decline and the fall in MTRs has narrowed the gap between MTRs and FTRs, there has been no material change to the key factors considered in an SMP assessment. In consequence, Three agrees with Ofcom's preliminary conclusion that all fixed operators hold a 100% share of the market for fixed call termination.

In particular, in geographic call termination markets it is still the case that:

- There are no direct constraints – when purchasing wholesale fixed geographic call termination, an originating network will not find termination on an alternative number range to be an adequate substitute in the event of an increase in the FTR, and there is no possible supply-side substitution;

- Indirect constraints are weak:

    - Fixed/mobile substitution – fixed to mobile calls are still substantially more expensive than fixed to fixed calls (so that callers would be unlikely to switch to calling end-users on their mobile in the event of a small increase in the FTR), and it is unlikely that mobile operators would increase their retail prices to reflect a small increase in the FTR (because FTRs are still much lower than MCTs);

- Narrowband/broadband substitution – in respect of managed VoIP services, consumers do not often distribute to their contacts multiple landline numbers, and unmanaged services (e.g. Skype) have lower quality and require a user to be online to be reached.

Next Generation Networks

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?

In previous reviews of fixed narrowband services, Ofcom's approach to market definition has been to break down BT's fixed public narrowband network into segments (such as exchange lines, call origination and termination and local-tandem conveyance). This recognizes that competing operators do not have to build an entire communications network to provide end-to-end calls and can purchase conveyance between network segments from BT.

In our view, consistency with this approach requires that market definitions reflect changes in the relevant network segments and the underlying services provided. The traditional routing of calls in BT's voice TDM network uses hundreds of switches located throughout the UK that are organized in a hierarchy of local and tandem switches. In contrast, the routing of voice calls in a NGN is typically concentrated in a few locations housing high-capacity servers and routers. As Ofcom has found, this means that NGNs have fewer points of interconnection than an equivalent TDM network, so that call termination services would be provided at fewer locations.

It seems appropriate for Ofcom to reflect the reduced number of points of interconnection in its market definitions and to adopt a technology neutral definition of the services involved. Three understands that Ofcom has already taken steps in that direction. In its 2009 Review of the Fixed Narrowband Services Wholesale Markets Statement, Ofcom abandoned the old definition of call termination based on the architecture of a TDM network (i.e. the service that conveys calls to be terminated on a customer's exchange line from the remote concentrator to and over the local exchange). Instead, Ofcom recognized the possible deployment of NGNs and re-defined call termination to include "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".

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.

In respect of fixed geographic call termination, Three considers that the current non-price remedies imposed on BT continue to be appropriate. In particular:

- requirement to provide network access on reasonable request – in the absence of an obligation BT could refuse to supply call termination services or supply such services on unreasonable terms;

- requirement not to unduly discriminate – in the absence of an obligation BT would have a strong incentive to discriminate in favour of its owns retail business;
- requirement to publish a reference offer (RO) – this assists with transparency in monitoring potential anti-competitive behaviour and provides visibility to the terms and conditions on which other providers would be able to purchase wholesale access services;
- requirement to notify charges, terms and conditions – in the absence of an obligation providers of retail services may have insufficient time to restructure their retail prices as a result of a change in costs at the wholesale level.

In respect of interconnection circuits, Ofcom imposes the above remedies plus three additional non-price remedies on BT. Three considers that the remedies continue to be appropriate. In particular:

- requirement to notify technical information – this requires BT to provide advance notification of technical characteristics to ensure that competing providers have sufficient time to respond to changes that may affect them. This is important as competing providers need to introduce new equipment or modify existing equipment or systems to support a new or changed technical interface;
- cost accounting – this obligation is needed to support the effective operation and monitoring of other obligations (such as the charge control);
- accounting separation – this obligation is needed to support the effective operation and monitoring of other obligations, in particular to ensure that BT does not discriminate unduly and favour its own retail businesses to the detriment of third party CPs.

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

Three considers that BT's current 90-day notice period may be disproportionate and out of step with, for example, the notice period required in respect of MTRs. Ofcom requires at least 28 days prior notice of changes to MTRs in order to provide certainty to all purchasers of MCT and allow them to make the necessary amendments in their own wholesale or retail price plans. In our view, a similar notice period may be appropriate in respect of fixed geographic call termination.

Question 20: Should operators of TDM networks be required to provide an IP Interconnection service? 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? Question 22: If not, what should be the arrangements for interconnection between IP and TDM networks and associated charges?

Three understands that some FCPs take the view that NGNs are already the efficient technology choice, so that Ofcom should incentivise TDM operators to migrate more quickly to NGNs – whether by requiring TDM operators to bear some of the costs of interworking the two types of network or by requiring them to provide IP interconnection into their networks (on terms which mimic their having migrated to NGNs).

As discussed in our answer to question 25, these questions raise broader policy and commercial issues regarding interconnect agreements between operators that may be more appropriately assessed in the context of the detailed January 2013 consultation.

Pricing remedies

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?

Yes. In the absence of compelling reasons not to do so, Ofcom should adopt the EC Recommendation. There is a very strong case for the adoption of pure LRIC as the right cost benchmark to set FTRs, as there is in the case of MTRs. Three has supported Ofcom's adoption of pure LRIC in respect of MTRs, and this approach that has been recently upheld by both the Competition Commission and the Competition Appeals Tribunal.

In our view, the same reasoning applies, mutatis mutandis, in respect of FTRs. In essence, high termination rates dampen retail price competition between CPs, establish a retail floor for off-net calls from MCPs and FCPs and distort competition between mobile and fixed operators. Given that MTRs are now capped at pure LRIC, consistency also requires that FTRs are similarly based on pure LRIC.

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?

In our view the question of whether IP-based networks are sufficiently established to replace TDM as the modern equivalent asset on which to base the charge control is the most difficult issue for Ofcom to resolve. This raises broader questions about the fixed industry's optimal migration path from TDM networks to NGN (and its timing) and about commercial interconnection agreements between operators. Three looks forward to a more detailed discussion of this topic in the January 2013 consultation.

Voice calls have traditionally been delivered using circuit-switched technology, which requires a dedicated channel between the caller and the call recipient for the duration of the call. Three understands that in the last market review Ofcom used a cost model based on BT's TDM network. However, IP-based NGN networks are significantly less costly to build and operate than circuit-switched networks, and the roll-out of NGN networks is expected to lead to significantly lower termination rates.

At a high level, Three agrees with the EC recommendation that the cost model should be based on the efficient technological choices available in the time frame considered by the model. A key principle in regulating fixed and mobile call termination is that CPs are entitled to recover the costs of an efficient operator, reflecting the outcome in a competitive market. To that extent, it may be appropriate that a bottom-up model built for this review should assume that the core network is NGN-based.

The Analysys Mason Report attached to the call for inputs shows that several European countries have already adopted NGN architecture as the sole modern efficient standard in cost modeling for the purposes of setting FTRs, while other countries (Norway and Sweden) have

adopted an explicit glide path to migrate from a TDM to a NGN cost base.[1] This approach would provide BT and other TDM operators with the right economic incentives to accelerate the roll-out of more efficient NGN networks.

On the other hand, Three understands that the majority of calls to fixed geographic numbers terminate on TDM networks. Ofcom has traditionally excluded technologies at low levels of deployment for cost modeling purposes when regulating call termination in both fixed and mobile networks. For instance, in its 2011 MCT Statement Ofcom modelled HSPA technology but excluded HSPA+, on the basis of that HSPA+ was not yet deployed in any UK mobile network and would not reflect the choices that would be made by a hypothetical efficient national MCP.[2] This approach reflects uncertainty about the reliability of capex and opex costs produced by a bottom-up model based on a new network technology. As an example, the Analysys Mason report attached to the call for inputs discusses the difficulties that the German regulator, BNetzA, has experienced with its multi-service NGN model.[3]

There are also a number of issues to be resolved in relation to:

i. which party should bear the transmission and conversion costs that inevitably result from the co-existence of different network technologies; and

ii. how to guarantee appropriate levels of service – for instance, although Three operates a mainly IP core network, it still interconnects over TDM. Some of the key reasons for doing so are that technical standards for interworking, in particular between fixed and mobile networks, are still not mature enough to guarantee a quality of service comparable to that of TDM.

In summary, this question is inextricably linked with broader policy and commercial issues and its answer requires a careful analysis of many factors that may be more appropriately assessed in the context of the detailed January 2013 consultation.

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?

Three understands that Ofcom's 2009 fixed call termination model was a top-down model based on adjusted data from BT's Regulatory Financial Statements. In contrast, a bottom-up model based on a core NGN network built for the purposes of this market review would need to be calibrated against real-world costs derived from a real UK network.

We understand that there are some examples of fixed NGN networks deployed in the UK. It may be possible for Ofcom to request the provision of specified cost information from those CPs in order to calibrate its NGN model. Alternatively, the Analysys Mason report attached to the call for inputs has a detailed discussion of NGN models used by other European regulators, and Ofcom may be able to benchmark its results against those.

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[1] Section 3.3, Analysys Mason Study of Approaches to Fixed Call Origination and Termination Charge Controls, May 2012.

[2] Mobile Call Termination Statement, paragraph 9.49.

[3] Page 38.

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?

We understand that Ofcom used a current cost accounting (CCA) depreciation approach and a fully allocated cost (FAC) approach to common cost allocation in its 2009 fixed call termination model. This approach does not appear consistent with the economic depreciation model that Ofcom has used in respect of MCT for several years and which, as Ofcom points out, has been supported by the Competition Commission in three previous appeals.

In our view there appears to be no good reason to adopt different approaches to cost recovery in respect of MTRs and FTRs, and Ofcom should consider adopting economic depreciation in this review.

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?

Three agrees with the position set out in the EC's Recommendation on the regulatory treatment of fixed and mobile termination rates. The Recommendation says that common costs previously recovered from wholesale termination should be recovered from the competitive retail side of the market. This approach would also be consistent with the approach adopted by Ofcom in its 2011 MCT Statement.

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

Three believes that FTRs should be aligned to pure LRIC without delay. In Three's view there is no need for a prolonged period of time or glide-path in order to minimise industry and consumer disruption resulting from falling FTRs. A glide-path will only delay benefits to consumers. In our view the EC recommendation and, more recently, the adoption of pure LRIC as a the relevant cost standard in MCT, have given industry participants a clear message that FTRs will fall in the short term, and lower rates are likely to have been widely anticipated and built into business plans.

An immediate reduction to pure LRIC would not be out of line with regulatory precedent. Three understands that such an approach was adopted by Ofcom in the 2008 leased lines charge control review, in the 2004 review of BT's product management, policy and planning (PPP) charge and in Oftel's move from annually determined historic cost accounting (HCA) fully allocated cost (FAC) charges to current cost accounting (CCA) and LRIC based charges.

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. An approach based on symmetric FTRs for all FCPs is consistent with the EC Recommendation on the regulatory treatment of fixed and mobile termination rates in the EU and with Ofcom's 2011 FTR Guidance.

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?

Ofcom anticipates regulating FTRs of all CPs on a symmetric basis at the benchmark charge control level set by pure LRIC. Three has no strong view on whether the associated regulatory obligation is one of "fair and reasonable" symmetric charges set at the level of pure LRIC or a symmetric charge control, provided that the resulting rates are set at a similar level.

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? 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?

In our view time-of-day rates are increasingly anachronistic in a world where CPs increasingly compete on the basis of retail packages providing inclusive (or, in the case of FCPs, unlimited) call minutes to geographic number ranges for a fixed monthly fee, irrespective of the time of day.

We therefore agree with Ofcom's preliminary view that there may be merit in adopting a simple pricing rule similar to that adopted in respect of MCT, which would reduce complexity and increase certainty and transparency for all parties in the industry.