2016 Consultation on the Review of Mobile Termination Rates in Jersey

Consultation Document

Channel Islands Competition and Regulatory Authorities

Document No: CICRA 16/48

November 2016

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1. Introduction

1.1 Telecommunications networks, both fixed and mobile, need to be connected to one another in order that customers of those different networks are able to call each other. Telecommunications regulators around the world have a role in ensuring the adequate interconnection of those networks.

1.2 To support the interconnection of those networks one of the services that network operators offering voice services provide to each other is call termination. Call termination means the completion of a call from a customer of another network. Mobile call termination ('**MCT**') is a particular type of call termination service provided by a mobile network operator ('**MNO**'). It enables the originating network operator to connect a call through to a customer of a different MNO.

1.3 The originating operator pays an amount known as the mobile termination rate ('**MTR**') to the MNO providing the wholesale service.

1.4 Regulators in many European countries have identified a need to ensure that MTRs are set at a level that reflects the efficient and cost-effective provision of those services. The European Commission has also set out its view that there is a significant benefit in national regulatory authorities moving towards setting MTRs based on the long run incremental cost ('**LRIC**') of provision.

1.5 In 2010, the Jersey Competition Regulatory Authority (the '**JCRA**') found that there were distinct markets for the termination of calls on each mobile network in Jersey[1] and that each MNO held significant market power ('**SMP**') for the termination of traffic on its own network. This conclusion has formed the basis of subsequent decisions by the JCRA to impose a price control on MTRs in Jersey[2].

1.6 In September 2014 the JCRA issued a Final Notice in Jersey (which is still in force) that an MTR of 4.11 pence per minute ('**ppm**') should be applied to MNOs in Jersey. 4.11 ppm is both significantly higher than many other countries and given studies elsewhere, may be in excess of the LRIC to MNOs of providing those services.

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[1] Decision on the Holding of Significant Market Power in Various Telecommunications Markets - http://cicra.gg/_files/100420%20market%20review%20decision.pdf

[2] The relevant legal powers of the JCRA are set out in Annex 1

2. Purpose of consultation

2.1 This document consults on the need for reassessment of the current MTR. If so on what basis?

2.2 The JCRA is therefore issuing this consultation to seek the views of stakeholders on the following issues:

(a) Do the MNOs active in Jersey have SMP on the relevant market?

(b) If the MNOs do have SMP, is a price control (ie, setting and MTR rate) the most appropriate remedy?

(c) If setting an MTR rate is the most appropriate remedy, what is the basis on which the MTR should be calculated?

2.3 Following an assessment of responses to this consultation and other relevant evidence, the JCRA will publish its conclusion.

2.4 ***Disclaimer*** *- This document does not constitute legal, technical or commercial advice; CICRA is not bound by this document and may amend it from time to time. This document is without prejudice to the legal position or the rights and duties of CICRA to exercise regulatory powers generally.*

3. Structure of the Consultation

3.1 The consultation document is structured as follows:

Section 4:	Do the MNOs active in Jersey have SMP in the relevant market?
Section 5:	Possible regulatory intervention by the JCRA.
Section 6:	Options for setting the MTR in Jersey
Section 7:	Summary and Next Steps
Annex 1:	Legal and Regulatory Framework

3.2 Interested parties are invited to submit comments to the JCRA in writing or by email on the matters set out in this paper to the following addresses:

CICRA
2nd Floor, Salisbury House
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St Helier
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JE2 3RF

Email: info@cicra.je

3.3 All comments should be clearly marked "2016 Consultation on the Review of Mobile Termination Rates (MTRs) in Jersey" and should arrive by 5 pm on 13 January 2017

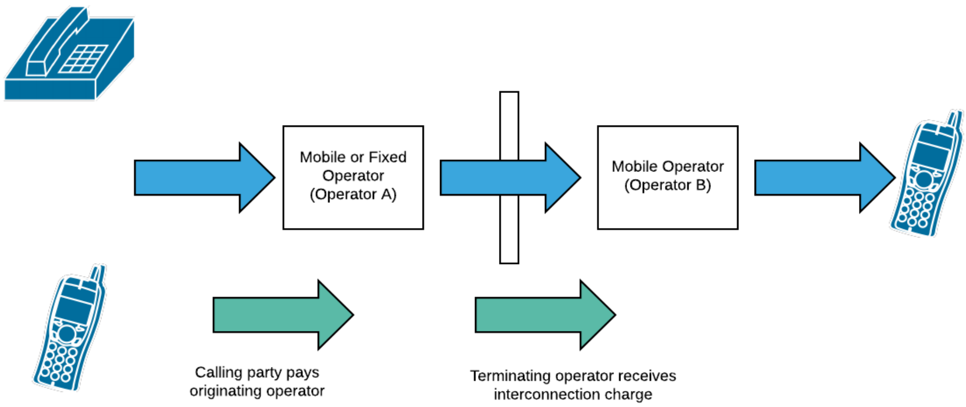
3.4 In line with CICRA's consultation policy, the JCRA intends to make responses to the consultation available on the CICRA website (www.cicra.je), the combined website of the GCRA and JCRA. Any material that is confidential should be put in a separate annex and clearly marked as such so that it may be kept confidential. CICRA regrets that it is not in a position to respond individually to the responses to this consultation.

4. Do the MNOs active in Jersey have SMP on the relevant market?

Introduction

4.1 An operator originating a call to a mobile number (the originating operator) pays an amount known as the mobile termination rate (MTR) to the mobile network operator (MNO) providing the wholesale service. This is the current interconnection practice in Jersey (as in many countries in Europe and across the world). The call flow is illustrated in figure 1 below:

Figure 1: Mobile termination and calling network provider pays.



4.2 In 2010, the JCRA found that there were distinct markets for the termination of calls on each mobile network in Jersey[3] and that each MNO held significant market power (SMP) for the termination of traffic on its own network. This conclusion has formed the basis of subsequent decisions by the JCRA to impose a price control on MTRs in Jersey.

4.3 The JCRA considers that it is appropriate to test whether this conclusion remains appropriate by carrying out a new SMP analysis.

4.4 An SMP analysis consists of two distinct steps. First, the relevant product and geographic markets must be defined. Second, the question of whether the undertaking in question holds SMP on that market must be addressed.

4.5 In this section the JCRA therefore considers the appropriate retail and wholesale markets and tests whether one or more MNOs have SMP on the relevant wholesale market.

Market definition

Methodology

4.6 It is appropriate to first consider the retail markets, since the appropriate starting point for the overall assessment of wholesale markets is generally accepted[4] to be the definition of the

[3] Decision on the Holding of Significant Market Power in Various Telecommunications Markets - http://cicra.gg/_files/100420%20market%20review%20decision.pdf

[4] See Recital 4 of the 2007 EC Recommendation, Commission Recommendation of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to *ex-ante* regulation

relevant retail markets from a forward-looking perspective[5], taking into account demand-side and supply-side substitutability[6]. This is because demand for wholesale products is derived from the retail market and will be affected by its characteristics[7, 8].

Retail market

PRODUCT MARKET

4.7 The JCRA considers that the appropriate starting point for its assessment should be a voice call initiated by the calling party to the called party's mobile number for which a termination fee is applicable. This is because callers value calls that successfully reach the called party. In this respect, it is the end-to-end call which is important rather than individual parts of that call (such as termination). Customers value mobile services because these allow them to make calls and be contacted in many different locations in a way that is not possible with fixed services.

4.8 The JCRA will therefore base its focal product on calls to all Jersey mobile numbers[9] which are active, or which it expects to be active, over the period of the review. Such a focal product captures the fact that termination of a call initiated to the called party's mobile phone can be over different technologies. This includes 2G, 3G and 4G networks or, potentially, Wi-Fi based solutions. At the retail level, when callers initiate a call to the called party's mobile phone, they (and their originating network) have no control over the technology used to terminate the call. Calling parties will very often be unaware of which technology is used. Moreover, calls to a particular called party's mobile phone may terminate using different technologies during the same cell (eg, drop-back from 3G to 2G).

4.9 The proposed set of focal products also excludes services that do not use mobile telephone numbers to establish voice calls between two users, for example, Viber and Skype. We refer to these services as 'pure-OTT' as they do not involve mobile numbers, are purely delivered over

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5 Ie, a perspective which evaluates the expected and foreseeable technological and economic developments likely to affect mobile markets for the proposed period of this price control

6 See Recital 4 of the 2007 EC Recommendation.

7 In particular, competitive constraints at the retail level may impose an indirect constraint on the wholesale market since some proportion of the wholesale price increase is likely to be passed on to the retail level. This may in turn result in retail customers switching to goods which do not require the wholesale input. If such retail substitution would be sufficient to limit the ability of a wholesale operator to profitably raise wholesale prices (ie, MTRs) by any significant amount then an indirect constraint exists. Such indirect constraints might lead to wholesale products being included in the same relevant market even if those products do not constrain each other directly at the wholesale level.

8 The so-called modified Greenfield approach - see section 2.5 of Commission Staff Working Document, Explanatory note, Accompanying document to the Commission Recommendation of Relevant Product and Service Markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications and services (Second Edition), 13 November 2007 ('Explanatory Note to the 2007 EC Recommendation') https://ec.europa.eu/digital-agenda/sites/digital-agenda/files/sec_2007_1483_2_0.pdf

9 In practical terms calling parties are normally able to identify whether they are contacting the called party on their mobile phone by reference to the number range. Moreover, as we explain below, at a wholesale level it is the party controlling the number range that determines the pricing of traffic that terminates on that number range. This wholesale pricing then feeds through to the retail prices for calls to that number range faced by calling parties. Under the UK National Telephone Numbering Plan[9], Jersey has designated specific number ranges for mobile services within that plan. These are those number beginning 070 to 075 and 077 to 079. . The plan defines a mobile service as:

"… a service consisting in the conveyance of Signals, by means of an Electronic Communications Network, where every Signal that is conveyed thereby has been, or is to be, conveyed through the agency of Wireless Telegraph to or from Apparatus designed or adapted to be capable of being used while in motion." Ofcom, The National Telephone Numbering Plan, 13 December 2013

data connections and are not routed via the switch of the called parties' network[10]. For the avoidance of doubt, calls which are initiated on OTT applications, such as 'Skype Out', but terminate on mobile numbers are included in the set of focal products.

4.10 Having identified this focal product, it is then necessary to determine whether callers would switch away to an alternative product if the price of voice calls to mobile numbers were to increase on the basis of the SSNIP[11] test.

4.11 For the following reasons, the JCRA considers that callers would be unlikely to do so and that relevant market is therefore a voice call initiated by the calling party to the called party's mobile number in Jersey for which a termination fee is applicable:

(a) For callers to react to an increase in the price of calls to a specific mobile number they must be sufficiently aware of that increase to act upon it. In particular, consumers need to be aware they are calling a mobile number, the specific network/call provider that controls the number and the price they would face when calling that particular network/mobile number. Research carried out by other national regulatory authorities suggests consumers are unlikely to be aware of (and therefore unlikely to react to) any impact that an increase in MTRs might have at the retail level, even if retail price rises were significant, ie, of the order of 5 – 10%;

(b) The characteristics of alternative forms of communication mean that consumers would be unlikely to switch to them in response to a small but significant retail price increase of a call to a mobile number [12]:

i. **<u>Calls to a fixed line as a substitute for calls to a mobile.</u>** If a caller tries to contact a mobile user and expects that user to be in reach of a known landline (eg, work or home) then, in principle, the caller might call the fixed line as a substitute for a call to a mobile number. However, the JCRA considers that calls to fixed lines are not in general a close enough substitute for calls to mobiles to be included in the same market. This is because of differences between the two types of call:

- First, calls to mobiles offer a much greater chance of immediate contact, especially if the call is not planed between caller and recipient;
- Second, the caller may not easily be able to find out an alternative fixed line number;
- Third, consumers may not be aware of whether a call to a fixed number could be a cheaper alternative;

10 For example 'pure-OTT' applications such as those operated by Skype and Viber rely on access to a mobile handset via a data connection. As such a call does not need to be routed via the switch of the called parties' network, so it does not attract a termination rate. Moreover, consumers can distinguish these calls to mobile numbers and are likely to expect to pay different rates.

11 SSNIP - Small but significant non-transitory increase in price

12 This is consistent with the findings of Ofcom which, in its 2011 review, found that these alternative products should not be included in the relevant product market since customers did not consider them to be substitutable for mobile calls.

- Fourth, consumers may value the added call record or voicemail privacy of a mobile handset, which is not likely to be shared with others in the same way as a fixed line.

ii. **<u>On-net Mobile to Mobile (M2M) calls as a substitute for off-net calls.</u>** Given the limited uptake of multiple SIM cards and limited likely impact of calling circles, we did not consider that a SSNIP in off-net calls would lead to consumers switching to on-net calls for the following reasons:

- Substitution between off-net and on-net calls is only possible for callers who possess multiple mobile subscriptions that allow them to select to make a call on-net to the receiving party's network and so avoid the termination fee. Only a small proportion of consumers use more than one mobile phone. Furthermore, observations in other jurisdictions show that, even when MTRs were higher, and the on-net/off-net differential was large, holding multiple SIM cards was not common;
- As well as requiring two mobile phones, substitution to on-net calls also requires individuals to be aware that they are calling a network of a specific operator. Such awareness is generally low and is more so since the introduction of mobile number portability in the Channel Islands in December 2008;
- Some callers may have calling circles, ie, a network of friends, family or business colleagues where calls between members of the circle account for the majority of calls made by members of the circle. Indeed, there are mobile plans that could facilitate such coordination. It is possible for members of these calling circles to coordinate their choice of network, when otherwise they would not, in response to an increase in the price of termination, and that this could make the price rise unprofitable. JCRA notes that the results of a survey undertaken by Ofcom[13] suggest that this behaviour is unlikely to happen in practice. ;

iii. **<u>Call-back arrangements.</u>** A call-back arrangement is one where the receiver of the call agrees to hang up and call the initiating party after contact has been established. The return call can be made using a method convenient for both parties. Call-back arrangements generally require close and ongoing coordination between the two parties involved. Since a reversal means that the recipient now pays for the call, they must either be willing to bear a larger

[13] The results of a Kantar Media survey undertaken for Ofcom do not suggest that a significant number of consumers coordinate their choice of mobile network based on calling circles. Only 6% of respondents (unprompted) said that having friends and family on the same network was a factor in the choice of mobile operator, although this increased to 11% respondents when presented as a (prompted) choice. One explanation for why the majority of consumers today are not particularly concerned about being on the same network is the relatively limited instance of direct price differentials between on-net and off-net calls. Moreover, there is likely to be limited scope to coordinate calls in this way, given the range of people called and the fact that these people may have further contacts of their own. It may therefore not be easy to determine a single network that all members prefer. There may also be other barriers to coordination, for example members of the calling circle may be on post pay contracts that are due for renewal at different times. In any case, if some consumers coordinate their choice of network so as to face lower retail calling prices, this will not protect those who were unable to do so from price rises above the competitive level. That is, even if the pool of consumers who would otherwise pay a termination rate was reduced, it is unlikely to be reduced to such an extent that it constrained MNOs from pricing above the competitive level for termination.

proportion of the costs of calls between the two parties over time or have a sufficient expectation that the original caller will return the favour at a future date. Evidence from other jurisdictions suggests that call-back arrangements are not widespread at present and so we do not consider that call-back arrangements would act as a significant constraint as a switching option for consumers.

iv. **The use of 'pure OTT' services.** Pure OTT services are services used to make voice or video calls to mobile handsets where the call is delivered to the recipient's mobile handset as packets of data using Wi-Fi or a mobile broadband connection. As the call bypasses the mobile number associated with the end user, no MTR is incurred. The JCRA considers that the constraint on mobile call services imposed by OTT services is growing over time[14]. However, for the period covered by this review, based on studies elsewhere, pure OTT services appear unlikely to be substitutable for mobile calls for a number of reasons, including:

- A lack of compatibility between different OTT services;
- Potential limited availability of OTT services on a user's handset;
- Limited availability of call recipient (eg, a user may be required to "log on" before being able to receive calls);
- Issues related to ease of use, and
- Lower call quality of OTT services.

This above is consistent with the findings of the European Commission, the OECD and other industry commentators. It is also consistent with market research carried out by Ofcom as part of its 2015 MCT review[15], which suggests that the use of OTT applications does not currently seem to be a close substitute for calls to mobile numbers.

v. **SMS, email, instant messaging and social networking sites.** The evidence suggests that these various forms of non-voice communication are not substitutable for voice calls over a mobile network since there are fundamental differences between the nature of voice communication and these alternatives. In particular:

- SMS is limited in length and can be subject to delay in delivery especially during periods of high traffic;
- Email is potentially subject to even longer delays depending on how regularly the recipient might check and respond to email;

[14] For example, the issue of compatibility may continue to reduce as smart phone penetration increases. There is also likely to be increasing familiarity with applications. Individuals may overcome compatibility issues by installing multiple allocations or, over time, a single platform may emerge as a standard. The use of VoIP or video calling applications could be increased as the services are integrated into popular social networking sites such as Facebook, which recently acquired WhatsApp. Apple, for example, has extended its FaceTime application to allow voice calls (although it appears the service may remain restricted to Apple devices).

[15] Ofcom, Mobile call termination market review 2015-18, 4 June 2014

- Instant messaging ('**IM**') services potentially offer more immediate two-way many-to-many conversations, but such services still operate within 'closed user group' whereby not all users will have access to particular messaging applications.

  Alternative forms of communication are also not good at the conveyance of a paralanguage of speech, for example the pitch, intonation and volume of speech.

(c) In order for retail supply-side substitution to be a realistic possibility, a firm that is not currently supplying mobile voice calls (to a specific number) would have to be able to begin doing so relatively quickly following an MTR driven increase in the retail price and in a way that avoided payment of MTRs. However, since the payment (or not) of MTRs is controlled by the operator on whose network the call is terminated, a new market entrant could not avoid paying MTRs to such an operator. The retail supply-side substitution argument therefore does not appear to have much force for the period of this market review.

4.12 In summary, alternative forms of communication at the retail level appear unlikely to constrain the pricing of termination charges for calls to mobiles. As a result, it is proposed by the JCRA that the relevant market at the retail level is a voice call initiated by the calling party to the called party's mobile number for which a termination fee is applicable.

Question 1: Does the respondent agree with the JCRA's provisional views relating to the retail market product market? If the respondent does not agree with the JCRA's provisional views the respondent should provide all of its analysis and assessment of this market.

Wholesale Market

PRODUCT MARKET

4.13 For purposes of product market definition the starting reference product is - wholesale termination services provided by <u>each</u> mobile communication provider for the termination of voice calls to <u>each</u> Jersey mobile number allocated to the MNO by Ofcom for which that MNO is able to set the termination rate. This is because:

(a) The determination of which MNO terminates a call depends upon which MNO has been allocated the number called; an MNO that is allocated numbers is uniquely positioned to control (ie, terminate) calls to those numbers[16];

(b) There is no prospect of effective wholesale demand-side or supply-side substitution in the period of this review. Demand-side substitution would involve a call originator network purchasing wholesale mobile call termination services or an appropriate

16 In line with our starting point for the analysis of the retail market, we propose to include the termination of calls to all Jersey mobile numbers that are active, or we expect to be active, within the review period, including those that are used to provide call forwarding services. We exclude from our proposed market definition the termination of calls through 'pure-OTT' applications such as Skype and Viber from our set of products at the wholesale level.

substitute from an operator other than the one to which the mobile number is allocated. Since it is proposed that there are no sufficiently close substitutes for calls to a mobile number, switching to alternative services at the wholesale level is also not possible. This means that mobile call termination services are the only relevant wholesale input and since the MNO that has been allocated the number in question is the only one able to supply the termination service to that number, there are no opportunities for wholesale demand-side substitution, and

(c) There appears to be no likely technological developments to change this preliminary conclusion.

4.14 The JCRA has then considered whether it may be appropriate to widen the market to include the termination of calls to all mobile numbers allocated to each MNO and for which the MNO can charge the MTR, rather than proceeding on the basis that there are distinct markets for call termination for calls made to each individual mobile telephone number. The following factors appear relevant:

(a) An MNO is likely to face **homogenous competitive conditions** in providing mobile call termination services to the different numbers in its number range, which implies that its conduct in supplying the service in relation to different mobile numbers is likely to be similar; and/or

(b) An MNO faces a **common constraint** for example through billing systems which would make it difficult/costly to charge different MTRs to different mobile numbers even if it wanted to.

4.15 For this review the JCRA is of the opinion that, absent regulation, competitive conditions in the wholesale market for different mobile numbers are likely to be homogenous if the same MNO sets the termination rate. However, competitive conditions may differ between those mobile numbers for which different MNOs set the termination rate. Therefore we provisionally consider that, on the basis of homogenous competitive conditions, termination of all calls made to all mobile numbers allocated to each MNO for which the MNO charges the MTR should be defined as a distinct product market.

4.16 Whether the market should be widened beyond the separate markets on each MNO identified in the preceding paragraph has also been considered. However, each of these MNOs will be able to set the MTR independently, absent SMP price regulation. Thus there is no common pricing constraint linking in the MTR set by each of these MNOs and it is therefore not apparent why the relevant market should therefore be widened beyond each MNO.

Question 2: Does the respondent agree with the JCRA's provisional views that there is no common pricing constraint linking in the MTR set by each of the MNOs and therefore the relevant market is each MNO? If the respondent does not agree with the JCRA's provisional view the respondent should provide all of its analysis and assessment of this market.

4.17 In its provisional analysis the JCRA has suggested that the provision of mobile call termination to all the mobile numbers allocated to a particular MNO should be included within the same market. Here we clarify which 'types' termination services we propose covered by this market definition. We consider the market for mobile call termination will include:

- any call conveyance technology used to deliver voice call termination to mobile number, whether delivered by 2G, 3G, VoIP or VoLTE -based technologies; and
- all mobile number ranges allocated to a particular MNO over which it is able to set the rate charge to originating (or transit) service provider.

4.18 We also propose that our market definition should include the following 'types' of voice call termination:

- *Ported-out numbers (while ported-in numbers are excluded)*. Under a process known as "porting" when consumers change network they can take their current mobile number with them. Ported numbers are subject to specific charging arrangements, which mean that the MTR for calls to those numbers is determined by the donor network originally allocated the number. We therefore propose to include termination of calls to ported-out numbers as part of that operator's termination market.
- *Calls to voicemail*. When a call is diverted to voicemail, such traffic is still included in our proposed market definition. The number range holder decides whether and how to divert a call to a particular mobile number and faces the same competitive constraint in setting the termination rate as for a call that is connected to the intended recipient.
- *Call forwarding services*. In some cases, a call initiated to a mobile number may be routed on to a fixed landline or another mobile number (including internationally). However, such routing typically sits within the control of the MNO allocated the mobile number to which the call was initially routed. In the circumstances the MNO is able to set the MTR, irrespective of the final destination call
- *Other call types*. Some calls are not typically calls between users (eg, test calls, calls to customer services) and may not logically form part of the market definition. However, since such call volumes are a very small proportion of the total, we do not think it proportionate to perform a detailed analysis of each call type. We propose to treat these calls as being within the market where the call is made to a Jersey mobile number and a common pricing constraint means they are charged the MNO's MTR.

4.19 In addition to the above call types, we have considered in more detaile international roaming, which is subject to more complicated charging and routing arrangements.

4.20 International roaming is a service that allows mobile subscribers to use their mobile phone to make and receive calls for visiting another country. For the purposes of our market definition, we consider the following two cases: a) UK mobile subscribers (using a 07XX Channel Islands mobile numbers) roaming outside the Channel Islands and B) foreign mobile subscribers (using foreign mobile numbers, eg, + 39 XXX) roaming on a Channel Island's network.

4.21 In this first case, we believe that calls made to Jersey mobile numbers while the call recipient is roaming abroad are part of the relevant mobile call termination market. Calls made to Jersey subscribers roaming abroad are initiated by a call to the Jersey mobile number and are initially routed to the Jersey home network which effectively terminates the calls from the perspective of the paying (ie, originating or transiting) service provider. The home MNO charges a termination rate and then forwards the calls to the foreign visited network in the relevant foreign countries where the Jersey subscribers are temporarily roaming.

4.22 The second case we consider is when call recipients of foreign mobile subscribers (with a foreign mobile number) roam on a Jersey network. In this case, the charges the Jersey hosting network levies are typically different from the MTRs charged for calls terminated on Jersey mobile numbers. Calls to foreign mobile numbers will be subject to the roaming agreement between the Jersey visited network and the foreign home network. As such, the competitive conditions for the termination of these calls are quite different from those of course terminated to Jersey mobile numbers. In particular, unlike the wholesale market for domestic termination, there is competition in the provision of wholesale roaming services in the Jersey for visiting (ie, overseas) MNOs, including the voice call termination component of these roaming services. That is, the foreign network can choose among Jersey MNOs to terminate its subscribers' calls. Therefore, because the number ranges, routing and billing arrangements, and competitive conditions differ for wholesale roaming services (including termination) provided by Jersey MNOs, we propose that these calls fall outside the mobile call termination market subject of this review.

4.23 For the avoidance of doubt, any call originated internationally (ie, where the subscriber is not roaming in Jersey) and terminated on a Jersey mobile number is considered to be part of the relevant mobile call termination market.

Table 1: Summary of call types included within our proposed product definition.

Call Type	Consultation Proposal
Voice calls	Terminated on a mobile number
Off-net	YES
On-net	NO
Ported In	NO
Ported Out	YES
Calls to voicemail	YES
Voice calls to mobile numbers terminating on IP	YES
Call forwarding (including international)	YES
Calls to Jersey number roaming abroad	YES
Calls to non-Jersey numbers roaming in Jersey	NO

Question 3: Does the respondent agree with the JCRA's provisional views relating to the call types included within the proposed product definition? If the respondent does not agree with the JCRA's provisional view the respondent should provide all of its analysis and assessment of this market.

WHOLESALE MARKET – GEOGRAPHIC MARKET

4.24 At the wholesale level, mobile termination services are accessed by an originating operator at a relevant handover point on the terminating MNO's network.

4.25 Competitive conditions will not differ between those handover points within Jersey, as, regardless of the location, all those termination points provide connection to all Jersey mobile numbers for which the terminating operator controls the MTR. This suggests it is appropriate to consider the geographic market as the area for which the MNO can determine the MTR in relation to its allocated Jersey mobile numbers.

4.26 We therefore propose that the scope of the geographic market definition relates to the area (ie, an MNOs relevant handover points) for which the MNO can determine the MTR in relation to is allocated Jersey numbers. This area lies within Jersey.

Question 4: Does the respondent agree with the JCRA's provisional views relating to the geographic market for the wholesale market? If the respondent does not agree with the JCRA's provisional view the respondent should provide its own analysis and assessment of this market.

MARKET DEFINITION - CONCLUSION

4.27 Taking account of the reasoning outlined above, the JCRA is consulting on the appropriateness of the following market definition[17]:

"Termination services that are provided by [named mobile communications provider] (MNO) to another communications provider, for the termination of voice calls to Jersey mobile numbers allocated to that MNO by Ofcom in the area served by that MNO and for which that MNO is able to set the termination rate."

Question 5: Does the respondent agree with the JCRA's provisional views relating to the proposed market definition? If the respondent does not agree with the JCRA's provisional view the respondent should provide all of its analysis and assessment of this market.

[17] The 2007 EC Recommendation identifies the mobile call termination market is a market which is susceptible to *ex-ante* regulation in the following terms: "*voice call termination on individual mobile networks*".

We consider that our proposed definition is consistent with that of the EC. This is because, by definition, the mobile numbers allocated to an MNO identify those calls that are switched to, and routed by, the recipient's network. Therefore, a reference to a mobile number range necessarily refers to the activity of the relevant individual mobile network (as the MNO provided termination must have some form of switching and routing). However, given that there is scope for confusion in the use of the word 'network' (which in some contexts might be interpreted as a reference only to radio access network) we have not used the word "network" in the proposed market definition. Market evidence in the UK suggests that the ownership or operation of what has been traditionally understood is a mobile network (eg, a 2G, 3G or 4G radio access network) is not essential to whether an MTR can be set to interconnecting operator (origination or terminating traffic to the operator in question).

In addition we note that the revised EC Recommendation on relevant markets also recommends a technology neutral approach to market definition in the wholesale mobile call termination markets. It suggests that the market for mobile termination is composed of the markets for termination offered by each MNO. It notes that, in line with the technology neutral approach, this comprises termination on all network technologies. It also includes call termination irrespective of where the call originates. It states that the geographic scope of each market coincides with the geographic coverage of the network concerned and is usually national.

4.28 Based on the above definition, the JCRA has identified a total of four separate markets for wholesale mobile call termination services. The table below lists the MNOs we propose to include:

Table 2: proposed relevant mobile call termination markets

Mobile Network Operator	Mobile Number range/s currently allocated	Provision of mobile call termination
Jersey Airtel Limited	07829 7xx xxx, 07829 8xx xxx and 07829 9xx xxx	YES
JT (Jersey) Limited	07015 xxx xxx, 07059 xxx xxx, 07797 xxx xxx, 07937 xxx xxx	YES
Marathon Telecommunications Limited	07911 0xx xxx, 07911 91x xxx, 07457 2xx xxx, 07458 5xx xxx	YES
Sure Jersey Limited	07700 3xx xxx, 07700 7xx xxx, 07700 8xx xxx	YES

Question 6: Does the respondent agree with the JCRA's provisional views relating to the proposed relevant mobile call termination markets? If the respondent does not agree with the JCRA's provisional view the respondent should provide all of its analysis and assessment of this market.

<u>SMP analysis</u>

4.29 Under the European Framework Directive an undertaking is considered to have SMP if:

> *"either individually or jointly with others, it enjoys a position equivalent to dominance, that is to say, a position of economic strength of affording it the power to behave to an appreciable extent independently of competitors, customers and ultimately consumers*."[18]

4.30 Each MNO has 100% of the relevant market. The JCRA has therefore considered whether there is compelling evidence to suggest that, despite these very high (monopoly) market shares, the MNOs should be considered not to have SMP on those markets. It has done so by examining whether:

(a) Barriers to entry are low; and

(b) Countervailing buyer power (**CBP**) is likely to exist.

ARE BARRIERS TO ENTRY LOW?

4.31 If MNOs could quickly and easily invest in further infrastructure that enabled provision of mobile call termination on another MNO's network, this would indicate that barriers to market entry were low. This is considered unlikely to be a realistic possibility within the short-term for two reasons. First, MNOs, which each have 100% of their own relevant market, would not have strong incentives to co-operate to forego the monopoly profit that can be

[18] Article 14(2) of the Framework Directive.

earned from mobile call termination. Second, no infrastructure mechanisms are expected to be available to allow market entry.

IS THERE COUNTERVAILING BUYER POWER?

4.32 The JCRA does not consider that there is any evidence of CBP in this market. The JCRA therefore proposes that each of the four MNOs have SMP in the relevant market.

Question 7: Does the respondent agree with the JCRA's provisional views relating to the barriers to entry and countervailing buyer power? If the respondent does not agree with the JCRA's provisional view the respondent should provide all of its analysis and assessment.

5. Possible regulatory intervention by the JCRA

Introduction

5.1 In 2010, the JCRA set a maximum MTR that each MNO could impose in Jersey.

5.2 Given that the JCRA, in its provisional conclusions, has proposed that each MNO has SMP on the relevant market (in line with best practice in other jurisdictions), the JCRA seeks the views of stakeholders on:

(a) Whether an *ex-ante* remedy is appropriate; and

(b) If an *ex-ante* remedy is appropriate, which remedy or combination of remedies is best suited to this market.

Is an *ex-ante* remedy appropriate?

5.3 An *ex-ante* remedy might only be considered appropriate if:

(a) Harm can be expected to result from the SMP held by MNOs; and

(b) *Ex-post* competition law remedies would not be able adequately to address that harm.

CAN HARM BE EXPECTED TO ARISE FROM THE SMP HELD BY MNOS?

5.4 The JCRA considers that, on the best practice assumption that MNOs have SMP on the relevant market, they would be likely to have the incentive and the ability to engage in the following types of harmful behaviour in relation to the termination of mobile calls on their networks:

(a) **Refusal to supply mobile call termination**. An originating service provider whose interconnection request is rejected by an MNO, or accepted only on unreasonable terms, would not be able to connect its customers to customers of that MNO (on fair and reasonable terms or at all). This would harm the originating service provider's customers. Such behaviour could also reduce competition and thus, by extension, further harm end-customers. The use of transit providers would not address this harm adequately, not least because an MNO could also refuse to provide access on fair and reasonable terms to such a transit provider.

(b) **Excessive pricing**. It is likely that, absent regulation, MTRs would be set at excessively high levels. In the JCRA's view, this would be harmful[19] for the following reasons:

i. **Distortion of competition in retail markets**: The ability to exploit a position of SMP in the relevant market has implications and risks for retail markets given

[19] If MNOs set excessive MTRs they may be able to earn economic profits for that service (ie, returns in excess of their cost of capital). These profits from mobile call termination could be 'returned' to consumers through competition at the retail level in the form of incentives to buy mobile services-such as lower retail core prices and/or handset subsidies. This competing away of excess profit is known as the 'waterbed effect'.
We consider that even if the waterbed effect led to a full 'recycling' of higher MTRs (which we do not believe to be the case) excessive MTRs can still harm consumers' interests by distorting competition in downstream retail markets. Unregulated MTR levels also affect economic efficiency and have distributional impacts.

each of the MNOs is vertically integrated with their own retail customers. Each MNO would have the ability and incentive to subsidise their own retail customers which other MNOs will be forced to meet the costs of through excessive MTRs. Such distortionary effects are harmful to the health of competition and consumer choice where SMP exists.

ii. **Economic inefficiency**: Efficient markets are essential in supporting increased productivity and economic growth. Excessive MTRs would contribute to economic decisions around usage and choice of services by consumers that do not match their economic costs. In a market where there is SMP this is potentially harmful to economic growth given the limitations of choice by consumers and distorted incentives that result from such price signals[20].

iii. **Distributional impact of MTRs**: Excessive MTRs may impact different groups of mobile users differently depending on whether they are net makers or net receivers of calls. With unregulated MTRs such retail effects are likely to be even more pronounced.

(c) **Discrimination between customers**: A discriminatory supply of mobile call termination could take both price and non-price forms. MNOs could exert their SMP to exclusionary effect in the absence of regulation through discriminatory treatment of smaller service providers. For example, they could charge higher MTRs and/or provide an inferior quality of service to new entrant service providers or smaller service providers in order to create barrier to entry or expansion for such players.

(d) **Decline in market transparency**: A lack of reasonable clarity or certainty with respect to MTRs could be a consequence of unregulated charges by providers with SMP. Service providers who need to purchase mobile call termination services would be unable to anticipate their costs accurately as a result. This may lead to consumer harm if service providers who need to purchase mobile call termination then mitigate that financial risk by increasing retail prices. Originating service providers may also react to such financial risk by excluding from their call allowances/bundles calls made to mobile numbers which incur unclear or uncertain MTRs. This could then result in undesirable consumer outcomes, such as tariff complexity and/or, potentially, bill shock. Lack of clarity over MTRs may also deter potential new entrants, thus potentially harming competition and, by effect, end-customers.

WOULD *EX-POST* COMPETITION LAW BE SUFFICIENT TO ADDRESS THESE HARMS?

5.5 Before considering *ex-ante* regulation (ie, SMP conditions) to remedy the problems arising from SMP in mobile call termination markets, it is important to consider if competition law remedies might be sufficient to address these problems. This is because *ex-ante* regulation should only be imposed where competition law remedies are insufficient to address the

[20] Examples of this include:

- The price of calls to mobiles from fixed lines will be relatively high, and other charges for mobile services (such as monthly access fees) relatively low. This inefficient structure of prices would lead to overconsumption of mobile retail services and under consumption of other retail services that use mobile call termination, such as fixed-to-mobile calls.

Even with respect to mobile-to-mobile calls, excessive MTRs would create distortions. Because MTRs establish a floor for the price of mobile-to-mobile calls between service providers (ie, off-net calls), high MTRs can lead to higher prices for off-net calls than for on-net calls, thereby distorting consumer choice between the two call types.

competition problem(s) identified. Insufficiency can involve a combination of timeliness concerns and the degree of harm that results. The damage to the market can be more extensive the greater the length of time taken to address that harm and/or the extent to which already fragile competition is harmed irreparably.

5.6 Generally, the case for *ex-ante* regulation in communications markets is based on existence of market failures which, by itself or in combination, mean that competition might not be able to become established if the regulator relied solely on *ex-post* competition law powers. Therefore, in the presence of market failures, it is typically appropriate that *ex-ante* regulations are used to address risks of market failures and any barriers to entry that might otherwise prevent effective competition from becoming established within the relevant market defined. Also, by imposing *ex-ante* regulation that promotes competition it may be possible to reduce such regulation over time, as markets become more competitive, allowing greater reliance on *ex- post* competition law.

5.7 In mobile call termination markets the nature of the problem is one of persistent SMP by a number of monopolies. Each MNO operates in a distinct product market where there are considerable barriers to entry. The risks of market failure which would arise in the absence of any regulation is therefore a material consideration and in the JCRA's view justifies *ex-ante* intervention.

5.8 *Ex-post* competition law seems unlikely by itself to bring about or promote effective competition as it focuses on past abuses of dominance. In contrast, *ex-ante* regulation is normally aimed at actively promoting and/or protecting the development of effective competition going forward by attempting to reduce the level of market power or dominance in the identified relevant markets and failing that, to constrain the ability to abuse such a position.

5.9 The JCRA provisionally considers that *ex-post* competition law, under the Competition (Jersey) Law 2005 would be insufficient to address the lack of effective competition in the markets defined above and prevent the problems identified in this consultation document. Therefore, *ex-ante* regulation is required. This is a position that is consistent with many other jurisdictions.

Question 8: Does the respondent agree with the JCRA's provisional views that *ex-post* competition law would be insufficient to address the lack of effective competition in the markets defined and prevent the problems identified in this consultation? If the respondent does not agree with the JCRA's provisional view the respondent should provide all of its analysis and assessment.

If an *ex-ante* remedy is appropriate, which remedy or remedies should be imposed?

REMEDIES AVAILABLE FOR *EX-ANTE* INTERVENTION

5.10 The table below sets out the issues that may be appropriate to address through intervention and in broad terms the remedies available to us under our legal powers.

Table 3: Remedies available for ex-ante intervention

			Relevant remedies (SMP conditions)			
			Network access obligation	Price transparency obligation	No undue discrimination obligation	Charge control
Competition problems (arising from SMP)	**Price**	Excessively high MTRs	YES	YES		YES
		Lack of price certainty		YES		
		Undue Discrimination (price)		YES	YES	
	Non-Price	Undue Discrimination (non-price)	YES		YES	
		Refusal to supply mobile call termination services	YES			

5.11 In the following subsections below, consideration is given to the remedies that are appropriate to address the different types of harmful behaviour in which an MNO with SMP could engage in in relation to the termination of mobile calls on its network:

(a) **Network access obligation**. A network access obligation would address a refusal by an MNO to terminate calls on its network. The JCRA therefore considers that a general network access obligation is necessary to protect end-to-end connectivity and should apply to all MNOs with SMP. An SMP condition is proposed that requires all MNOs with SMP to provide network access on reasonable request on fair and reasonable terms and conditions;

(b) **Price transparency obligation**. In the absence of reasonable clarity and certainty with respect to MTRs the purchaser of mobile call termination (such as originating call providers and transit providers) would not have forward-looking certainty concerning the costs of purchasing this service. This would harm competition and consumers' interests at the retail level. It is therefore considered appropriate to impose a price transparency obligation on all MNOs with SMP. An SMP condition that requires all MNOs with SMP to publish their MTRs and to notify changes in their MTRs is proposed;

(c) **No undue discrimination obligation**. The two remedies above do not provide sufficient protection against dominant providers exploiting their SMP to distort competition in other ways that would ultimately harm consumers. There is the potential for discrimination, especially that which may affect smaller and new entrant MNOs, exists in the supply of mobile call termination by MNOs. It is therefore considered appropriate to impose a condition that requires that the MNOs do not unduly discriminate with respect to network access;

(d) **Charge control obligation**. It is not considered that the three remedies set out above would alone prevent MNOs from being able to charge excessive MTRs. It is therefore considered appropriate to set a maximum MTR for MNOs operating in Jersey[21].

Question 9: Does the respondent agree with the JCRA's provisional views on *ex-ante* remedies? If the respondent does not agree with the JCRA's provisional views the respondent should provide all of its analysis and assessment.

21 For completeness we note that although an MNO that begins providing mobile call termination after our decision is published will not be subject to SMP conditions, if an interconnecting operator were unable to agree terms of access with such an MNO then it could refer a dispute to us for resolution. While we would consider each case on its facts in general we are likely to consider that the regulated cap under the proposed charge control is the appropriate starting point for MTRs charged by new entrant MNO.

6. Options for setting the MTR in Jersey

Introduction

6.1 In considering the approach to setting a charge control obligation (ie, a price cap), there are a number of bases on which the MTR in Jersey could be set:

(a) Keep the MTR at its current level of 4.11 ppm;

(b) Adopt a bottom up long-run incremental cost ('**BU-LRIC**') model approach;

(c) Benchmark against EU and 'similar jurisdictions', or

(d) Rely on available modelling carried out where key features are applicable to the Jersey market.

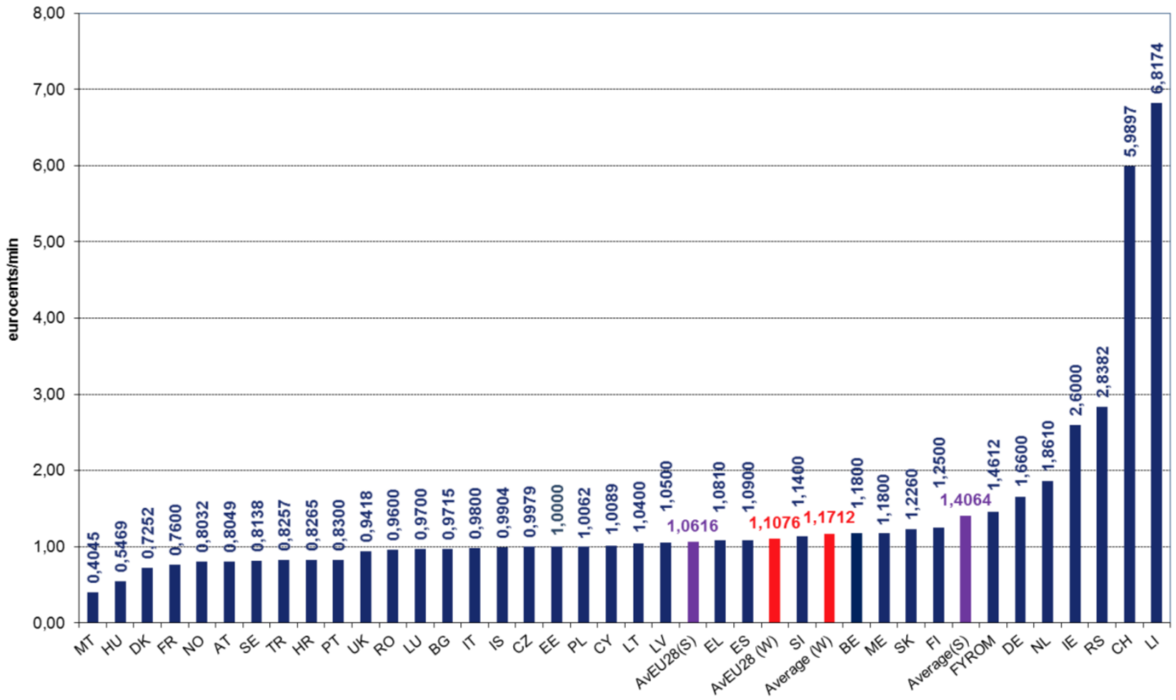
It is necessary to consider which of these options is the most appropriate for the particular circumstances of Jersey and the relevant market context.

Keep the MTR at its current level of 4.11 ppm

6.2 The JCRA does not consider that the MTR remaining at its current level is an acceptable option for the forward setting of the MTR. This is because:

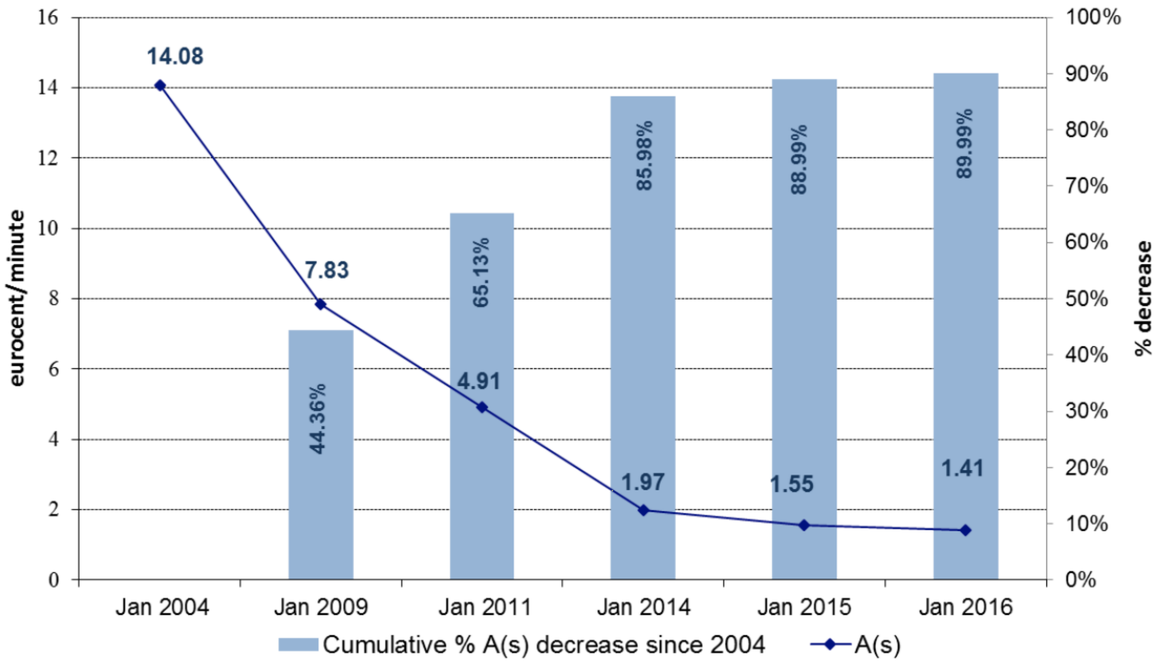
(a) The rate of 4.11 ppm[22] is significantly higher than many other European jurisdictions. It has been in place for a number of years and has not been reduced to the same extent as other jurisdictions over time. The cost of mobile network equipment has seen dramatic reductions which may be a contributing factor to declines seen elsewhere and would be expected to be evident in Jersey.

Figure 3: MTR per EU country – January 2016 in Eurocents per minute (Source: BEREC, Termination Rates at European Level, January 2016, BoR (16) 90)



22 4.11 ppm is equivalent to 4.57 eurocents at this time of finalising this consultation document (12 October 2016) £1 = 1.1112 EUR

Figure 2: European MTRs simple average cumulative decline (Source: BEREC, Termination Rates at European Level, January 2016, BoR (16) 90)



(b) Based on studies elsewhere an MTR of 4.11 ppm may not be based on the costs incurred by an efficient operator and if so operators do not have to recover their costs efficiently (ie, recovering the cost from where it is incurred). The issues of concern that arise have been set out in the previous section.

Adoption of a Bottom Up – Long Run Incremental Cost Model (BU-LRIC).

6.3 Whilst the use of a BU-LRIC model would allow the MTRs to be accurately set to reflect the cost incurred by an efficient operator, the JCRA does not believe it to be a proportionate solution for setting an MTR in Jersey. This is because of the costs involved in constructing an appropriate and accurate model and the time that it would take to do so. The Ofcom MTR model for example involved significant expenditure by that regulator. The JCRA considers such a scale of expenditure to be out of all proportion to the size of the Jersey market.

Benchmarking based on EU jurisdictions

6.4 Benchmarking has been used by the Channel Islands' regulatory authorities to set a range of prices.

6.5 Benchmarking does rely on the choice of benchmarked countries. Finding comparators for a small island jurisdiction has particular challenges and in the JCRA's experience there are difficulties in basing a specific level of control on such an exercise. Generally these benchmark indicators tend to be informative in general rather than specific in their application. However to provide an indication of the level of MTRs across a number of jurisdictions, the range of the benchmarking options identified is from 0.611 ppm (4 EU jurisdictions and Isle of Man) and 0.998 ppm (six EU jurisdictions and the Isle of Man). The simple average of these five benchmarking scenarios is 0.75 ppm.

Rely on available modelling carried out in other jurisdiction/s where key features of such modelling are applicable to the Jersey market

6.6 The Ofcom model on which the UK's MTRs are based is publicly available. The current rate of UK MTR is (from 1 April 2016 to 31 March 2017) 0.513 ppm reducing to 0.507 ppm on 1 April 2017. The UK MTR is due to be reviewed for 2018.

6.7 The JCRA also has access to a consultant with considerable experience of the Ofcom MTR model who has carried out an assessment of the appropriateness of the Ofcom MTR model as a proxy for an MTR model for Jersey.

6.8 The approach taken was to adjust the model based on the geo-types (ie, areas in the UK that are similar and in the model that were most appropriate to Jersey). The high-level findings were discussed with the mobile operators in the Channel Islands in January 2016.

By carrying out high-level adjustments based on limited data from the operators the consultant's conclusion was that:

- The Ofcom MTR model was a suitable proxy to be used as a BU-LRIC MTR model to be applied to the Jersey market, and
- Sensitivity analysis provides a potential range of MTRs of between 1 ppm and potentially below the UK MTR.

Summary

The UK is the Channel Islands' closest partner in terms of 1) closeness of markets, 2) trading partner, 3) network integration and 4) the volume of conveyance of calls to and from the Channel Islands.

It is the JCRA's consideration that the justification for a BU-LRIC approach has been confirmed in extensive legal proceedings in the UK. The UK BU-LRIC model is also accessible and has been applied to operators in the UK. It has been demonstrated to the JCRA that scalability does not play a significant part in the level of the BU-LRIC rates set for the UK and therefore those rates may be suitable for the purposes of setting MTRs in Jersey.

Question 10: Does the respondent agree with the JCRA's provisional findings on the justification for a BU-LRIC approach to the setting of the MTR? If the respondent does not agree with the JCRA's provisional findings the respondent should provide all of its analysis and assessment.

Question 11: Does the respondent agree with the JCRA's provisional view that the Ofcom MTR model is a suitable proxy to be used as a BU-LRIC MTR model to be applied to the Jersey market? If the respondent does not agree with the JCRA's provisional view the respondent should provide all of its analysis and assessment.

7. Summary and Next Steps

7.1 The JCRA will consider the responses received to this consultation. The responses will inform the JCRA's considerations on the setting of an MTR rate.

Annex 1 – Legal and Regulatory Framework

Legal Background

Article 16 of the Telecoms Law provides that the JCRA may include in licences such conditions necessary to carry out its functions. The Telecom Law specifically provides that licences can include:

- Conditions for the prevention or reduction of anti-competitive behaviour; and
- Conditions allowing the JCRA to make determinations.

A Class III licence also includes conditions relating to the requirement to provide interconnection services and the production of a reference offer for interconnection services ("RIO"). The JCRA has previously issued directions to JT on the production of a RIO[23].

Regulatory Framework

In April 2010, following a review of the markets for telecoms services in Jersey[24], the JCRA made the following decision with respect to significant market power ("SMP") in markets relevant to this Initial Notice:

- **Voice call termination on individual mobile networks**: Each mobile operator, that is, JT, CWJ and JAL has SMP in the market for terminating calls on its own network;

Condition 33.2 of the licence issued to JT provides that:

> "The JCRA may determine the maximum level of charges the Licensee may apply for Telecommunications Services within a relevant market in which the Licensee has been found to be dominant. A determination may:
>
> a) Provide for the overall limit to apply to such Telecommunications Services or categories of Telecommunications Services or any combination of Telecommunications Services;
> b) Restrict increases in any such charges or to require reductions in them whether by reference to any formula or otherwise; or
> c) Provide for different limits to apply in relation to different periods of time falling within the periods to which the determination applies."

This condition therefore allows the JCRA to regulate the prices that JT charges for telecommunications services in a way and for a time that it deems appropriate, provided that JT has a dominant position in the relevant market in which those services are supplied.

Condition 34.1(c) of JT's licence is designed to protect fair competition in the markets in which JT operates, and provides as follows:

The Licensee shall: …

(c) comply with any direction issued by the JCRA for the purpose of preventing any market abuse or any practice or arrangement that has the object or effect of preventing, restricting

23 Direction of the JCRA 2004/3 Re: Jersey Telecom Limited's Reference Interconnect Offer, 29 April 2004, see http://www.cicra.gg/_files/040429%20Initial%20Notice%202004-3.pdf

24 Response to the Consultation Paper 2009 – T3, "Review of the Telecommunications Market in Jersey" and Decision on the Holding of Significant Market Power in Various Telecommunications Markets, 21 April 2010, see http://www.cicra.gg/_files/1004%20market%20review%20decision.pdf

or distorting competition in the establishment, operation and maintenance of Licensed Telecommunications Systems or the provision of Telecommunications Services.

This condition allows the JCRA to give directions to JT, including in relation to the prices that it charges.

As noted above, both JAL and CWJ have also been found in April 2010 to be dominant (or to process SMP) in the provision of termination services on their networks. Part IV of their licences provide for the JCRA to impose further obligations in the event the JCRA determines the operator has SMP in a specific market. Those obligations include a Fair Competition condition (condition 27), part of which is in the same terms as Condition 34.1 (c) of JT’s licence, set out immediately above.

The EC Recommendation expects that termination rates are set based on the costs incurred by an efficient operators, and that this is based on bottom-up modelling using long-run incremental costs (LRIC) as the most appropriate costing methodology.

The JCRA has to consider the benefits of setting MTRs based on the costs incurred by an efficient operator whilst ensuring that the process decided upon is proportional for a small jurisdictions such as Jersey.