Three
Star House
20 Grenfell Road
Maidenhead
SL6 1EH
United Kingdom

T +44(0)1628 765000
F +44(0)1628 765001
Three.co.uk

Three.co.uk

NON-CONFIDENTIAL VERSION

By email only

Gala Poole
Ofcom
4th Floor,
Competition Group
Riverside House
2a Southwark Bridge Road
London SE1 9HA

Email: Gala.Poole@ofcom.org.uk

14 January 2014

Dear Gala,

Review of Mobile Donor Conveyance Charges

Please find attached Three's response to Ofcom's consultation of 6 December 2013 relating to a review of mobile donor conveyance charges (the "**Consultation**").

If you would like to discuss any of the issues which are raised in this response further, please do not hesitate to contact either myself or my colleague Victoria Harris.

Yours sincerely,

Xavier Mooyaart
Head of Legal: Competition and Regulatory

Registered Office: Hutchison 3G UK Limited
Star House, 20 Grenfell Road, Maidenhead, Berkshire, SL6 1EH
Registered Number: 3885486 England and Wales

Question 1: Do you agree that it would be appropriate for Ofcom to set a maximum DCC across the mobile industry on a forward-looking basis? If not, please explain why you disagree.

Three understands that Ofcom considers this approach appropriate in the present circumstances on the basis of General Condition 18 applying across the industry and it being more efficient to conduct one industry-wide exercise than to determine two bilateral disputes and then extend the results of those disputes on an industry-wide basis.[1] Three supports Ofcom's approach as it aims to ensure a more cost-oriented DCC is put in place between Three and certain of its interconnect partners in the same 4 month timeframe as would apply in a dispute process.

Ofcom considers this approach an appropriate alternative means of resolving Three's DCC disputes with each of EE and Telefónica under s186(3) of the Communications Act 2003 (the "Act").[2] Consistent with section 186(3)(c) of the Act, Ofcom must therefore consider it likely to achieve a prompt and satisfactory resolution of Three's disputes. Section 186(6) of the Act allows Three (or any other party) to refer the disputes back to Ofcom should this proposal fail to resolve Three's disputes within a four month period.

Question 2: Do you agree with our analysis of the appropriate cost standard and modelling approach? If not, please explain why you disagree.

Appropriate cost standard

Three agrees that Ofcom needs to address the question of the appropriate cost standard for consumers and competition as part of its separate policy project.

This review is an alternative means for the resolution of disputes and is limited in time and scope. In Three's opinion, the current review should adopt the cost standard specified in GC18. On this question, Ofcom proposes at para. 4.13 of the Consultation to "*maintain the cost standard used in the 2007 Determinations*". Three notes that back in 2007, DCCs were based on asset costs from the 2007 MCT model (which at that time used a LRIC+ standard). Ofcom concludes from this that the 2007 determination implicitly used total service LRIC plus a mark-up for network common costs (i.e., a LRIC+ approach). In Ofcom's view, use of pure LRIC in the current review would therefore constitute a "*change in policy*" in how Ofcom derive cost-based DCCs.[3]

As Three agrees with Ofcom that the "*question of the appropriate cost standard to use in setting DCCs was not explicitly addressed in either the 1999 or 2007 Determinations*"[4], it is unclear to Three how the adoption of pure LRIC in the current review would constitute a change in policy.[5] In Three's view, as Ofcom did not explicitly address this question in 1999 and 2007, nor clarify since the appropriate cost standard for setting DCCs, it now needs to determine the cost standard prescribed by GC18. As Ofcom's policy position has never clearly been set out, it is difficult to see how Ofcom's position constitutes a "policy change."

[1] See [**CONFIDENTIAL**].
[2] See paragraph 2.20 of the Consultation.
[3] See paragraph 4.9 of the Consultation.
[4] See para. 4.4 of the Consultation
[5] See para. 4.9 of the Consultation

In Three's view, a number of developments question any clear adoption by Ofcom of a LRIC+ standard for setting DCCs, namely:

- **The 2007 Determinations failed to expressly adopt a LRIC+ cost standard**. In Three's view, the most that can be said is that the Analysys model relied on the unit costs set out in the 2007 LRIC+ MCT model. However, that reliance was a logistical convenience, since the 2007 MCT model was a readily available source of asset unit costs. No other model was available from which to generate pure LRIC based DCCs, rather than LRIC+ based estimates.

  Three notes that Ofcom's 2007 Determinations set out to estimate the additional costs of donor conveyance on a pure LRIC basis. For instance, Ofcom stated (emphasis added):

  "*General Condition 18 ("GC18") of the General Conditions of Entitlement provides that charges for providing number portability shall be cost oriented and* <u>*based on the incremental costs of providing portability*</u>*. Ofcom has therefore assessed the level of the DCC in accordance with GC18.*" [6]

  "*Ofcom considers that the DCC amounts to a charge for the provision of Portability on the basis that it is a charge levied by the Donor Provider for providing Portability in respect of a number ported out of the network of the Donor Provider. That charge must therefore be reasonable, cost oriented and* <u>*based on the incremental costs of providing Portability*</u> *unless otherwise agreed between the parties or otherwise determined by Ofcom. In the absence of an alternative agreement between the parties and any direction by Ofcom,* <u>*Ofcom has therefore assessed what a reasonable, cost oriented charge based on the incremental costs of Portability*</u> *should be.*" [7]

  In consequence, the calculations performed by Analysys clearly implied the use of pure LRIC (emphasis added):

  "*Ofcom has been asked to resolve a dispute that relates to the donor conveyance charge (DCC) for ported-number call routeing and set-up. The DCC* <u>*relates to the additional costs*</u> *within the networks for handling a call to a ported number. Ofcom has asked Analysys* <u>*to estimate the additional costs*</u> *arising from a call to a ported number.*"[8]

- **Ofcom's preliminary 2010 views on a historic DCC period are more consistent with a pure LRIC approach**: On 12 April 2010, Ofcom wrote to operators to set out its preliminary views on the maximum DCC compliant with General Condition 18 for the period between July 2003 and February 2008.[9] Ofcom's letter attached a DCC model which considered only the incremental assets required to service ported calls and made no allowance for common costs. It effectively estimated the pure LRIC cost of donor conveyance.

[6] Paragraph 1.4, Ofcom 2007 Determinations.
[7] Paragraph 2.9, Ofcom 2007 Determinations.
[8] Section 1, Analysys 2007 Report
[9] See Ofcom's letter to James Westby of Three of 12 April 2010, in which Ofcom sets out its preliminary views on the maximum DCC to be set for a historical period (the "12 April 2010 Letter").

Ofcom's April 2010 letter also contained the most explicit discussion Three is aware of on Ofcom's positioning on the relevant cost standard, stating:

"*To comply with GC18, DCCs levied during the Historical Period, s<u>hould be limited to the additional costs related to the provision of portability</u> – that is, those incurred by the donor in conveying a call to a ported number, as compared with a call to a non-ported number…*

….Pursuant to GC18, charges must be based on the incremental costs of providing portability unless MNOs agree another basis for deriving cost oriented charges (or another basis is directed by Ofcom). W<u>e have considered whether the DCC should only reflect incremental costs with no mark-up, or whether the recoverable costs include a contribution to the recovery of common costs</u>. However, in the circumstances of this case, the approach adopted makes no material difference to our view of the maximum allowable DCC during the Historical Period"

In Three's view, Ofcom adopts a pure LRIC (rather than LRIC+) approach in the letter. If DCCs are "*limited to the additional costs related to the provision of portability*", they cannot also include common costs which, by definition, are not additional to that service and would still be incurred in the absence of portability. Ofcom went on to explain that, in any event, the cost standard used does not make a material difference to the resulting DCC.

In light of the above, in Three's view, Ofcom has never clearly addressed the issue of the appropriate cost standard for setting DCCs. Pending a detailed examination of the appropriate cost standard for consumers and competition (which Ofcom proposes to assess in its forthcoming 2014 porting policy project work), the decisive factor is the wording of GC18, which in Three's view clearly suggests the adoption of pure LRIC. GC18 requires charges to be based "*on the incremental costs of providing portability*" unless MNOs agree another basis for deriving cost orientated charges (or another basis is directed by Ofcom). Moreover, GC18 explicitly states that the Donor Provider shall make no charge in relation to System Set-Up Costs or Additional Conveyance Costs. It would be surprising if GC18 went to great lengths to preclude certain costs but included common costs. In the case of on-net originated calls, in April 2010 Ofcom also excluded switching and transmission costs on the basis that they "… *are <u>not additional</u> or related to portability" and "would also be incurred when conveying a non-ported call between donor and recipient*."[10] (emphasis added).

If Ofcom does however consider that GC 18 should be construed as meaning a LRIC+ cost standard should be applied when setting DCCs, in Three's view, Ofcom's reasoning for this choice still needs to be clearly set out.

<u>*Modelling approach*</u>

Three continues to question the propriety of using an onward routing, cost-based model for setting the DCC. In Three's view, the most up to date industry solution for mobile number portability is a direct routing system using a national central database (a system now widely

[10] See paragraphs 9 and 10 of the 12 April 2010 Letter.

used in a number of jurisdictions around the world, including Ireland, Denmark, Italy, Finland, Norway, Sweden, Germany and Belgium). Implementation of such a system avoids the on-going reliance on range holders' networks for onward routing of calls. Moreover, no additional donor conveyance costs are incurred.

If Ofcom rejects this technology as the appropriate MEA at this time, in Three's view the alternative of direct routing using databases local to each operator should be used as the appropriate MEA. The implementation of call-trapping by all MNOs demonstrates that direct routing using a database local to each operator in respect of each operator's ported in numbers is a practical and efficient technology. This same technology could be used to route all ported calls, by expanding the local database of each operator to include data from the existing local databases of other operators, and routing calls accordingly.

Question 3: Do you agree with our analysis of the relevant types of cost to take into account? If not, please explain why you disagree.

Off-net originated calls:

Three has the following comments on costs relevant for off-net originated calls:

Three agrees with Ofcom's view at paragraph 4.35 of the Consultation that "*the costs of the HLR look-up (i.e., the SRF look-up of a database and set up for routing to a RNO) are costs associated with resources used in effecting the switch processing required to set up the ported call which are additional to the costs of conveyance of non-ported calls*" and so should be excluded from any DCC calculation as they fall within the definition of "Additional Conveyance costs" under GC 18.5(b) and so are not recoverable.

Three also supports Ofcom's view that transit costs should not be included in any DCC calculation. As Ofcom mentions at paragraph 4.37 of the Consultation, the increased usage of direct interconnection by MNOs means that "*BT transit costs are no longer efficiently incurred*." As a result Three agrees with Ofcom that their inclusion would contravene the principle of cost minimisation. In Three's experience, Ofcom is also correct to point out at footnote 36 of the Consultation that in practice donor conveyance traffic is not an important consideration for operators when negotiating direct interconnection arrangements. Three also notes that in relation to on-net originated calls Ofcom has previously held that any transit and interconnect cost in excess of that incurred when conveying a non-ported call between donor and recipient would fall under the definition of Additional Conveyance cost and would be precluded[11].

On-net originated calls:

Three supports Ofcom's view that that allowable DCC costs should exclude the cost of transferring calls to ported numbers when the originator and donor operator is one and the same party. This position is consistent with Ofcom's preliminary view in April 2010 that:

> "*8. In contrast, we consider that allowable costs exclude the cost of transferring calls to ported numbers when the originator and donor operator is one and the same party*

[11] See footnote 5 of the 12 April 2010 letter. In Three's view, the same approach should apply for off-net originated calls.

> *(‘on-net originated calls’). These calls are directly routed and the donor does not act as a transit provider in any meaningful sense. If a DCC is applied in respect of these calls, the donor receives both the retail price for the call and the DCC.*
>
> *9. The donor will incur two types of cost when directly routing a ported call originating on its own network:*
>
> > *a) Costs incurred in relaying routing enquiries (signalling) and in applying the routing instructions to enable a call to be correctly routed, such as 'look up' costs and the cost of prefix addition;*
> >
> > *b) Switching and transmission costs, such as MSC and transit/interconnect costs.*
>
> *10. Costs of the first type are Additional Conveyance Costs precluded by GC 18.2(b)[12][13]. In the case of on-net originated calls, costs of the second type are not additional or related to portability – they would also be incurred when conveying a non-ported call between donor and recipient[14].*”[15]

Question 4: Do you agree with our analysis of the appropriate level of donor conveyance costs (in particular the assumption about MSC processor load)? If not, please explain why you disagree.

The model assumes that a donor conveyance call requires 40% of the switch site resource required by an incoming or outgoing call, based on the assumed relative MSC processor load requirements[16]. This implicitly assumes that MSC requirements drive, or at least are a reasonable proxy for, switch site costs. However, switch site costs are also significantly driven by the need to house non-remote RAN equipment, which is not utilised by donor conveyance calls. The 40% assumption therefore overstates the switch site resource required by such calls. Ofcom’s model suggests that on average over the period 2013/14 to 2015/16, only 64% of the switch site resource allocated to voice is driven by MSCs and MGWs[17]. Three therefore submits that the 40% assumption for switch site resource should be reduced to 40% x 64%[18]. Three calculates that this will reduce the modelled cost in 2013/14 prices from 0.078ppm[19] to 0.073ppm.

Question 5: Do you agree with our analysis of an efficient cost level? If not, please explain why you disagree.

[12] Or, if ‘call trap’ has been implemented and a look up is performed on ported and non-ported calls, are not additional to the provision of portability.

[13] Additional Conveyance Costs are defined in GC 18.5(a) as: “…*any costs incurred by the Donor Provider associated with resources used in:*
i) effecting the switch-processing required to set up each ported call; and
ii) providing the switch and transmission capacity for any part of the duration of each ported call,
additional to the costs of conveyance of non-ported calls from the Donor Provider’s network to the Recipient Provider’s network.”

[14] Any transit and interconnect cost in excess of that incurred when conveying a non-ported call between donor and recipient would fall under the definition of Additional Conveyance cost and would be precluded.

[15] See the 12 April 2010 Letter.

[16] Cells F142:F143 and F216:F217, RFs, 6 - DCC

[17] Calculated as a proportion of the total footprint requirement (in floorspace units) attributable to voice (i.e. MSCs plus MGWs plus the voice share of BSCs and RNCs) that is attributable to MSCs and MGWs (rows 663 to 718, Network design - other, 2 - Network).

[18] Cells F142:F143 and F216:F217, RFs, 6 - DCC

[19] See Ofcom’s calculation of the “cost of donor conveyance (nominal prices)” at Table 4.1 of the Consultation.

In Three's view, Ofcom's proposed DCC level should as a minimum be adjusted to take into account a further reduction for on-net origination. As noted above, in Three's view, a downwards adjustment relating to switch site resource should also be made. Three's observations on the relevant cost standard set out above should also be taken into account.

Question 6: Do you agree with our view that a DCC should not be charged on on-net originated traffic? Are there material obstacles to levying DCCs on only off-net originated calls to ported numbers? If so, what are those obstacles and what would be necessary (including the scale of likely costs) in overcoming them?

Yes, as mentioned above, Three agrees with Ofcom that a DCC should not be charged on on-net originated traffic. However, there are material obstacles to levying DCCs on only off-net originated calls to ported numbers since as Ofcom also notes at para. 4.74 of Consultation "*some MCPs remain unable to distinguish on-net originated donor conveyance traffic from total donor conveyance traffic.*" [**CONFIDENTIAL**]. In Three's view, it would be inefficient for mobile operators to incur the avoidable billing development costs required to fix this issue. Three's preferred solution would be for Ofcom to make a simple adjustment to the DCC level to account for on-net originated calls. Three notes that this approach would be in line with Ofcom's preliminary view in April 2010, when applying GC18 to historical DCC periods. To address the same anomaly of a DCC applying equally to both on-net and off-net originated calls, Ofcom recommended the level of charge be "*revised downwards to reflect the fact that there should have been no cost recovery on on-net originated calls*."[20]

Question 7: If an adjustment were to be made to the DCC to account for the fact that it is charged in practice on on-net originated traffic, do you agree with our proposed value for the adjustment factor of 70%? If not, please explain why you disagree.

Yes. Three agrees with Ofcom that it would be reasonable to apply an on-net traffic adjustment to the DCC results.[21] In Three's view, such a downwards revision should be made by Ofcom to ensure a fairer, more appropriate, efficient DCC is levied by operators. Ofcom's draft direction should be amended to reflect this.

Regarding the level of such adjustment, Three notes that whilst Ofcom proposes an adjustment of 70% in the Consultation, Ofcom suggests an adjustment of 67% should be made:

> *"4.81 The information provided by the MCPs is incomplete and some of the evidence varies materially over time. However, a weighted average (using the most recent evidence on donor conveyance traffic volumes as weights) of the values explained in paragraph 4.72 produces an estimate of around 33% of total donor conveyance traffic being on-net originated."*

As it is unclear to Three why this figure should be rounded up to 70%, Three requests that Ofcom explain why an adjustment of 67% has not been applied.

Question 8: Do you agree with the period over which we are proposing to set a DCC? If not, please explain why you disagree.

---

[20] See para. 11 of the 12 April 2010 Letter.

[21] As Ofcom notes at footnote 56 of the Consultation, "*this would ensure that only the costs of 70% of total donor conveyance traffic are recovered through the DCC*" and apply a DCC to the base of call minutes "*including on-net as well as off-net originated traffic*."

Three welcomes Ofcom's proposal to set a maximum DCC until 31 March 2016.

Three is however concerned about the absence of any mechanism to address the period following 31 March 2016. In light of the circumstances which led to Three's DCC dispute and the current review, and almost six years having passed since Ofcom last set an industry-wide DCC level, Three is concerned that commercial negotiations aiming to set cost-oriented DCC levels could again fail in the period following 31 March 2016. In Three's view, this is an important consideration as further adjustments may be needed from time to time. By way of example, the 2011 MCT model inputs on which Ofcom's current proposals are based will soon be replaced by a revised 2015 MCT model (likely to be finalised by early 2015). This may require updates to be made. Three's preference would therefore be for Ofcom to review and determine on a more regular basis the appropriate level of DCC. At the very least, Three requests that Ofcom regularly monitor the DCC to ensure compliance with GC18 in the period following 31 March 2016.

Question 9: Do you have any comments on the wording of the proposed direction in Annex 5 or our view that it satisfies the legal tests set out above?

Three notes that paragraph 5.3 of the Consultation mentions that "*the maximum DCCs that would be set by way of paragraph 1 of the draft direction therefore <u>only apply</u> to to off-net originated traffic (see the definition of a "Call" in paragraph 3)…"[emphasis added].* Three understands from this that Ofcom only intends the DCC rates set out in the draft direction to apply to off-net originated traffic. Three agrees with Ofcom that a DCC should not be charged on on-net originated traffic but is concerned that the draft direction will not have this effect in practice. As highlighted above, certain operators [**CONFIDENTIAL**] are currently simply unable to separate off-net and on-net originating traffic. As Ofcom's proposal wrongly assumes such separation is possible, Three is concerned that contrary to Ofcom's intention, operators will incorrectly apply a DCC rate of 0.039ppm (or any revised rate Ofcom should consider appropriate in light of Three's comments above) to on-net originated traffic. Three considers the best available solution to remedy this practical challenge is Ofcom's alternative proposal of applying an adjustment factor to the level of the DCC to account for on-net originated traffic, reducing the DCC level. If such an adjustment is made, Three also supports Ofcom's linked proposal to amend the draft direction by deleting the words *"other than the mobile network of the donor provider" from the definition of "Call" in paragraph 3* …" [22] This simple adjustment would ensure a more efficient, swift outcome for operators and overcome current billing difficulties.

Additional comments from Three:

<u>*Correction to Paragraph 2.3 and 4.6 of the Consultation*</u>*:* By way of correction, Three notes that Ofcom's "onward routing" descriptions at paragraphs 2.3 and 4.26 of the Consultation do not accurately describe the current implementation of onward routing for mobile voice traffic. In particular, no such routing enquiries are exchanged as described between the donor MCP and recipient MCP. Instead, the donor MCP enquires its local database only to determine whether and, if so, to whom the number called has been ported and then routes the call to a recipient MNO accordingly. The descriptions in Annex 1 are however correct.

[22] See footnote 61 of the Consultation.