

Consultation response form

Please complete this form in full and return via email to 070marketreview@ofcom.org.uk or by post to:

070 market review team
Competition Group
Ofcom
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Consultation title	Personal numbering: Review of the 070 number range
Full name	Merve Sahin, Aurélien Francillon
Contact phone number	
Representing (delete as appropriate)	
Organisation name	EURECOM
Email address	✂
We will keep your contact number and email address confidential. Are there any additional details you want to keep confidential? (delete as appropriate)	Nothing
For confidential responses, can Ofcom publish a reference to the contents of your response?	Yes

Your response

Question 3.1: Do you agree with our provisional conclusion regarding market definition? Please provide reasons and evidence in support of your views.	Confidential? – Y/N
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<p>Question 3.2: Do you agree with our provisional conclusion regarding SMP? Please provide reasons and evidence in support of your views.</p>	<p>Confidential? – Y/N</p>
<p>Question 4.1: Do you consider that the cost of the proposed control is proportionate to the identified harm to consumers arising from this range? If not please give your reasons.</p>	<p>Confidential? – Y/N</p>
<p>Question 4.2: Do you agree with our proposal for a three-month implementation period? If not, please explain why.</p>	<p>Confidential? – Y/N</p>
<p>Question 4.3: Do you agree that our proposal to implement a charge control on 070 TCPs in the form of a benchmark rate is appropriate? If not, please explain why.</p>	<p>Confidential? – N</p> <p>Yes. We believe that as long as this number range remains high-cost, it will continue to be abused by fraudsters.</p> <p>In fact, as part of ongoing unpublished research [1], we have been collecting the phone numbers that are advertised by the so-called “international premium rate” number providers. Since January’16, we observed 1539 UK phone numbers being advertised. 1098 of them are part of “supplementary services”, where 948 numbers belong to “Personal Number Services”. We also observed almost a hundred test calls to such UK PNS numbers, aiming for fraud. Thus, we believe that the 070 range is frequently abused for International Revenue Share Fraud (IRSF) [2]. The lack of charge control on this number range is likely to facilitate the abuse: High termination rates mean</p>

hijacks on this number range are more likely and there is not much Ofcom can do against this type of abuse in the international wholesale market other than addressing the unusual charge level.

In addition, in a previous research [3] we identified that 07x numbers were misused by scammers abroad to disguise as UK based services. A consumer in UK may be more confident to call a national number rather than a (e.g.) Nigerian number, and may fall for a scam. This number forwarding mechanism makes such scams too easy to mount. We also found that only 4 operators were responsible for more than 90% of fraud related numbers, and they offer cash back mechanisms to pay the registrant for each incoming call. A stricter enforcement of this practice could help reduce such abuses.

However, we understand that prohibiting revenue share on 070 numbers is not a definitive solution due to the difficulty of supervision and lack of due diligence between operators and resellers.

Moving the personal number service to a different number range might help consumers to better distinguish the numbers and decrease their likelihood of falling for scams. However, as long as the termination rates remain variable and high, fraudsters will continue to abuse these numbers for IRSF and other scams.

We believe that in some cases 070 numbers can be directly replaced with regular premium numbers. The net advantage is that those numbers are typically not reachable from abroad, and are in a well-known range (which avoids confusion).

However, we do not have a complete understanding of the UK phone ecosystem and habits, and we cannot therefore comment on the impact of such a change.

<p>Question 4.4: Do you have any further comment on our proposals for regulating 070 termination rates? Please provide reasons and evidence in support of your views.</p>	<p>Confidential? – N</p> <p>Terminating 070 calls would be expensive for the TCP, if the user is redirecting the call to an international or long distance phone number. We think that restricting the redirection numbers to domestic lines would be useful as the TCP will not have to worry about the huge termination costs anymore. This would only affect one legitimate use case of 070 numbers (international roaming), but this use case can easily be substituted with traditional call forwarding, OTT-<i>in</i> services (e.g., Skype-in), VoIP (DID) numbers and so on.</p>
<p>Question A9.1: Do you agree with our approach to estimating the cost of providing a 070 service? Please provide reasons and evidence in support of your views.</p>	<p>Confidential? – Y/N</p>

[1] M. Sahin, A. Francillon. Exploring International Revenue Share Fraud via Number Providers. (unpublished draft)

[2] M. Sahin, A. Francillon, P. Gupta, and M. Ahamad. SoK: Fraud in telephony networks. (EuroSP'17). http://www.s3.eurecom.fr/docs/eurosp17_sahin.pdf

[3] A. Costin, J. Isacenkova, M. Balduzzi, A. Francillon and D. Balzarotti. The role of phone numbers in understanding cyber-crime schemes. (PST'13) http://www.s3.eurecom.fr/docs/pst13_phones.pdf

Also see:

J. Isacenkova, O. Thonnard, A. Costin, A. Francillon, D. Balzarotti. Inside the SCAM Jungle: A Closer Look at 419 Scam Email Operations. EURASIP Journal on Information Security, 2014 http://www.s3.eurecom.fr/docs/eurasip_jelena_2014.pdf