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6 June 2019

Dear Adrian,

### **Promoting trust in telephone numbers**

TalkTalk welcomes the opportunity to comment on Ofcom's first consultation on promoting trust in telephone numbers.

In overview, Ofcom proposes the establishment of a common numbering database to address the following areas:

- the development of technical measures to better protect consumers from nuisance and scam calls as IP-based services become widely adopted.
- make the routing of calls to ported numbers more reliable and efficient;
- make it easier for phone companies to action porting requests through new automated processes; and
- support improvements and efficiencies in number management.

The introduction of a common numbering database has many potential benefits although they need to be quantified along with potential implementation and running costs. It is very important that an Ofcom decision of this magnitude and impact on industry is underpinned by a robust cost-benefit analysis which clearly shows a positive net present value. We believe that the perceived benefits of a common numbering database need closer scrutiny.

With regard to the discussion around CLI spoofing, TalkTalk has been at the forefront in tackling scam- and nuisance calls for many years in the UK. We were the first network

operator to implement network-level blocking of calls with incomplete or invalid CLIs for both UK and internationally originated calls using the technical capability of our IP network. Even today, we do not believe that legacy TDM network operators are able to replicate this blocking methodology in their networks.

At the same time, TalkTalk has worked closely with Ofcom and industry to develop and implement further measures in this area. Whilst much has been achieved, we agree with Ofcom's assessment that the problem of CLI spoofing is growing and that it is very difficult to identify a call with an unauthorised CLI (yet one that is complete and accurately formed) within the current framework of UK numbering management.

The key challenge with CLI spoofing is that most of these calls originate from abroad. We believe that only a small proportion of such calls originate in the UK. This observation is important because the envisaged implementation of STIR<sup>1</sup> technology in the UK would only help with the authenticating calls from UK phone numbers. STIR would not be assisting with the authentication of internationally originated calls and, therefore, not be useful in addressing the vast bulk of the CLI spoofing problem.

Ofcom does recognise that *"implementing STIR will not eliminate all nuisance and scam calls, and further work may be needed in applying it across all types of calls - for example, in authenticating non-UK phone numbers such as international calls."*<sup>2</sup> However, Ofcom then goes on to assert that STIR has *"the prospect of making a very significant contribution to providing assurance about the identity of the caller."*<sup>3</sup> We are not convinced that this is really the case. STIR would really only address a very small proportion of the problem with CLI spoofing: incidents when CLIs are spoofed from UK phone numbers.

We do agree that the introduction of STIR would be facilitated by a common numbering database. That is not the same, however, as saying that the introduction of common numbering database would be an effective tool to address the problem of CLI spoofing. Given that the majority of CLI spoofing appears to take place on international calls rather than domestic calls (as stated above), the evidence does not support the introduction of common numbering database as an effective tool to address CLI spoofing.

We would suggest that a much more cost-effective solution to the CLI spoofing problem would be for network providers to block all ingress calls with UK Network Numbers from International Carriers. Whilst we understand that this would prevent the re-filing of UK originating traffic via international transit carriers, we believe that on balance this would be a mutually beneficial and effective solution.

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<sup>1</sup> Secure Telephone identity Revisited standard

<sup>2</sup> Ofcom consultation document, paragraph 3.18.

<sup>3</sup> Ofcom consultation document, paragraph 3.18.

With regard to the discussion around number portability, Ofcom also considers that a common numbering database would be able to support a significant change to the UK number porting regime based on direct call routing. This is, as far as we can tell, a separate argument to the issue about tackling CLI spoofing.

As Ofcom points out, the UK was one of the first countries in the world to introduce number portability in the 1990s. The current porting regime with call routing via the donor network is now arcane compared to virtually all other countries which have implemented central numbering databases. It is indeed important to face into the fact that the UK porting regime is less efficient compared to other countries, e.g. as a result of the use of range holder routing. There is also a need to carry out a more holistic review of number porting and how the process can be better aligned with access line changes such as provision, cancellation, cessation and home moves (where address changes require a change of phone number) as well as with emergency services database imports and exports.

Even though number portability may require reform, it is nonetheless vital that the introduction of common numbering database is underpinned by a solid cost-benefit analysis that shows a positive net present value as would be expected for any regulatory policy decision of this nature. Such an analysis would need to include an assessment of whether it is indeed cheaper or simpler to introduce direct routing particularly in an IP network environment.

As mentioned in the consultation document, Ofcom has previously sought to introduce a common numbering database but its decision was overturned on appeal by the Competition Appeal Tribunal. The main reason for this judgment was that Ofcom's previous decision could not be justified based on a robust cost-benefit analysis. In reaching its previous decision, Ofcom estimated that the common numbering database would entail implementation expenditure of £73.5 million in capital and recurring operating costs of £2.7 million per annum.<sup>4</sup> We are not able to provide any up-to-date cost estimate but it is likely to be significant even if it is based on distributed ledger technology.

We would also emphasise that the migration of the current porting processes to a new common numbering database would be complex to synchronise across all providers. The likelihood of a staggered migration as providers develop readiness to consume the new solution would introduce a difficult hybrid model where some providers are using the new technology whilst others continue to use the legacy methods. Such a situation would risk causing consumer confusion, mistrust and ultimately harm. Significant thought should therefore be given as to whether this can actually work in a satisfactory way, or whether a

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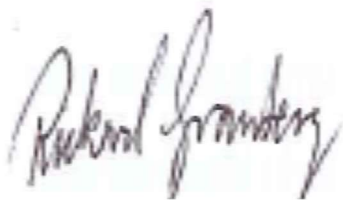
<sup>4</sup> See Competition Appeal Tribunal Judgment, Case Number 1094/3/3/08 dated 18 September 2008 at [http://www.catribunal.org.uk/files/Judgment\\_1094\\_180908.pdf](http://www.catribunal.org.uk/files/Judgment_1094_180908.pdf), paragraph 25.

'big-bang' approach (per number range) would in fact be required across all providers to avoid widespread disruption.

In conclusion, we note Ofcom's preference that it should be industry which leads the development of a common numbering database including "*the assessment of possible options and selection based on costs and capabilities etc.*"<sup>5</sup> This is a sensible approach but obviously does not remove the need for a robust cost-benefit analysis before any work is carried out particularly before any capital or operational expenditure is committed by providers in their budgets. Ofcom should commission a cost-benefit analysis by an independent external contractor as soon as possible which should engage closely and extensively with industry in the preparation of their report. Once the cost-benefit report is available, industry and Ofcom can then agree on the best way forward in this area.

Please do not hesitate to contact me should you have any questions regarding the above comments.

Yours sincerely,



Rickard Granberg  
Head of Regulation and Compliance

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<sup>5</sup> Ofcom consultation document, paragraph 6.7.