SIMWOOD
STRAIGHT-TALKING, **FORWARD-THINKING**, TELECOMS

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Ofcom
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Dear Sir or Madam,

Response to Promoting Trust in Telephone Numbers

Introduction

Simwood eSMS Limited is an alternative carrier offering managed services, voice, data, and mobile exclusively to a channel of other Public Electronic Communication Networks and Services in the UK. Simwood Inc is a Competitive Local Exchange Carrier (CLEC) in the USA and presently building out network assets in all 50 states to become an Interexchange Carrier (IXC). Both companies are wholly owned subsidiaries of Simwood Group PLC and collectively referred to here as "Simwood".

Whilst there will be elements of trade associations' responses to this Consultation that Simwood agrees with, the Office of Communications ("Ofcom") should treat this response, and only this response, as being definitive of our views.

We thank Ofcom for the opportunity to engage on the subject at hand and trust that this response is helpful. My team and I are at your disposal to discuss any matters arising.

General Views

Given the limited nature of our response, we have chosen to respond overall as opposed to answering each specific question.

We welcome Ofcom's engagement on two subjects that have been an issue for Simwood for many years; porting and CLI. However, we feel that there needs to be an element of stripping back to some basic systems analysis before leaping in with a solution before the problem has been properly defined.

Number Portability

The majority of the pain experienced by Simwood's partners (and, by extension, their end users) in porting comes from three main sources;

1. The unwillingness for many operators to comply with their obligations and the games that are played to frustrate a user's desire to port;
2. Complexity in the process: from multiple LOAs in a value chain, different processes for single line, multi-line and non-geographic, the months it takes to get a porting agreement, arguments over porting differentials, attempted fraud in the form of wholesale porting requests masquerading as End User originated etc.
3. The ability for abusers to hide behind BT's IP Exchange service and misunderstandings around it.

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From what Ofcom have so far outlined, we see no reason why a central database (or blockchain equivalent) would do anything to solve these problems in isolation.

Our reference to basic systems analysis is very pertinent here; the process is very simple;

1. Define the problem,
2. Define the desired outcomes,
3. Design a solution.

So far, we have seemingly gone into a proof of concept on Stage 3, without any detailed work being done on Stages 1 and 2.

If it were easy or obvious, or costed-in, the industry would have already solved this problem. It hasn't, despite several attempts. Therefore it is clear that a wholly different approach is required; we cannot expect a different result doing the same thing again.

We would suggest three specific courses of action;

1. Regulatory intervention is required – and much of the intervention to solve the problems we listed above would come from an amendment to the General Conditions of Entitlement or enforcement of the pre-existing rules. Ofcom will have to outline the timescales they expect a port to occur from an end user first requesting it, to it being completed.
2. The Office of the Telecommunications Adjudicator's ("OTA's") Number Portability Commercial and Process Forum should be disbanded; the inability of the group to make any meaningful progress on the significant matters affecting the industry strongly suggests that the public money (by way of Ofcom's contribution) would be far better deployed elsewhere.
3. Ofcom clarify that number ranges hosted on IPEX are within the scope of any porting agreement with BT Group, and can be ported in the usual way via Openreach. In our opinion this would remove the vast majority of issues with the current system in a stroke.

If bilateral contractual arrangements are still needed between gaining and losing providers, for example, it will still take months or years to effect a business port and the harm perpetuated today will continue tomorrow, meaning the project could only be described as an abject failure.

Without Ofcom articulating the end user experience it wishes to see, or needs to see for its statutory objectives being met, there is very little point in discussing whether or not a specific proposed technology would do the job, or if it is required at all.

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Once outcomes have been defined, as a means to resolving the operational issues, and helping the UK approximate a first-world 2019 number portability regime, we would likely favour a central database. We do not think funding the incumbent to play with shiny technology is in any way productive, however, and instead would favour engaging expertise from any one of the economies comparable to ours who have 'fit for purpose' porting regimes, and contracting with established global operators to implement a best of breed variant. Whether this process and database are then better served by blockchain is a decision that can only be made with those other issues addressed.

CLI Authentication

Other than potential improvements in call traceability which, given many of such calls originate abroad, we fail to see how CLI Authentication would address nuisance calls. A nuisance call with a certificate embedded in its signalling is still a nuisance call, after all. We are of the opinion that CLI Spoofing (keeping in mind, of course, that there are many legitimate and important use cases involved in manipulating the Presentation Number), an issue Simwood signalled long before it was acknowledged as possible, was a consequence of Ofcom's banning of Withheld calls and increasingly widespread use of ACR. GC C6 was a potential step in the right direction but the subsequent clarification of what Ofcom meant, in the face of other networks having their long-standing non-compliance with NICC guidance exposed, has all but emasculated it.

We fear that the work done to date has largely assumed residential to residential calls via vertically integrated networks such as TalkTalk customers calling Sky customers, and that thought hasn't been given to the complexities in the real world, with (legitimate) CLI Presentation flexibility, multiple transit carriers, an end user presenting the same number through multiple Originating Communications Providers, UK to UK call scenarios that may route abroad all potentially being affected.

Which brings us to the scope of STIR; if it is simply to have a mechanism for the identity of the OCP to be reliably attested, then that neither requires a central database, nor does it require significant investment for an IP (originating or terminating) network. This, on its own, would give end users the ability to make more informed decisions whether or not to accept the call.

However, just like an SSL Certificate on a website doesn't mean that the website isn't being run by fraudsters, an attested CLI isn't de facto proof of a legitimate call. Unless there is adequate trust in the system, it runs the risk of being leveraged as an all new fraud vector and causing more harm than it solves. (cf. the recent high-profile HMRC CLI spoofing incidents)

In principle, we recognise the potential for STIR to be a radical improvement (and that linking it to improvements in portability, if those improvements are justified, nearly amortises the cost across two benefits), but much more analysis is needed on precisely how it will operate, the precise problems it will solve, and the desired outcome before decisions can be made.

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We would encourage Ofcom to take the design to the next level, in consultation with the whole industry (potentially via NICC if its funding model can be modified so it isn't exclusionary to small carriers – perhaps by Ofcom diverting funds from the OTA).

We would implore Ofcom to resist newsworthy shiny technology, and instead consider the way these non-unique problems are being solved in the USA[1] and other markets before needlessly re-inventing the wheel. Number portability works there, through an independent central database, and where STIR has been implemented enhanced with SHAKEN. Where Ofcom said in 2018 it didn't expect a solution in 3 years, the FCC first consulted on SHAKEN/STIR in 2017 and it will be live in many networks in late 2019. That is in an infinitely more complicated market with many more incumbents to manage.

Yours faithfully,

Simon Woodhead FCSI
CEO, Simwood

[1] https://blog.simwood.com/2019/06/shaken-stir/