Response to Ofcom Consultation (23 February 2022): Improving the accuracy of Calling Line Identification (CLI) data.

XConnect welcomes the opportunity to respond to this consultation. We believe Ofcom's proposals are a valuable step in the authentication and validation of call traffic and we support Ofcom's objective of creating trust in numbers and protecting consumers from receiving harmful and malicious calls.

Introduction to XConnect

XConnect[1] provides a trusted global registry of network and subscriber information, based on privacy compliant phone number data, including global number portability and global number ranges/prefixes.

Established in the UK in 2005, XConnect delivers carrier-grade number information services to over 200 operators globally, including MNOs, business messaging (A2P) hubs, aggregators, carriers and interconnect providers. XConnect is an ISO 27001 certified company.

Our number information services are used for voice and message routing, fraud protection, phone number validation as well as fraud mitigation and risk scoring. XConnect also supports the deployment and evolution of next-generation communications, such as VoLTE[2] and RCS[3]. Our Number Information Services[4] are accessed through our global distributed hybrid cloud platform using simple, secure, scalable real-time protocols and APIs.

In 2020, XConnect was acquired by Somos, Inc., a USA-based company providing number information and services to over 1,400 organisations, and the trusted USA telecom sector administrator for over 3 billion numbers throughout the USA and North America. Somos helps to enable seamless communications between enterprises and consumers through the management of the USA Regulatory agency's (FCC) mandated databases including North American Numbering Plan (NANP), Toll-Free Number Administrator (TFNA) and the Reassigned Numbers Database (RND). In addition, Somos administers the USA's largest Do Not Originate (DNO) list.

Validate Caller-ID

XConnect agrees with Ofcom that this is a very important first step. We note in clause 4.20, Ofcom states that Communications Providers (CPs) should reference publicly available number allocation information held in the country from where a call is originated. ██████████████████████████████

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[1] About Xconnect: https://www.xconnect.net/about-xconnect/
[2] VoLTE - Voice over Long-Term Evolution (VoLTE) is an LTE high-speed wireless communication standard for mobile phones and data terminals
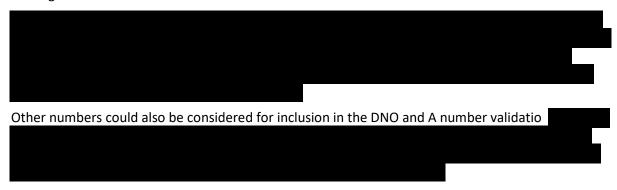[3] RCS - Rich Communication Services protocol is designed as a modern take on texting that rolls features from Facebook Messenger, iMessage, and WhatsApp into one platform
[4] About XConnect Number Information Services: https://www.xconnect.net/services

It will be an important step in the journey of restoring trust in Caller ID, not just on UK national calls, but also on internationally originated calls. Moreover, as the certification solutions for international calls are a much longer-term project, this is the first step in global CLI validation which will remain with us for quite some time.

Given the complexities in routing a call and the number of parties along a route (and the variability of CLI compliance by the originator), it should be mandated that all parties in the call path undertake validation, to include the transit and terminating operator, and thereby ensure that the objective of moving to calls the consumer can trust is achieved.

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Other numbers could also be considered for inclusion in the DNO and A number validatio ████████
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DNO

XConnect believes Ofcom is making a very important step by incorporating the concept of a DNO list into the mandatory validation process. This step echoes similar steps taken by other NRAs around the world, including the USA.

From the information provided in the supporting "Do Not Originate" document[7] provided with the consultation, we have a number of questions which we have outlined below. These questions have also raised a number of points which we believe could aid the effectiveness of the DNO list.

➢ A list of parties who have access to the DNO list will be held by Ofcom. Ofcom will approve those who request access to the list and hold their contact details in order to send routine and priority updates regarding the list.
Is Ofcom intending to include a non-disclosure agreement in this process? This additional step may help ensure the list is not provided to third parties who have not been approved by Ofcom. Moreover, a robust approval process significantly reduces the prospect of the list falling in to the hands of spammers which would severely compromise its effectiveness and raison d'être.

➢ Does Ofcom intend to be the sole administrator of the list both in terms of who has access to it and also its ongoing management? As the list of participants grows, it will inevitably require more management and resource to keep it up-to-date and Ofcom may wish to explore a more open platform. This is something Ofcom may wish to consider sooner rather than later.

➢ Is it Ofcom's intention to add further information, or different categories of information, to the list and will these additions be consulted on each time? From experiences around the world, we would suggest that the list should not be limited and therefore this is something

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[5] MSNRs, Mobile Station Roaming Number, used by mobile operators to facilitate roaming services
[6] Global Title, (GT) is an address used for routing messages within Signalling System Number 7 (SS7)
[7] https://www.ofcom.org.uk/phones-telecoms-and-internet/information-for-industry/policy/tackling-scam-calls-and-texts/do-not-originate

which should be considered now rather than cause delay in the future, when urgent changes may be required.

➢ What are Ofcom's expectations regarding how the information on the DNO list could grow and expand? For example, the information available suggests that the numbers which would be acceptable to Ofcom would only be those associated with financial institutions. There are a number of sectors who could benefit from being on the list and therefore, could substantially increase the effectiveness of the list.
For example, other information sets could include Government departments, old banking numbers such as 0845x and CPs unallocated numbers or numbers only allocated for internal use. In the USA, conferencing and numbers used for Internet advertising are in-bound only and take advantage of DNO.

➢ How often will the list be updated and how will it be made available? Will CPs be expected to check the websites for updates, or will there be a notification each time the list is amended?

➢ How many numbers/blocks will be held on the list? The link implies the quantity of numbers will be limited: is there a prioritisation criteria?

We would suggest to Ofcom that scalability should be considered in this early stage of the DNO list for several reasons:

➢ As all CPs will be expected to validate against the list, this will require management of a registry of several hundred CPs, third party solution providers and their contact details.

➢ There is the potential for hundreds of thousands of business numbers to be added, being submitted by thousands or tens of thousands of businesses.

➢ Based on enhanced use cases of the DNO, there is the potential for millions of numbers to be administered.

We would urge Ofcom to enable the list to be readily available to all entities who are associated with origination, transit or termination of a call; this should not be limited to originating CPs. As mentioned previously, it is important that Ofcom rigorously assesses each company proposed to access the DNO list; its value, effectiveness and raison d'être would be severely compromised if in the wrong hands.

The USA's experience with a DNO list is instructive and we have included information below regarding the Somos DNO service in the USA. While the DNO list in the USA is not mandated, the benefits of the DNO list have been recognised as a successful mitigation tool by the government and it continues to be used successfully in the USA. The nature of the implementation (i.e. CPs self-policing calls against the DNO list when the call is handed over) has ensured that the application of

the DNO list is undertaken by all parties to the call. We have referenced examples of enforcement below[8] with CPs reporting non-compliant behaviour.

[content redacted]

[8] https://www.fcc.gov/document/fcc-proposes-45-million-fine-apparently-unlawful-robocalls, https://www.fcc.gov/document/fcc-warns-robocall-facilitators-remove-illegal-traffic

[9] *See Advanced Methods to Target and Eliminate Unlawful Robocalls - Petition for Reconsideration and Request for Clarification of USTelecom - The Broadband Association,* CG Docket No. 17-59, Order on Reconsideration, Sixth Further Notice of Proposed Rulemaking, and Waiver Order, FCC 21-126 (rel. Dec. 14, 2021).

Annex A

USA examples of implementing a DNO list

See USA guidelines on numbers to be added/managed.

[In the USA, there are two main DNO list providers – USTelecom and Somos. The list managed by the Trade Association, USTelecom, contains mostly government numbers. While the list from Somos provides access to both Toll-Free and 10-digit local numbers. For Somos, in Toll-Free, there are Responsible Organisations [Resp Orgs] that, under the FCC rules, manage their Toll-Free Number for the end user. Resp Orgs have the ability to put certain numbers on the DNO list and they have put hundreds of thousands of numbers on it].

Other information:

https://www.telecomramblings.com/2022/03/4-ways-robocallers-will-adapt-in-2022-heres-how-businesses-and-government-can-be-ready/#more-38104

Other information for consideration:

- North American Numbering Council - Call Authentication Trust Anchor Working Group 2 (NANC-CATA) second report to the FCC. This includes references to DNO and the industry lists provided by US Telecom Industry Traceback Group (ITG) and Somos.

    o https://nanc-chair.org/docs/CATA_Report_Best_Practices_for_Terminating_VSPs_using_Caller_ID_Authentication_Information_Feb_2022.pdf

- Industry Traceback Group (ITG) Policy and Procedures include the DNO policies for Governmental Entities and Private Organisations (page 17). Additionally, DNO implementation is voluntary and subject to provider discretion (page 18).

    o https://docs.fcc.gov/public/attachments/DOC-378593A4.pdf