



Twilio's Response to the Consultation by CEPT on CLI Spoofing (Draft ECC Report 338)

18 March 2022

1. About Twilio

- 1.1. Twilio is a leading global CPaaS (Communication Platform as a Service) provider.
- 1.2. Twilio's software allows customers to communicate with their customers over all their communication channels, voice, SMS, messaging, or email thanks to the communications capacity that companies have added into applications across a range of industries, from financial services and retail to healthcare and non-profits.
- 1.3. Other customers include international brands but it should be noted that many of Twilio's customers are also small and medium-sized enterprises and Twilio's non-profit arm, Twilio.org, supports charitable organisations to deliver their communications needs.
- 1.4. As example in Europe, Twilio serves a number of global customers as well as Government organisations, with two examples set out below:
 - ING - the global financial services firm uses Twilio for their Contact centres. ING customers can live video chat with agents to get advice on critical financial decisions. This service will expand to 12+ European countries in the coming months
 - Crisis Text Line in Ireland, a free, 24/7, confidential messaging service for people in crisis, funded by the Health Service Executive (**HSE**) that quickly connects teens and adults struggling with suicidal thoughts, addiction, and other crises with counselors trained to help through a Free Text Short Code.

2. General Remarks

- 2.1. Twilio welcomes the opportunity to provide feedback on the ECC Draft Report on CLI Spoofing
- 2.2. Twilio agrees with CEPT and the ECC that the implementation of an harmonised solution can help maintain and support the full trust in numbers and CLIs. Twilio, however, notes that it is critical that any harmonised solution provides the communications ecosystem and end users with an environment that allows for innovation. As such, any harmonised solution should ensuring that the solution:
 - is compatible with IP and cloud based technology and services; and

- does not inadvertently negatively affect the ongoing progressive digitisation of the economy and industry¹.

2.3. Twilio’s comments focus on the ECC’s recommendations which include:

- an explicit prohibition of CLI spoofing, not only for operators but also for users, in national legislation;
- the further elaboration of harmonised regulatory guidelines and/or mandatory rules in CEPT countries on how to deal with CLI spoofing;
- to consider and to develop the roll-out of an European harmonised approach to call traceback (and call blocking); and
- the further analysis of technical methods such as STIR/SHAKEN, AB Handshake, SOLID, and Distributed Ledger Technology (e.g. Blockchain) with the aim of eliminating CLI spoofing

2.4. Twilio notes that CEPT has identified STIR/SHAKEN as the preferred short/medium term technical solution that member states should consider to combat CLI spoofing. In 2021, Twilio achieved full compliance with the STIR/SHAKEN protocol implemented in the USA. Twilio would, therefore, welcome the opportunity of engaging with the ECC working group to provide detailed views on Twilio’s experience with the implementation of STIR/SHAKEN in the USA in the event that ECC would find this beneficial.

3. Specific Remarks on ECC’s Recommendations

ECC Recommendation	Twilio’s Comments
Implementing explicit prohibition of CLI spoofing, not only for operators but also for users, in national legislation.	<p>Twilio believes that such a prohibition already exists for operators in the vast majority of the CEPT member states and agrees with the ECC that such a prohibition should be extended to end users.</p> <p>Twilio notes, however, that the definition of prohibited CLI spoofing should be very clear in order to ensure that lawful use cases are not inadvertently captured by such a prohibition. Such lawful use cases include the use of presentation CLIs that allows the person calling to display a different number from the number they are calling from.</p> <p>In addition, prohibiting the A-Party CLI of an</p>

¹ Please see also the progressive shift of networks to native cloud solutions such as in mobile networks with 5G

	<p>inbound international call showing a local E.164 number needs to ensure that expectations are made for legitimate use cases such as:</p> <ul style="list-style-type: none"> ● international mobile roaming; ● SIP trunking services; ● Offshore outbound call centres; and ● use of unified communications with E.164 numbers received from offshore <p>Twilio believes these points are critical in order to:</p> <ul style="list-style-type: none"> ● allow providers of communications services as well as end users to leverage on a use of CLIs that provide and protect the trust associated with numbers; and ● avoid measures aimed at combating CLI spoofing leading to unwanted consequences such as blocking of legitimate and trusted calls.
<p>Elaboration of harmonised regulatory guidelines and/or mandatory rules in CEPT countries on combating CLI spoofing and call traceback (and call blocking).</p>	<p>Twilio welcomes ECC recommendation to harmonise regulatory guidelines and rules across CEPT member states in order to:</p> <ul style="list-style-type: none"> ● provide regulatory certainty to both providers of communications services and end users; ● avoid the risk of the development of a fragmented regime that increases costs and disrupts cross border service provision. <p>Twilio believes it is particularly important that such guidelines do not become an obstacle to the full transition of legacy networks and services to IP and cloud solutions. In particular, ECC should ensure that the guidelines and rules:</p> <ul style="list-style-type: none"> ● do not contain a blanket prohibition on inbound international call showing a local E.164 number as a CLI; ● harmonise how presentation CLIs can be used across all the CEPT member states.

<p>Further analyses technical methods such as STIR/SHAKEN, AB Handshake, SOLID, and Distributed Ledger Technology (e.g. Blockchain) with the aim of eliminating CLI spoofing.</p>	<p>Twilio fully agrees with the proposed criteria but it also strongly believes that these should also include other criteria such as:</p> <ul style="list-style-type: none"> ● minimising the impact on IP networks and cloud based services, this is critical not just for a cloud based communication services provider such as Twilio but also mobile network operators that are heading towards fully native cloud based systems and services; ● ensuring alignment with changes to numbering rules and considering the need to reform national numbering plans to allow a less restrictive nomadic use of numbering resources; ● minimising the operational impact on smaller providers thus avoiding that the agreed solution becomes a barrier to entry; and ● avoiding rules that artificially and unnecessarily bar service innovation
<p>Coordinated roll-out of the chosen technical approach in CEPT countries.</p>	<p>Twilio fully supports a co-ordinated approach to the roll-out of a chosen technical solution in order to:</p> <ul style="list-style-type: none"> ● avoid the risk of unnecessary variations at national level and the extra operational costs this entails; and ● ensure best practices are leveraged upon and implemented.