



# anti-spoofing and robocall solutions

## The impact of robocalling and spoofing

With the rise of telemarketing and other unwanted calls, caller ID can serve a useful purpose in alerting consumers to the number that is calling on their phone's display. If you recognize the number, you can answer. If you don't recognize the number, you can decide whether to answer or not. However, that decision is taken out of your hands if someone has manipulated the caller ID to look like a familiar number or one with a local area code.

Known as 'spoofing,' the technique can also mislead people by displaying a text string such as "Free Money," or provide a freephone number that cannot be traced to the originating call center. The problem has been severely compounded in recent years with the many advances in VoIP technology, which allow a massive number of phone calls to be initiated very cheaply and where the calling party can select what appears on the caller ID. These tactics resulted in the exponential growth of illegal spam and scam calls globally.

However, spoofing can cause more harm than just mere annoyance. Criminals use spoofing to present themselves as something they are not, such as impersonating law enforcement, financial institutions, schools, creditors or other entities to obtain sensitive personal data or extract credit card "payments" and wire transfers, defrauding consumers for billions each year. Wangiri calls, where the number rings once and displays a premium number to call back, is usually a spoofed call and is a top ranked robocalling fraud in many countries.

## What is being done?

Spoofing is illegal in many countries but fines and prosecution have so far been unsuccessful in stemming the tide. Because of the growing consumer outcry, regulators in many countries around the world are taking more decisive action to halt the practice and protect consumers.

Academic researchers and leading telecom associations such as the Internet Engineering Task Force (IETF) and the Alliance for Telecommunications Industry Solutions (ATIS), working jointly with the SIP Forum, have been developing solutions to help the industry mitigate illegal robocalling and spoofing.

Together with industry leaders such as iconectiv, an authoritative partner of the communications industry for more than 35 years, ATIS and the SIP Forum developed SHAKEN (Signature-based Handling of Asserted information using toKENs), a set of specifications that provides a framework for service providers to implement new certificate-based anti-spoofing measures.



## multi-key verification breakthrough

An ATIS/SIP Forum solution, SHAKEN uses encrypted digital signatures for each call that provides authentic and more complete information to the terminating service provider about the calling party. SHAKEN gives service providers the tools needed to sign and verify calling numbers as well as where the call originates. This information will be used by call blocking and analytics applications to determine what to do with the call and enables consumers to know, before answering, that the calls they receive are from legitimate parties.

The United States and Canada are the first countries in the world to announce they will be deploying the SHAKEN framework. The solution is expected to be in place in 2019 and iconectiv has been selected to serve as the Secure Telephone Identity Policy Administrator (STI-PA) for the United States.

## Ready for implementation

Uniquely positioned to lead in the mitigation of spoofing and robocalling, iconectiv's core competencies including highly scalable industry database management, numbering services (the company will soon serve as the U.S. Local Number Portability Administrator), third-party authentication and network fraud prevention for the telecommunications industry.

Part of the iconectiv Trusted Communications portfolio, this anti-spoofing solution allows, Caller ID information to be authenticated and the origin of the call captured and securely conveyed between service provider networks. Together, these will make a significant difference in reducing illegal robocalls and ensuring that consumers have the information they need to make an informed decision as to whether or not to answer a call.



## To find out more:

If you are a service provider, enterprise or partner who wishes to establish a trusted environment for subscribers to communicate with commercial entities, contact us to learn more.

### about iconectiv

iconectiv provides authoritative numbering intelligence to the global communications industry. Our market-leading solutions enable the interconnection of networks, devices and applications for more than two billion people every day who count on a simple, seamless and secure way to access and exchange information. With 35+ years of experience and more than 5K customers worldwide, iconectiv has intimate knowledge of the intricacies and complexities in creating, operating and securing the communications infrastructure for service providers, regulators and enterprises. Our solutions span network and operations management, numbering, registries and fraud prevention. For more information, visit [www.iconectiv.com](http://www.iconectiv.com).

### make the connection.

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