



# Authenticate Caller ID with Digital Certificates

If you want to implement STIR/SHAKEN you will need a nationally approved Certification Authority (STI-CA)

## Background

Illegal robocalls and fraudsters who spoof (change the caller ID) to look like a neighbor, local business, trusted brand, or even a government entity are responsible for an estimated \$10 billion per year in losses. Subscribers have lost trust in the phone as a key communication channel and 76% don't answer a call if they're not certain who's on the other end of the line.

To put a stop to robocalls, Congress stepped in and passed the TRACED ACT which mandates voice service providers implement a caller ID authentication technology called STIR/SHAKEN by June 30, 2021.

STIR/SHAKEN is a set of industry-developed protocols that address illegal caller ID spoofing (using digital certificates) and help restore trust in phone calls. A key security component of the SHAKEN framework is a Certification Authority (STI-CA).

### CALLER ID AUTHENTICATION

- Comply with the TRACED Act
- Accept Certificate Signing Requests (CRS) and issue standards-compliant SHAKEN signing certificates, including the Telephone Number Authorization List (TNAAuthList) extension
- Supports the latest STIR/SHAKEN standards
- Full portfolio of trusted call solutions
- Organization is built to support the needs of the industry's largest carriers
- Neustar is a recognized, credible thought leader

## Why Do You Need a Certification Authority?

To participate in the STIR/SHAKEN ecosystem, the Originating Service Provider (OSP) is required to obtain a digital certificate from a Certification Authority. An OSP uses their certificate credentials to sign (authenticate) calls originated from their subscribers so the recipient can then verify that the caller ID has not been spoofed.

A Certification Authority is a trusted 3rd party, approved by a national Policy Administrator (STI-PA), that issues digital SHAKEN certificates to carriers wishing to authenticate calls.

## How Does a Certification Authority Fit Into the Shaken Framework?

The Secure Telephone Identity Governance Authority (STI-GA) was established to put call authentication into action in the United States and ensure the effective use and security of digital certificates. As part of the certificate management infrastructure set up by the STI-GA, the STI Policy Administrator (STI-PA) was formed to ensure that certificates are only made available to authorized service providers. A Certification Authority is approved through the STI-PA to issue certificates to authorized service providers.

As an STI-PA approved Certification Authority, Neustar plays an integral role in the U.S. governance and certificate management infrastructure in support of caller ID authentication. As an approved Certification Authority, Neustar performs security functions to maintain the integrity of the SHAKEN framework, including ensuring requestors of certificates are authorized and that their credentials can be validated with the STI-PA. Digital certificates are then issued and managed by the Certification Authority.

## Partner with a Standards Leader and Approved Certification Authority

**Neustar Certificate Manager** is part of our leading Certified Caller portfolio. Our solution suite provides service providers with a comprehensive, integrated solution that was developed in accordance with the STIR/SHAKEN specifications.

### Supports the latest STIR/SHAKEN standards

- Acceptance of SHAKEN Certificate Signing Requests (CSR) for new certificates
- Automated validation of Service Provider Code (SPC) Tokens
- Issuance of standards-compliant SHAKEN signing certificates, including the required Telephone Number Authorization List extension
- Revoking certificates if needed and notifying the STI-PA
- Optionally, publishing of certificates to a hosted STI-Certificate Repository
- Processing of Certificate Signing Requests to renew certificates before they expire

**Full portfolio of trusted call solutions**

- Neustar offers a set of integrated, market-leading solutions for service providers and enterprises.
- Neustar Certified Caller and Certificate Manager are integrated with other Neustar Trusted Call Solutions to deliver better subscriber call experiences and support business communications.
- Neustar Robocall Mitigation combines behavioral analytics with caller and network intelligence to help accurately identify illegal robocalls and caller ID spoofing.

**Organization is built to support the needs of the industry's largest carriers**

- No other CA has the scale and credibility to manage needs of all carriers.
- Neustar agile teams have successfully led more STIR/SHAKEN implementations than anyone else in the industry.
- Offers 24/7 support from industry experts, and often provide near real-time updates (hours and single digit days) in support of customer needs.

**Neustar is a recognized, creditable thought leader**

- Given Neustar's legacy role in providing critical services to the telecom industry, Terminating Service Providers (TSP) in the SHAKEN ecosystem validate an OSP's certificate with Neustar, a proven trusted vendor in the communications industry.
- Voting ATIS member working closely with critical stakeholders we actively participate in making contributions and driving standards changes in support of our customers' needs.
- Co-author of the STIR Certificate Management standards (RFC 8226) and continues to drive standards.
- Direct certificate authority experience since 2014 as the administrator of the Canadian NPAC as well as our role as the exclusive host of the ATIS industry testbed.

**LEARN MORE**

If you have any questions about our certification authority services, please call us at **1-855-898-0036** or submit a **Contact Us** form.