

# A Checklist for Communications Service Providers (CSPs) Implementing STIR/SHAKEN

STIR/SHAKEN are industry-developed protocols designed to combat illegal call spoofing by verifying caller identity. Voice service providers must implement STIR/SHAKEN call authentication by June 30, 2021, as mandated by the U.S. federal TRACED Act and an order from the Federal Communications Commission (FCC).

To implement STIR/SHAKEN, the Secure Telephone Identity (STI) governance model designates roles, responsibilities and processes for verifying calling numbers and the exchange of call “signatures”. Whether your organization is just beginning the process, or you are well on your way, this checklist of steps will help ensure you have everything in place for a successful deployment.

## STIR/SHAKEN IMPLEMENTATION CHECKLIST

### PREREQUISITES

<input type="checkbox"/>	<b>1. 2020 FCC 499-A Form</b> – The 499-A annual reporting worksheet is used to determine required contributions to the Universal Service Fund. Carriers must have an up-to-date 499-A form on file with the FCC.
<input type="checkbox"/>	<b>2. Valid OCN</b> – An Operating Company Number (OCN) is the 4-character identification assigned to every North American phone company by the National Exchange Carrier Association (NECA). An OCN is required to obtain a TOKEN in the STIR/SHAKEN ecosystem.
<input type="checkbox"/>	<b>3. Access to U.S. Telephone Numbers</b> – Carriers must have direct access to telephone numbers from the North American Numbering Plan Administrator (NANPA) and/or the National Pooling Administrator.

### SETUP

<input type="checkbox"/>	<b>4. Register with the Policy Administrator</b> – To take part in the STIR/SHAKEN ecosystem, carriers must register with the Policy Administrator (STI-PA) who verifies the identity of the carrier to ensure they are eligible to participate. The current STI-PA is iconectiv.
<input type="checkbox"/>	<b>5. Select a Certification Authority</b> – Carriers must select which Certification Authority they will work with to request certificates. The STI-CA ensures requestors of certificates are eligible and that their credentials are validated with the STI-PA. Neustar is an STI-PA approved Certification Authority.
<input type="checkbox"/>	<b>6. Obtain a SPC TOKEN</b> – Carriers request a Service Provider Code (SPC) Token from the STI Policy Administrator (STI-PA) for one of its assigned Operating Company Numbers (OCNs). The Token includes the carrier’s OCN and/or Service Provider Identifier (SPID) and enables them to then request a certificate.
<input type="checkbox"/>	<b>7. Request a Certificate</b> – To be able to digitally sign and authenticate calls, a carrier must obtain a certificate from an approved Certification Authority (STI-CA). To request a certificate, the carrier sends a certificate signing request (CSR) to the Certificate Authority with its associated SPC Token. Neustar is an STI-PA approved Certification Authority.

## TESTING AND IMPLEMENTATION

<input type="checkbox"/>	<b>8. Implement STIR/SHAKEN software</b> – Deploy all necessary software services that perform core functions associated with the STIR/SHAKEN specification (STI-AS, STI-VS, SP-KMS, SKS, SI-CR).
<input type="checkbox"/>	<b>9. Perform Internal Testing</b> – It is important that carriers test their calls in a lab environment before deploying in a live network. Internal testing provides an opportunity to ensure hardware and software are configured properly to avoid wasting resources and causing service disruptions.
<input type="checkbox"/>	<p><b>10. Test Network</b> – To begin testing between networks, carriers should start by focusing on calls that originate and terminate within their own network to validate that authentication and verification services are working correctly. Next, they should expand to testing calls with other providers.</p> <p>If you are a Neustar Certified Caller customer, you can use our User Acceptance Test (UAT) environment. For non-Neustar Certified Caller customers, the ATIS Robocalling Testbed, hosted by Neustar, is an interoperability test facility where qualified carriers and manufacturers can validate the effectiveness of caller authentication standards (SHAKEN).</p>

## OPERATIONAL SUPPORT AND TRAINING

<input type="checkbox"/>	<b>11. Operational Support &amp; Training</b> – To deliver a new capability at scale, a Service Provider needs to transition network management activities from Engineering to the Operations team and update systems and processes. Customer education will be imperative, so they understand how to interpret new messages and alerts appearing on their device.
--------------------------	--

## What's Next for Call Authentication?

It is essential to stay up to date with the latest call authentication regulations and standards. STIR/SHAKEN utilizes a combination of technical, legal, and behavioral analytics solutions and is an evolving process that continues to be refined to address the dynamic needs of the marketplace. Upcoming improvements are expected to include the support of non-IP networks, enterprise multi-carrier implementations, and standards for how attestation is displayed on devices.

*"Do as much testing as possible. It's very effective, and then you'll be ready to effectively exchange traffic when you're going live."*

## Why Neustar?

As the co-author of the IETF STIR standards, Neustar plays a continuing and vital role in the governance structure for STIR/SHAKEN. We are a contributor to the ATIS SHAKEN technical standard, as well as Canada's Network Working Group (NTWG) on Caller ID authentication. We're also exclusive host of the ATIS Robocalling Testbed, and an authorized Certification Authority.

A neutral information service provider, a leader in caller ID services, and an expert in call authentication, we deliver a full suite of integrated, market-leading trusted call solutions.

### – Linda Vandeloop

AVP of External Affairs/Regulatory at AT&T, and the Chair of the Secure Telephone Identity Governance Authority Board (RCR Wireless – July 2019)

LEARN MORE

For more information, visit [www.stirshaken.neustar](http://www.stirshaken.neustar).