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Martini Security

June 2022 Becoming STIR/SHAKEN Compliant

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Executive Summary

As announced by the FCC on December 10th, 2021, the FCC has shortened the STIR/SHAKEN implementation extension for all small non-facilities-based voice services providers to June 30th, 2022.

As of the time of publication of this document any company operating as an OTT (over the top) service provider is required to implement STIR/SHAKEN by June 30th of this year.

This aggressive deadline has left many service providers scrambling to determine what steps they need to take to prepare their network to be compliant for STIR/SHAKEN, and information regarding what steps to follow can be difficult to find publicly online.

The purpose of this document is to de-mystify the STIR/SHAKEN implementation process and create a simple summary of the steps that providers need to follow to become STIR/SHAKEN compliant.

DISCLAIMER: All details presented in this document are for informational purposes only and do not constitute any form of legal or regulatory advice.

Do these Requirements Apply to my business?

A common misconception amongst OTT service providers is that if your upstream carrier is providing attestation for all your outbound traffic, you can qualify yourself as having Complete STIR/SHAKEN implementation with the FCC.

This is incorrect.

If the following is true you must implement STIR/SHAKEN:

- Your company is enabling two-way voice services to end-users and completing calls to the PSTN
- Your company is operating its own SBC (Session Border Controller) and/or PBX (Private Branch Exchange) that is routing phone calls to end-users.

You are required to implement STIR/SHAKEN into your network and obtain your own STIR/SHAKEN certificate. This is a process that starts with contacting the STI-PA to register and receive a token that is unique to your company.

If you are operating as a switchless service provider, that is, a business that is not operating their own SBC and/or PBX, we recommend that you reach out and seek legal and/or telecom compliance consultation regarding how to file with the FCC.

What is a Complete STIR/SHAKEN implementation?

Before diving into the steps, it's important to understand what your actual end goal is as a voice services provider. Complete STIR/SHAKEN implementation means that your business has completed the following steps:

- You have registered with the STI-PA, iconnectiv, and received your own unique token as an authorized service provider
- You are providing attestation for all outbound calls sent from your voice network and attesting calls using your own STIR/SHAKEN certificate
- You have registered in the Robocall Mitigation database with all required information as mandated by the FCC

Without all three steps completed, your business will not be able to attest to complete STIR/SHAKEN implementation with the FCC. In addition, if you do not implement STIR/SHAKEN, your calls may be blocked by terminating carriers or marked as potential spam.

Becoming STIR/SHAKEN Compliant

Step 1: Registering with the FCC

| Estimated time to complete: 1-2 days |

If you are a new voice service provider, you will first need to register with the FCC by obtaining an FRN and submitting a filing in the Robocall Mitigation Database.

A filing in this database is required by the FCC and must note what is being done by your company to stop illegal robocalls from originating on your network, along with details regarding your current STIR/SHAKEN implementation status.

- You can apply for an FRN here: <https://apps.fcc.gov/coresWeb/publicHome.do>
- Instructions for Robocall Mitigation Database Filings can be found here: <https://www.fcc.gov/sites/default/files/rmd-instructions.pdf>

Step 2: Registering for a 499 ID / Becoming a 499 Filer

| Estimated time to complete: 2-4 days |

Your STI-PA Authorized Service Provider application will require your business to have a current 499-A9 form on file with the FCC and be registered with the USAC. Before beginning the registration process, you will need to make sure that you are able to provide the following information:

- FCC Registration Number (as detailed in the previous step)
- Employer Identification Number (EIN) or Tax ID Number
- Contact Information for your company and company officers
- Contact information for the person who will be designated as the DC Agent for Service of Progress

More information regarding the 499 ID Registration Process can be found at the USAC's website.

As with all tax-related items, your business may want to seek professional consultation before filing.

Step 3: Acquiring an Operating Company Number (OCN)

| Estimated time to complete: 1-2 weeks |

Your STI-PA Authorized Service Provider application will also require you to have an OCN (Operating Company Number) that has been assigned by NECA (National Exchange Carrier Association).

If you are operating as an OTT voice services provider, you will likely want to apply to NECA as an IPES (Internet Protocol Enabled Services). The following documentation is required for this service type:

Proof of service and customers, this includes:

- Proof of interconnection agreements (or evidence of an interconnection order pursuant to an approved tariff)
- Proof of contractual agreements with end-user customers
- Regulatory administration approval, if applicable

More information and instructions for applying for an OCN can be found directly on NECA's website: <https://www.neca.org/business-solutions/company-codes>

Step 4: Applying as an Authorized Service Provider with the STI-PA

| Estimated time to complete: 2-3 weeks |

Once you have registered with the FCC, obtained your 499-Filer ID, and acquired your OCN, you will finally, be ready to submit your Authorized Service Provider application to the STI-PA.

There is a great deal of documentation available on iconectiv's website that is worth reviewing: <https://authenticate.iconectiv.com/documents-authenticate>

You can also begin the registration process with iconectiv, on their website: <https://authenticate.iconectiv.com/service-provider-authenticate>

Step 5: Deploy Vermouth for call metadata signing and verification

| Estimated time to complete: 1 week or less |

After your application has been approved by the STI-PA, you can finally begin with your implementation. We have created a set of tools that will make it easy for you to get up and running with a reliable, scalable, and low-maintenance STIR/SHAKEN solution.

To get started visit our website: <https://martinisecurity.com/vermouth>.

This provides a turn-key solution for call meta-data signing, verification, and certificate management. In our experience customers who have completed the above steps are able to get up and running in a matter of hours.

You will need to implement the STIR/SHAKEN attestation methods into your switch. Before introducing STIR/SHAKEN into a production environment on your voice network, you will likely want to reach out to your underlying carrier to ensure that there are no additional requirements or actions that will need to be taken to avoid potential service-affecting issues.

Step 6: Completing the Final Steps

| Estimated time to complete: 1-2 weeks |

Once you are deployed you need to notify the STI-PA that you have completed a series of tests. Vermouth includes a command-line option that will output a CSV that demonstrates you have completed these steps. See the Vermouth README for more information.

Once you have completed the technical requirements and are providing attestation for all outbound calls on your network, you will be able to update your Robocall Mitigation Database filing to confirm your voice network's Complete Implementation of STIR/SHAKEN. **Congratulations!**