

SHAKEN STIRRED

**Technology, Policy and Enforcement Come Together
To Put Trust Back Into the Telephone Network**

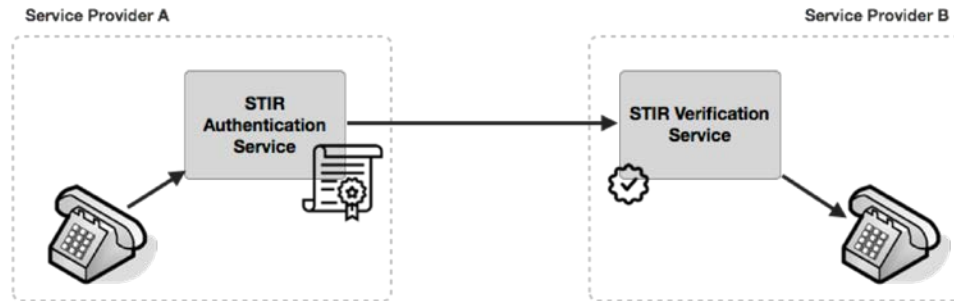
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SHAKEN/STIR Goals

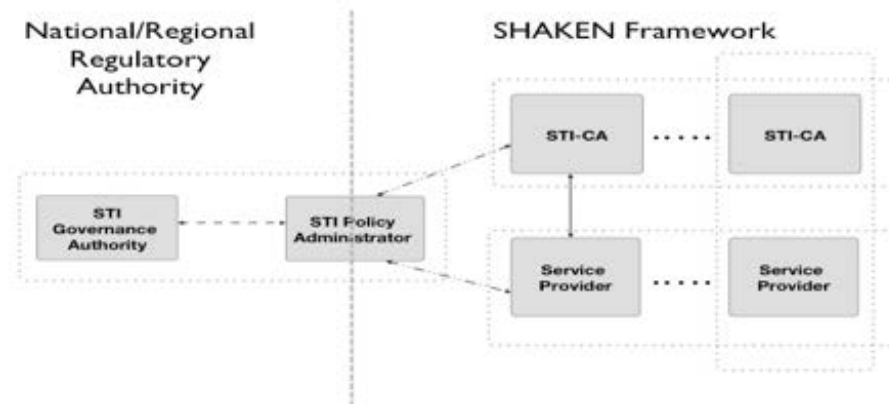
- **Address the security of the use of the telephone number for those who are legitimately associated with it**
- **Provide a technical framework that supports policy and enforcement goals**
- **Policy:** Rules for determining those who have authorization for credentials and have responsibility for the proper direct use of a telephone number or for the use of a phone number by their customer as set out by the SHAKEN/STIR framework and consequences of not following the framework
- **Enforcement:** The incorporation of identifiers to identify the source and origination of the call via direct traceback mechanisms to identify parties that are either not properly following the guidelines of the SHAKEN/STIR framework or using the telephone network for illegitimate purposes.

SHAKEN/STIR Overview

- STIR: Set of core of cryptographic tools for verification of calling identity (telephone number)



- SHAKEN: The Governance, Policy Enforcement, Traceback and PKI Trust Anchor Framework



What is and is not part of SHAKEN/STIR

- SHAKEN/STIR **is** about the trust and verification of the telephone number identity and the ability to quickly trace back to the originator of the call
- SHAKEN/STIR **can not** help to determine the illegitimate vs. legitimate intent or content of the call
- However, SHAKEN/STIR trusted identity in conjunction with the use of spam and call analytics tools can be a robust solution

Progress for SHAKEN/STIR

- **Accomplishments to date for 2019**
 - From baseline specifications complete to implementation in 1 to 2 years
 - Governance and Policy Administration in place
 - Call Verification and Signaling interoperating and in production wireless and wireline networks today
- **Pending**
 - Implement indirect telephone number ownership/Enterprise use-cases (e.g. delegation)
 - Incentivize IP-to-IP interconnection for end-to-end SHAKEN/STIR verification
 - Industry alignment on a end-device display framework for Verified Identity and Spam Identification and subsequent consumer education campaign
 - Continue to define specifications and adapt to changes by bad actors