

A cityscape background with a teal-to-yellow gradient. Overlaid on the image are several white, glowing arcs representing network connections, with small blue and white circular nodes at their endpoints.

SHAKEN 101

FCC Robocalling Summit

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ATIS

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Advancing ICT Industry Transformation

What is STIR/SHAKEN (and what it is NOT)

“The premise of STIR/SHAKEN is that telephone calls and the telephone numbers associated with the calls, when they are originated in a service provider network can be authoritatively and cryptographically signed by the authorized service provider, so that as the telephone call is received by the terminating service provider, the information can be verified and trusted.” (2016 Robocall Strike Force Report)

Translation: Digital signatures will be used to validate Caller ID and provide proof of where a call originated.

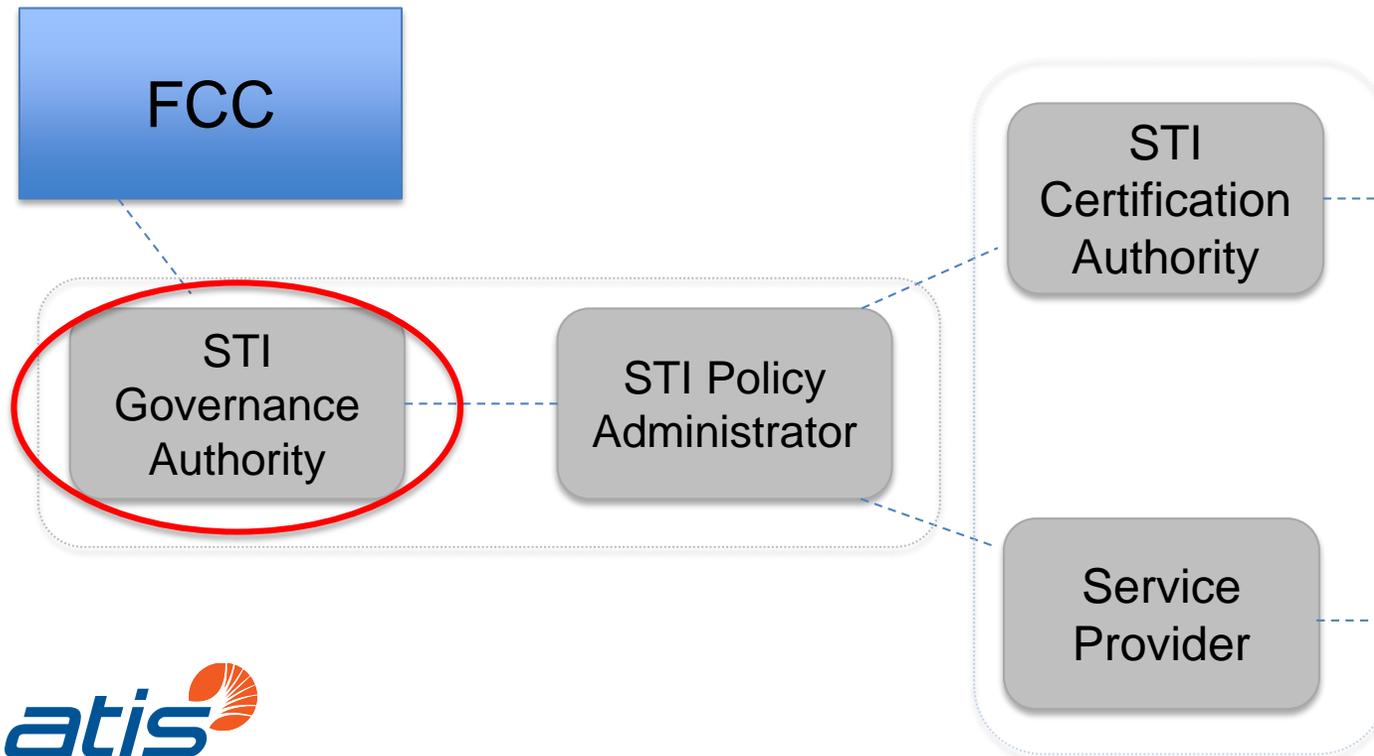
It is...

- A critical step taken by industry to make it easier for implementing SPs to determine when a telephone number has been illegally spoofed
- A set of standards that define how service providers share information about the origin of a call
- A solution that works for end-to-end IP calls

It is not...

- A silver bullet that will stop all illegal and unwanted robocalling

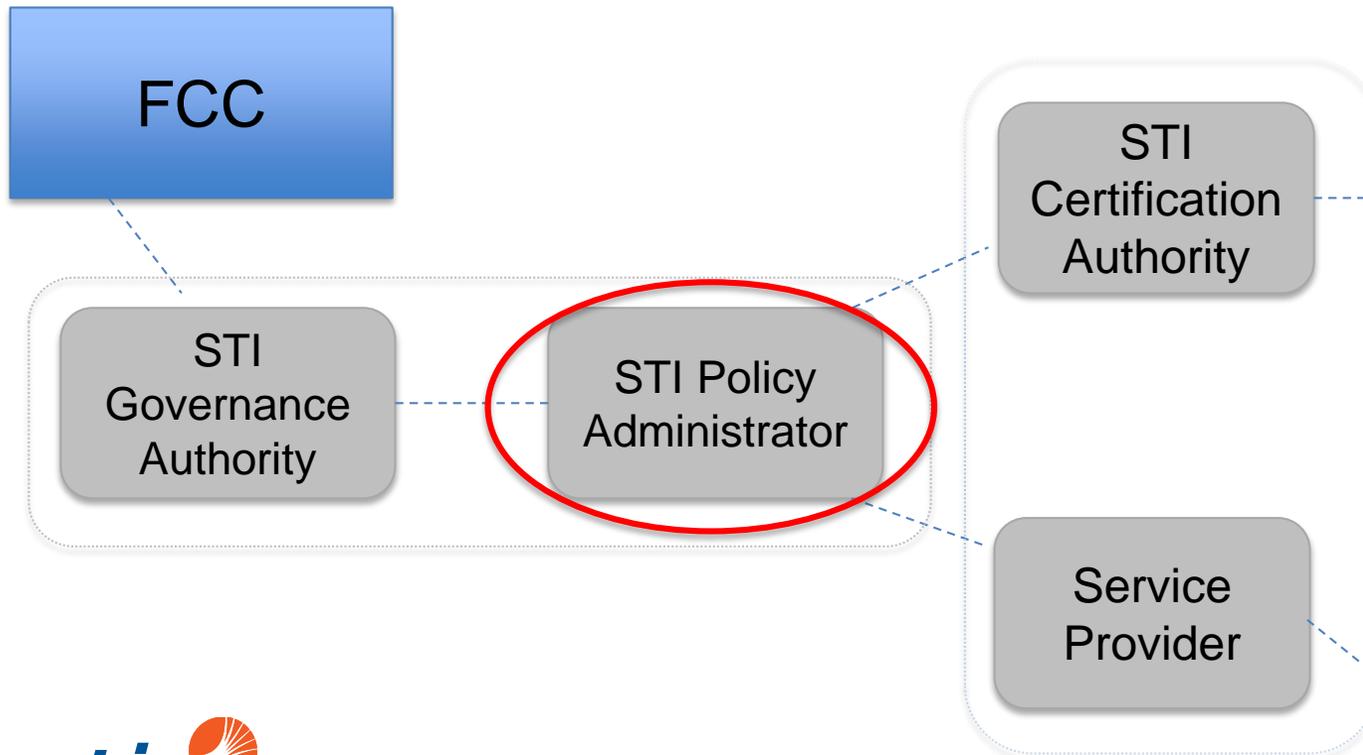
SHAKEN Governance Model



STI Governance Authority (STI-GA)

- Defines the rules governing STI Certificates
- Selects the STI Policy Administrator (STI-PA)
- Works with STI-PA to implement and manage STI ecosystem

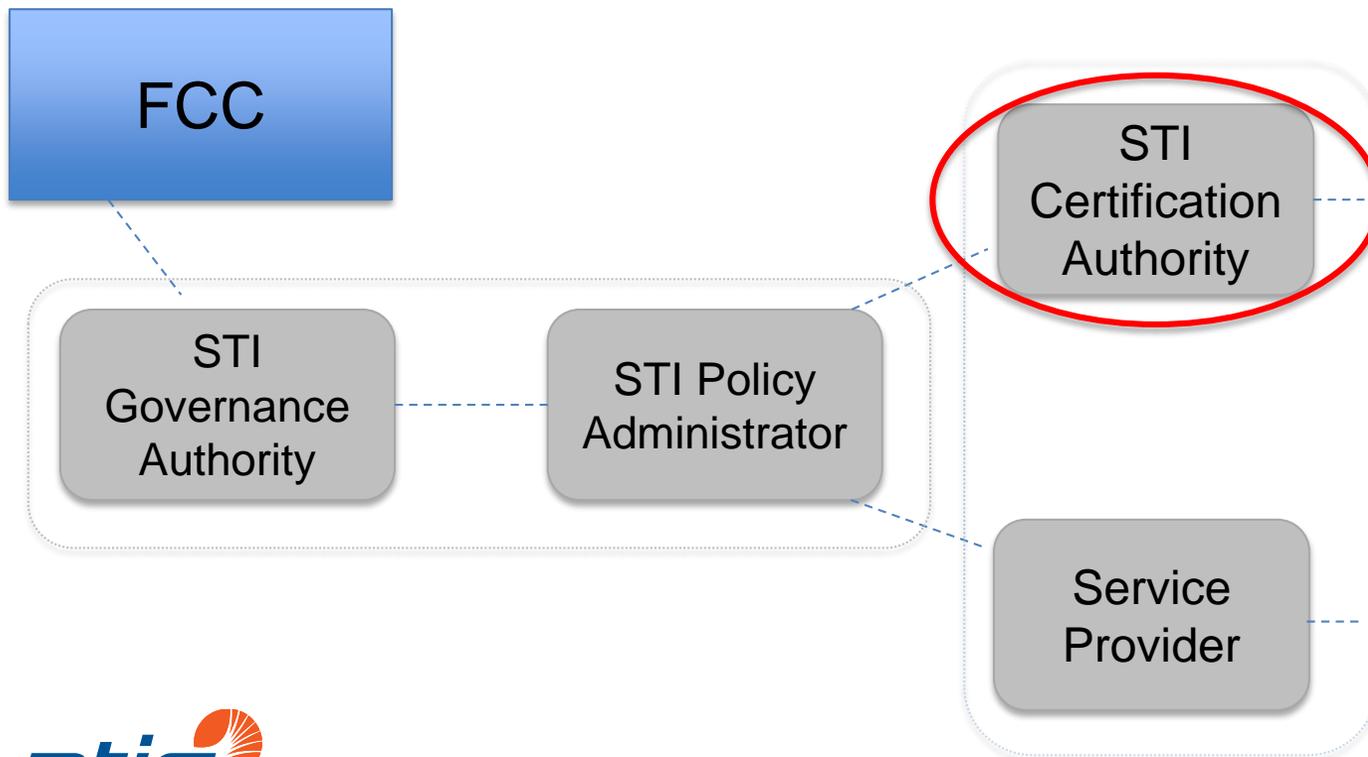
SHAKEN Governance Model



STI Policy Administrator (STI-PA)

- Applies the rules set by the STI-GA
- Vets and approves STI-CAs
- Validates that service providers are authorized to obtain STI Certificates
- Issues “Service Provider Code” (SPC) tokens
- Maintains secure list of all authorized STI-CAs & Certificate Revocation List (CRL)

SHAKEN Governance Model



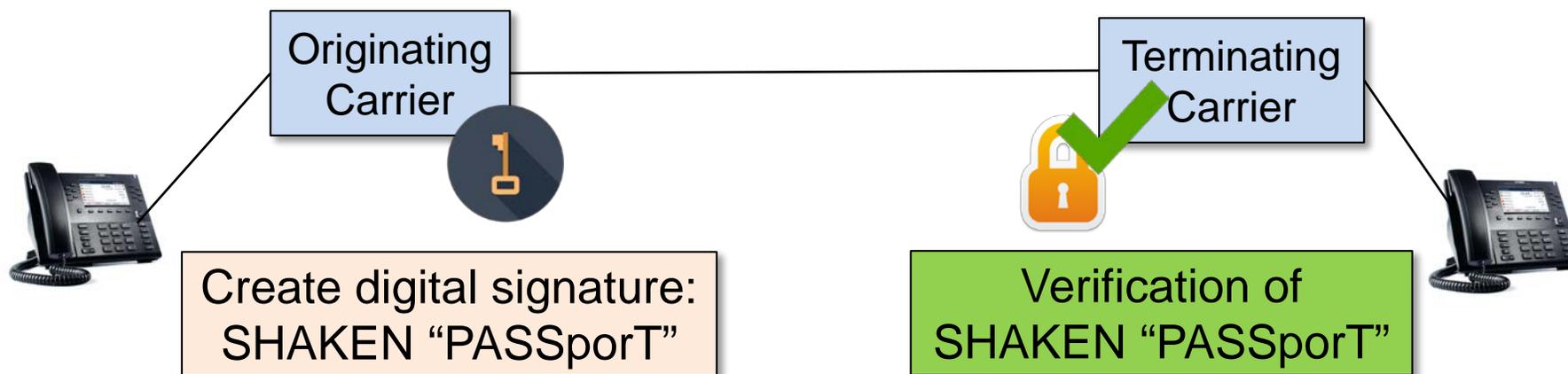
STI Certification Authorities (STI-CA)

- Multiple STI-CAs vetted and approved by STI-PA.
- STI-CA issues STI Certificates to service providers.

How it Works

The essence of SHAKEN is:

- Originating service provider creates digital signature based on what it knows about the call origination:
 - The customer and their right to use the number, or
 - The customer (but not the number), or
 - The point it enters their network
- Assign “origid” to uniquely identify the call origination



Countdown to Launch

- Commitment: Implementation by end of 2019 with the target of December 11, 2019
- Definition of Implementation
 - STI-PA and STI-CAs are operational
 - SPs can be approved to participate in ecosystem by STI-PA and can obtain STI certificates from an STI-CA
 - SPs can use STI-Certificates to authenticate Caller ID
 - Next Steps:
 - STI-PA Contract Execution
 - Finalizing the Funding Mechanism
 - Certificate Policy Development
 - CA Recruitment and Vetting
 - STI-PA System Build
 - SP Acceptance Testing
 - STI-GA System Acceptance