STIR/SHAKEN Webinar Series
Implementing SHAKEN: Working with a Certificate Authority

Moderator: Brent Struthers – STI-GA Director, ATIS

Panelists:

Erik Schetina– STI-PA Director of Customer Service, iconectiv

Dr. Peter Brown – Product Manager, Metaswitch

Alec Fenichel – Senior Software Architect, TransNexus

Ken Politz – Principal Product Specialist, Neustar, Inc.

Douglas Ranalli – Founder, NetNumber, Inc.

Travis Rothell – Director of Systems Engineering, Sansay

January 21, 2021

The CA and its Role

The Role of a Certification Authority

- Certification Authority
  - An entity that issues digital certificates (especially X.509 certificates) and vouches for the binding between the data items in a certificate. (ATIS 1000080)
  - The Certification Authority takes care of the entire life cycle of a digital certificate. It is in charge of:
    - Certificate Issuance
    - Certificate Renewal
      - Due to upcoming expiration of certificate
    - Re-keying a certificate
      - Due to private key compromise or expiration
    - Revoking a certificate:
      - Key compromise   - CA Compromise   - Affiliation change - Certificate hold
      - Cessation of operation   - Privilege withdrawn   - Certificate superseded

CAs in the STIR/SHAKEN Framework
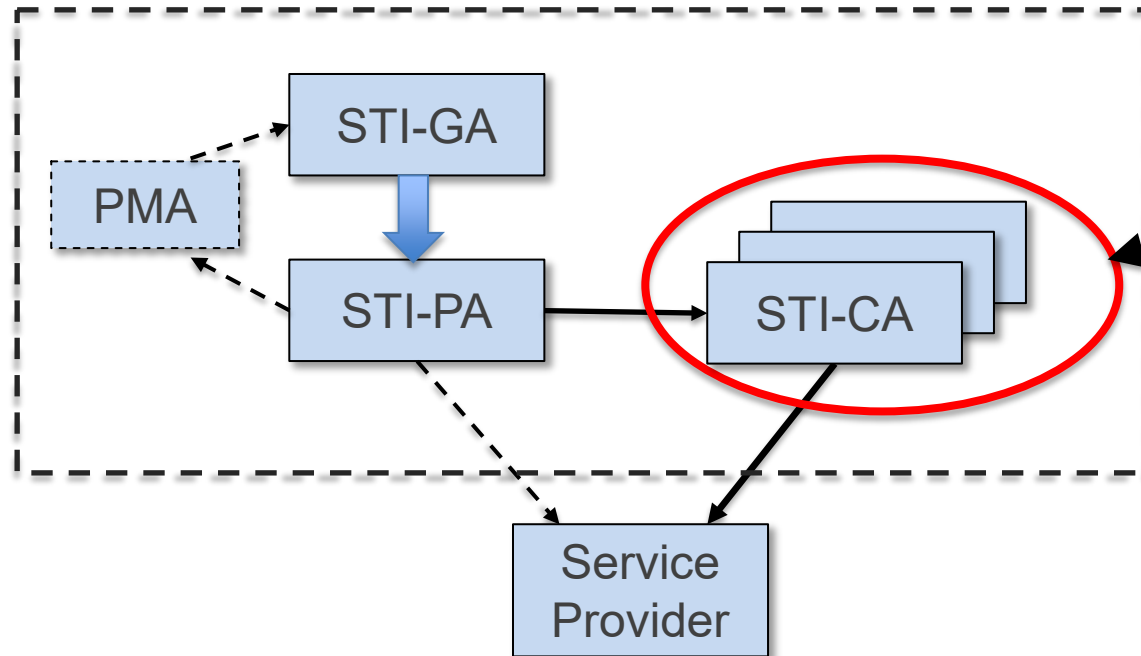
The STI-CAs provide the service of issuing valid STI certificates to the SPs authorized by the STI-PA in accordance with policy set by the STI-GA.

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The Role of the STI-CA

- STI-Certification Authority
  - The STI-CA serves as the Root CA for the STI certificates used to digitally sign and verify telephone calls.
- An STI-CA is specific to the STIR/SHAKEN Framework
  - Abides by STI-GA Board approved Certificate Policy (CP)
    - CA practices and policies that must be followed in order to be approved to serve as a trusted STI-CA in the SHAKEN ecosystem.
    - The CP is an evolving document (current version 1.1)
  - Operates under a Certification Practice Statement (CPS) that is based on the CP and approved by the Policy Management Authority (PMA)
  - Competitive space
    - Multiple STI-CAs
    - Cost determined by commercial arrangements

Cause for Revocation

- The STI-GA managed revocation process takes effect only in the cases noted below:
  - The SP failed to adhere to one or more of the policy and/or technical requirements:
    - SPC token Access Policy
    - Funding requirements
    - SHAKEN specifications
  - When directed by a court, the FCC, or another body with relevant legal authority due to a violation of Federal law related to caller ID authentication.

The STI-CA Approval Process

Registering with the STI-PA

https://authenticate.iconectiv.com/certification-authority-authenticate

Policy Management Authority

- A group of stakeholders responsible for ensuring that the established policies are adhered to

- PMA Director, Erik Schetina, iconectiv
  - PMA Members
    - AT&T
    - Comcast
    - Microsoft
    - T-Mobile
    - Verizon
  - Reviews and approves the CPS' submitted by prospective STI-CAs
  - STI-GA Board will not consider STI-CA approval until PMA determines the CPS is compliant

The STI-CAs

Approved STI-CAs

- The following CAs have been approved by the STI-GA Board to serve SPs within the STIR/SHAKEN ecosystem:
    - Metaswitch
    - NetNumber, Inc.
    - Neustar, Inc.
    - PeeringHub
    - Sansay
    - TransNexus
- The official listing along with contact information can be found on the STI-PA website: https://authenticate.iconectiv.com/approved-certification-authorities

STI-CA Q & A

Q & A Session with:

Dr. Peter Brown
Product Manager
MetaSwitch

Travis Rothell
Director, Systems Engineering
Sansay

Douglas Ranalli
Founder
NetNumber, Inc.

Ken Politz
Principal Product Specialist
Neustar, Inc.

Alec Fenichel
Senior Software Architect
TransNexus

Questions?

Implementing SHAKEN: I'm ready to sign calls. Now what?

When: February 25, 2021, 2:00 p.m. ET.

Registration Link: https://www.atis.org/webinars/stir-shaken-webinar-series/

Thank you for attending the
STIR/SHAKEN Webinar Series
Implementing SHAKEN: Working with a Certificate Authority

All registered attendees will receive a follow up email containing links to a recording and the slides from this presentation.

For information on the STIR/SHAKEN webinar series, visit
www.atis.org