Overview/Refresher

STIR WG / IETF 95 Buenos Aires, Apr 2016 Sean

First principles (yet again)

Separating the work into two buckets:

1. Signaling

What fields are signed, signer/verifier behavior, canonicalization.

2. Credentials

How signers enroll, how verifiers acquire credentials, how to determine a credential's authority for identity.

Where to look

Separating the work into two buckets:

1. Signaling

draft-ietf-stir-rfc4474bis: SIP headers, parameters, canonicalization, etc.

draft-ietf-stir-passport: a JSON object comprising values copied from certain header field values in the SIP request.

2. Credentials

draft-ietf-stir-certificates: key management

How's it work?

Alice:

- Generates and INVITE request where the FROM header field includes her identity (address-ofrecord)
- Sends an INVITE over TLS to an authentication service proxy for recipients domain.

Authentication Service:

- Authenticates Alice and validates that she is authorized to assert the identity that she populated in the From header field.
- Constructs a JSON PASSporT object that mirrors particular SIP headers and fields, hashes it, signs it, and sticks it in SIP identity header.

Proxy:

• Includes pointer to certificate.

Bob's Domain:

Verifies the signature provided in the Identity header.

Bob's UA:

• Can also perform validation.