

draft-peterson-stir-rfc4196-update-04
Connected Identity

STIR WG IETF **111** Virtual
July 2021

Revisiting RFC4916

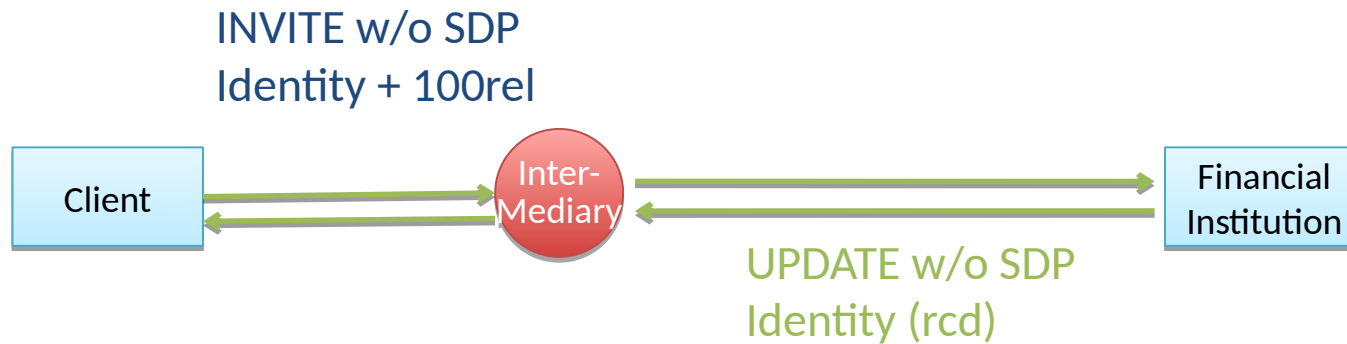
- The “connected identity” draft, update to RFC4916
 - How to make Identity work in the backwards direction, since it can’t work for responses
 - Covers mid-dialog and dialog-terminating requests
 - Classic use case is UPDATE in the backwards direction before 200 OK: telling you who you actually reached
- Leveraging STIR to close security vulnerabilities
 - Route hijacking
 - I tried to call my bank, by an attacker somehow interposed
 - “Short stopping” and similar attacks
 - Intermediary networks forging BYE in one direction while the call proceeds in another
 - sipbrandy (RFC8862) needs it
- This does take STIR past the threat model of RFC7375

What's new in this version

- Mostly cleanup
- Did flesh out a bit more on pre-call connected identity
 - Basic idea: before you click “call”, learn who will be reached
 - Useful for some fraud cases, especially with RCD
 - Focusing on medialess dialogs
 - Basically, sending an INVITE with no SDP and an Identity header, with 100rel in Require, is a request for pre-call connected identity
 - Caller can then do offer/answer if the callee is legit
 - Obviously, this would require significant implementation support, not a small lift
 - Might be worth it for some classes of businesses and institutions

Pre-Call Connected Identity

Will my call reach the bank?



Oh, it will, so UPDATE to voice call

Conferencing

- Notes conferencing is something to think on
 - What do we think the expected connected identity behavior is for a conference?
 - What happens when conference participants change?
- Easy-road proposal
 - Declare centralized conferencing basically out of scope
 - Ways you learn about participants are secured separately, effectively only requires Identity to reach the conference bridge
 - Only if you get dialed in by the bridge (3PCC style) is connected identity relevant
 - Claim we get decentralized for free
 - Each participant does connected identity with each other participant

Still to do

- Revised examples
- Any actual normative revisions to RFC4916
 - Elimination of the Identity-Info header, etc.
- Flesh out more a pre-call connected identity approach

Next Steps

- Still plenty to do here
 - But we think we need this, for a variety of use cases
- Adoption, pending recharter?

New STIR Charter Text

The group will also consider extensions that leverage STIR to solve related identity problems around telephone calls and other telephone-number based communication, including call diversion and forwarding, rich identity presentation for delivery to a called party, messaging that uses telephone numbers, connected identity (mechanisms that identify the called party reached to the calling party), and similar use cases related to fraud and security.