An old draft returns

• 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 (in C238) needs it (if anyone will use sipbrandy)

• This would take STIR past the threat model of RFC7375
STIR Backwards

Did I actually reach the bank?
How useful is it?

• What will we use backwards Identity for?
  – Authorization decisions about sending/receiving media
  – An approach: treat it like negotiating SRTP, in how failure is handled

• What kind of user experience can we offer?
  – Right now when you place a call you don’t always look at a display during alerting
    • Unlike the Caller ID case where users look at a display to decide how to answer
  – We won’t dictate a user experience, but we’ll at least provide cues it could follow

• Can we do this before a call even starts?
  – Easy to imagine discovering keys, determining what security services are available offline before a call is placed
    • Especially for destinations in an address book
    • Could help to know when you need to fail the call
How much of an update?

• Generally, RFC4916 guidance is still relevant
  – Lots of text about Identity-Info no longer applies
  – Back in 2016, Adam identified one more piece of normative behavior we should fix in 4916
    • Relates to the re-sending mechanism we hacked into RFC8224 for compact form failures

• Big idea is the same
  – e.g., use an UPDATE request in the backwards direction while the dialog is being formed
    • Sign it with RFC8224, let the PASSporT reflect the connected identity in the “orig”
Next Steps

• Been a while... an idea whose time has come?
  – If so, we’ll do some more work

• Adoption?