

IETF 71 SIP WG meeting

SIP Identity issues

John Elwell, Jonathan Rosenberg et alia

Summary of contributions

- Phone number issues:
 - draft-elwell-sip-e164-problem-statement-00
 - draft-schwartz-sip-e164-ownership-01
 - draft-rosenberg-sip-rfcc4474-concerns-00
 - draft-wing-sip-e164-rrc-01
 - draft-darilion-spe16-enum-00
- SBC issues
 - draft-wing-sip-identity-media-02
 - draft-fischer-sip-e2e-sec-media-00

Summary of contributions (cont.)

- Baiting attack
 - draft-kaplan-sip-baiting-attack-02
 - not an issue when dtls-srtp is used
 - not a problem introduced by RFC 4474 – can be done anyway
 - not considered further today

Phone Identity Problem Cases

- The Identity service cannot verify the correctness of the phone number. e.g., it came from the PSTN.
- The Identity service can verify the correctness of the phone number, but there's no way for a relying party to know that the Identity service is authoritative for that number
- The Identity service can actually verify the correctness of the phone number and the relying party can verify that the Identity service is authoritative for that number. e.g., by configuration.

Strawman Identity Solution

- If a user is identified by a phone number, its domain can sign with an RFC 4474 signature if it believes that calls to that number will reach the user
- There is value in the RFC 4474 signature even for phone numbers – it allows the verifier to:
 - Render the domain to the user, possibly as a company name – separate from the number
 - Check whitelists/blacklists for trustworthiness of domain
- Nothing in the RFC 4474 signature allows verifier to know that the domain “owns” the number
- Nothing in the RFC 4474 signature says this is the true origin (could be an intermediate service provider)

Strawman Identity Solution

- Calls from a PSTN gateway include P-A-ID
 - No way for the SIP provider to verify the caller ID
 - Could put gateway@domain in From and sign with RFC 4474
- Users with both a user@domain and phone number
 - user@domain in From field
 - Domain includes RFC 4474 signature
 - Domain adds P-A-ID containing number
- DTLS-SRTP clarifies quality of integrity protection in cases of phone numbers and improves existing solutions

Questions for SIP WG

- Is the straw man proposal for phone numbers the right way to go?
- Should we consider an informational or BCP document that discusses what can be inferred from received identity information?
- Are there any useful steps for dealing with SDP modification by SBCs?
- Is there an impact on the draft-ietf-sip-dtls-framework that we need to deal with in that document?