SDP-DTLS

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PROBLEM

- DTLS setup rules are replicated across multiple drafts – need a single place to define them
    - If you have bundle you need a single rule for all transports in the bundle
    - New drafts need to copy DTLS procedures or reference DTLS-SRTP
- Existing drafts are inconsistent or ambiguous when DTLS is re-established
    - DTLS does not support unsolicited association setup -- If parties make different assumptions about starting DTLS association, communications will fail
- Existing drafts do not prevent multiple DTLS association over the same transport
    - DTLS does not support association multiplexing
- NOTE: The procedures (whether in a separate draft or not) have been requested as part of the SCTP-SDP review

SOLUTION

draft-holmberg-mmusic-sdp-dtls
https://github.com/cdh4u/draft-sdp-dtls

- PURPOSE & SCOPE
  - Generic base document for all DTLS usages
    - SRTP-DTLS
    - SCTP-DTLS
    - …
  - Define when offer/answer transaction triggers new DTLS association
    - With ICE considerations

New DTLS association RFC 5763

- **DTLS roles (client/server) change;**
  - SDP setup attribute
- **Fingerprint changes;**
  - SDP fingerprint attribute
- **The local transport parameters**
  - **No ICE: (IP address and/or port) of at least one endpoint change;**
  - **ICE: ufrag value changes (currently not explicitly spelled out)**
    - All ICE candidates associated with a given component use the same DTLS association

SDP Connection attribute

- There are cases where a transport change occurs, but where one does not want to re-establish the DTLS association
  - IP address lease expiration
  - Network switch
  - ICE restart
  - …
- 'connection:existing'
  - indicate that DTLS association is *not* to be re-established
- 'connection:new'
  - indicate that DTLS association is to be re-established

OPEN ISSUES

- There are a number of technical issues with the suggested solution
  - See mail archive
  - See github: https://github.com/cdh4u/draft-sdp-dtls
- Purpose of this presentation is not to discuss those here and now

SUGGESTION

- CREATE A MILESTONE

- ADOPT THE DRAFT

THE END

THANK YOU FOR LISTENING!