Transporting the SDP attribute 'dtls-id' in TLS and DTLS

draft-jones-perc-dtls-id-00

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Issue Considered

• The tunnel draft introduced a “conf_id” to address the “conference identification” issue raised previously
• It’s clunky
• It’s another conference ID
• No clarity on:
  • Which direction it is sent (MD → KD or KD → MD)
  • How it is associated with an incoming call
Proposal

• Given the “dtls-id”, which is unique per DTLS association, can be advertised in SDP and associated call control signaling [draft-ietf-mmusic-dtls-sdp], put that into the DTLS ClientOffer message as a DTLS extension

• It doesn’t need to be encrypted
  • Media Distributor could utilize this information if desired

• Get rid of the conf_id field in the DTLS tunnel draft

• We assume the Key Distributor somehow learns about Alice’s certificate fingerprints and associated dtls-id value
  • Knowledge of certificate fingerprints is an existing assumption
The ‘dtls-id’ Extension

• Defined as:

```c
struct {
    opaque dtls_id<20..255>;
} SdpDtlsIdData;
```

Note: [draft-thomson-avtcore-sdp-uks-01], which was also produced for this meeting, defines the same extension, though allowing a length of 1..255.

Note: We do not propose defining this extension within the tunnel draft. We can reference draft-thomson-avtcore-sdp-uks now that it exists.
Expected Result using dtls-id

- Alice initiates two calls in parallel to join two separate conferences
- The certificate fingerprints and “dtls-id” attribute are delivered to the Key Distributor and associated with Alice
- When a DTLS association is established, the Key Distributor checks to ensure the dtls-id and certificate fingerprint are expected values and uses the dtls-id value to ensure the correct conference key is provided
Next Steps

• Move the procedural text into the Tunnel draft or framework
• Refer to draft-thomson-avtcore-sdp-uids from the tunnel draft