Stream Control Transmission Protocol (SCTP) Based Media Transport in the SDP

(draft-loreto-mmusic-sctp-sdp-03)

Gonzalo Camarillo Salvatore Loreto

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Overview

The draft defines two new protocol identifiers:

- 'SCTP', to describe SCTP-based [RFC4960] media streams transport in SDP
- 'SCTP/ TLS', to establish secure SCTP-based media streams over Transport Layer Security (TLS) in SDP.

Additionally, it specifies the use of the 'setup' and 'connection' SDP attributes to establish SCTP associations.

Issue #1: DTLS

The current version of the draft defines the protocol identifier for SCTP over TLS: 'SCTP/TLS'.

However since

- no one has implemented SCTP over TLS yet
- and it does not support PR-SCTP,

the idea is to remove from the draft 'SCTP/TLS'

and instead define '<u>DTLS/SCTP</u>' as described in I-D.ietf-tsvwg-dtls-for-sctp

Multihoming (1/2)

- An SCTP endpoint, unlike a TCP endpoint, can be multihomed: it has more than one IP address.
- A multihomed SCTP endpoint informs a remote SCTP endpoint about all its IP addresses using the address parameters of the INIT or the INIT-ACK chunk
- once the address provided in the 'c' line has been used to establish the SCTP association address management is performed using SCTP.

Two SCTP endpoints can use addresses that were not listed in the 'c' line, but that were negotiated using SCTP mechanisms.

Multihoming (2/2)

Open Issue: intermediaries such as SBCs will not be aware of some of the IP addresses used for media because they will not appear in the SDP.

We can RECOMMEND that SCTP endpoints use a main address all the time (e.g., not to retransmit to a backup address) and that they send a re-INVITE every time they change that address.

Alternatively (or additionally), we could add SDP attributes with all the IP addresses that can be used by the association.

Questions?