RTCP XR Blocks for Synchronization Delay and Offset Metrics Reporting

draft-ietf-xrblock-rtcp-xr-synchronization-01

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Updates Since Last Version

- Clarified definition of synchronization offset
  - The relative time difference of two media streams that need to be synchronized.
- Explain how to use in-band mapping of RTP and NTP-format timestamps to calculate initial synchronization delay
  - The average time taken to receive the first RTP header extension containing in-band mapping of RTP and NTP-format timestamps.
- Improved SDP section
  - Added a subsection to include the extended syntax.
  - Added a subsection to clarify SDP Offer/Answer usage
- Updated references
  - Adding one reference, TR-126, to normative references
  - Updating some references to the latest version.

Issue# Reference Stream Chosen

- In RTP flow synchronization offset metrics block, how to choose the reference stream hasn't been addressed in previous version of the draft.

- We propose to let the implementation choose which stream as the reference stream :

    - To support this, the SSRC of the reference stream field has been added to the report block in current draft.

Issue# Signed vs. Unsigned

- RTP flow synchronization offset metrics block Lacks indications to tell whether the reporting stream lags behind or heads before the reference stream
  - synchronization offset value is a 64-bit **unsigned** fixed-point number.
- Proposal: Sign flag bit (in current version of the draft):
  - splitting one bit from "Reserved" field of Block header to do the indication.
- Proposal: Signed value (proposed by Colin):

- Using a signed 64-bit NTP timestamp format for synchronization offset .

- Suggest to adopt the "signed value" proposal.
  - Easier for implementations.

Issue# Beginning of Session

- The single RTP session is considered to be joined once any in-band signaling for NAT traversal has concluded and/or security keying has concluded, and the media path is open.

multimedia session The time when the first RTP session was joined as the beginning of the whole
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- The report interval may change as session size change and stabilization
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• We should get consensus in WG.

Next Step

- Address all the remaining issues we received.
- Comments?