ICE
draft-ietf-ice-rfc5245bis

IETF#95

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(2) AGENDA

- Keep-alives
- Connectivity check pacing
- Aggressive nomination
- Frozen candidates

- Next steps

(3) Keep-alives

- ISSUE:
  - RTP no-op and RTP comfort noise currently defined as a keep-alive mechanism when peer does not support ICE
  - RTP no-op will not progress in AVT
    - draft-ietf-avt-rtp-no-op

- SUGGESTION:
  - Remove reference to RTP no-op

- QUESTION:
  - Do we want to keep recommendation of using RTP comfort noise for keep-alives when peer does not support ICE?

(4) Connectivity check pacing

- ISSUE:
  - Current min Ta value causes bad performance
    - Check phase can take a long time
  - Too small value might cause bandwidth/NAT issues

- SUGGESTION:
  - Min Ta value: 5 ms
    - Smaller value does not provide any gain
  - Default Ta value: 50 ms
    - Currently used by many implementations
    - Specific value might be negotiated, if supported by signaling protocol
  - No distinction between RTP and non-RTP

- NOTE:
  - If we get measurement results before WGLC, we can revisit the decision
  - If we get measurement results after publication, we can always update the RFC

(5) Aggressive nomination (1/2)

- ISSUE:
  - Redundant
    - Spec already allows you to send media before nomination is done
  - You don't know when nomination is done
  - Previous agreement to remove aggressive nomination
  - Question is HOW to deprecate it, in order to backward compatible

(6) Aggressive nomination (2/2)

- SUGGESTION:
  - Alternative 1: receive-do-not-send
    - Controlling endpoint: MUST only nominate one candidate pair
    - Controlled endpoint: If remote peer uses aggressive nomination, endpoint selects the highest-priority nominated candidate pair
      - Endpoint must still be able to receive aggressive nomination
  - Alternative 2: ice-option
    - Controlling endpoint: MUST only nominate one candidate pair
    - Both endpoint include 'ice-option=disable-aggressive'
      - Endpoints supporting the ice-option will not use aggressive nomination
      - Endpoints not supporting the ice-option will not use aggressive nomination
        - » Because of ICE rules when receiving non-supported ice-option

- NOTE
  - Both alternatives still allows sending media before nomination
- QUESTION
  - Do we need to address endpoints that are not able to receive media before nomination?

(7) Frozen candidates

- ISSUE:
  - Does not seem to be implemented by everyone
    - Low number of streams
    - Usage of RTP/RTCP mux, BUNDLE,…
  - Issues with trickle
- SUGGESTION:
  - Alternative 1: Do not standardize usage of freezing
    - Endpoints can still do it as an implementation specific optimization
    - No need to standardize how trickle deals with freezing
    - **QUESTION**: Interoperability between endpoints that freeze and endpoints that don't?
  - Alternative 2: Deal with trickle issue in draft-trickle
    - No impact on 5245bis
    - **QUESTION**: Can we solve trickle issues without touching 5245bis?

(8) NEXT STEPS

- Submit new version of draft-5245bis
- WGLC?

THE END