RTCP Extension for Third-party Loss Report
draft-ietf-avtcore-feedback-suppression-rtp-08

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Overview

• Objective and solution
  – Deal with feedback implosion when feedback forwarding to avoid duplicate report does not work.
  – Draft defines the third party loss report using RTP/AVPF feedback format
  – Draft discuss use of new message in various cases.

• Change history
  – 05 version aiming at WGLC discussed in Quebec meeting
  – 06~07 version receives comments on the list from Magnus, Colin, Tom and Roni.
  – 08 version contains update reflecting that discussion
Changes since 05 versions

• Revising the SSM use case section to focus on the use of TPLR.
• Update and reorganize references
• Remove Seq Nr field in figure 2 for payload specific feedback
• Editorial changes to the Introduction, Protocol Overview, SDP Signaling, Message Format, Use cases, Security Consideration and IANA sections.
• Restructuring the protocol overview section to clarify the round trip time calculation and receiver behavior to the additional TPLR.
Issue – Second Loss issue

• When a receiver gets a TPLR message, expecting a retransmission packet which get lost on the leg from DS / Media source to the receiver.
  – Is it still relevant to ask for retransmission? (see RFC 4585 3..7.1)
  – If yes which RTT should be used for timeout (TO) until the retransmission reaches the receiver?
• Use RTT between original media source and receiver is not accurate
  – Only valid when sender of TPLR is very close to the media source.
• The actual time can be based on
  – The time for the retransmission packet from the media source to the receiver based on Receiver Reference Time XR Block and DLRR XR Block.
  – The time for the NACK from the sender of TPLR to reach the media source.
  – It can be estimated using the RTT between the sender of TPLR and receiver and the RTT between the media source and receiver.
Time based solution

- Current solution based on RTT between original media source and the sender of TPLR
  - calculate the RTT1 based on Receiver Reference Time XR Block by using the measurement method defined in the figure 2 of RFC3550
  - obtain RTT2 from round trip sub report in RSI packet
  - set timer based on (RTT1-RTT2)=RTT3.
- Another option
  - Define new report block similar to the round trip sub report block specified RFC 5760
  - Use this new report block to carry RRT3 directly.
Next Step

• Can we just not set timeout when the retransmitted packet for the second loss doesn’t help?
  – Deal with TPLR in the same way as NACK
• WGLC?