RTCP Report Extension for Feedback Suppression

draft-ietf-avtcore-feedback-suppression-rtp-00

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Outline

• Introduction
• Issues
• Moving Forwarding
Introduction

• Specify a general mechanism to mitigate transient overload if some event causes a large number of receivers to send feedback at once

• Solution
  – Define RTCP extensions for third party loss report.
  – Comply with RFC4585 FB suppression rule.
  – Avoid impact on the repair of lost packet.

• Works for all RTP topologies
  – SSM use case
  – RAMS use case
  – Transport Translator use case
  – MCU use case
Issue – FEC Stream handling

• Draft does not take FEC stream handling into account.
• Ali raised that Retransmission is not only way for packet loss repair?
• Roni pointed out a early warning from Distribution source is useful for receiver to use FEC instead of waiting.
• Our proposals are:
  – Allow both retransmission and FEC as loss-repair method for use to recover the missing packets
  – Leave the behavior of the DS in the upstream direction and open to the implementation.
Issue – report merging

• What distribution source take action to two reports from upstream? Take union of two third party loss reports or take intersection of two third party loss reports

• Our proposals are:
  – In order not to change performance, each intermediary send its own report to receivers.
  – the downstream distribution sources forward Third Party Loss Report containing different event received from upstream
  – the downstream distribution sources suppress its own Third Party Loss Report if containing the same event
  – The downstream distribution source MAY choose to merge the report from upstream with its own report containing different event. But this is not recommended.
Issue – Use of RSI extension vs FB

• In the early version, we use RSI extension.
• Currently use Feedback packet type in this document
• Using Feedback packet type for suppression
  – Pro: Not limited to SSM, Applicable to many other RTP topologies.
    RFC4585 FB suppression rule apply, client behavior can be simplified according to RFC4585.
  – Con: ???
• Using RSI extension other than FB packet type
  – Pro: ???
  – Con: Only limited to SSM use case.
    RFC4585 FB suppression rule can not apply here
    Need to define client behavior
Moving Forward

• Expect to have a new version in April
• Any other issues?
• Encourage more review of draft and early feedback