

RTCP Report Extension for Feedback Suppression

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

Qin Wu
Frank Xia
Roni Even

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 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