RTCP feedback for Congestion Control

RMCAT design team

IETF96, Berlin

Presenter : Zaheduzzaman Sarker

Design Team Goal

"The RTP Media Congestion Avoidance Techniques (RMCAT) Working Group formed a design team to analyze feedback requirements from various congestion control algorithms and to design a generic feedback message to help ensure interoperability across those algorithms. The feedback message is designed for a sender-based congestion control, which means the receiver of the media will send necessary feedback to the sender of the media to perform the congestion control at the sender."

Required feedback information

- Packet level information block
  - **Packet Identifier** - RTP sequence number.
  - **Packet Arrival Time** - Arrival time stamp at the receiver of the media.
  - **Packet ECN marking** - If ECN [RFC3168] is used, it is necessary to report on the 2-bit ECN mark in received packets, indicating for each packet whether it is marked not-ECT, ECT(0), ECT(1), or ECN-CE.
  - The feedback messages can have one or more of the above information blocks.

- For RTCP based feedback message the packet information block will be grouped by Synchronization Source (SSRC) identifier.

- It needs a new signaling format for sender based congestion control.
  - As RTCP XR block when reported with RTCP SR/RR
  - As RTCP/AVPF feedback message when reported more frequently than regular RTCP report.

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Contribute

- The design team has documented the progress and findings in a draft
  - https://www.ietf.org/internet-drafts/draft-dt-rmcat-feedback-message-00.txt

- <u>The draft is also available in github</u>
  - https://github.com/zaheduzzaman/rmcat-feedback-message

- <u>Send comments in the rmcat mailing list</u>

- <u>Join the design team.</u>