RTCP XR Report Blocks for Real-time Video Quality Monitoring
draft-wu-avt-rtcp.xr-quality-monitoring-04

Qin Wu (sunseawq@huawei.com)
Glen Zorn (gwz@net-zen.net)
Roland Schott (Roland.Schott@telekom.de)
Status

• Presented in the IETF 78, Masstricht, lots of interests on this work

• Changes since -00
  – Get alignment with monitoring architecture draft
    • Split MPEG Transport Stream specific metric out of this draft
      – The new draft-huang-avt-rtcp-xr-decodability-00 is newly submitted to cover such MPEG Transport Stream specific metric
    • break mixed metrics into reusable small metrics
    • categorize all the metrics into transport layer metrics and application layer metrics.
    • Distinguish Initial synchronization delay from General Synchronization Offset
    • Move Layered Streams Statistics Metric Block to transport layer metric
Transport layer Metrics

- **RTP Flows Initial Synchronization Delay**
  - The synchronisation delay is firstly discussed in [I-D.ietf-avt-rapid-rtp-sync].
  - Two class of synchronization delay
    - Initial synchronization delay between RTP sessions of the same media stream
    - Initial synchronization delay between RTP session of the different media types
  - Applicable to layered and/or multi-description codecs [I-D.ietf-avt-rtp-svc].

- **RTP Flow General Synchronization Offset**
  - Relevant to synchronization delay discussed in [I-D.ietf-avt-rapid-rtp-sync].
  - Defined as the synchronization offset time of each RTP stream relative to the reference RTP stream with the same CNAME and General Synchronization Offset of zero

- **Layered Streams Statistics**
  - Applicable to layered and/or multi-description codecs [I-D.ietf-avt-rtp-svc].
  - Two kind of information is reported
    - Lost base layer packets, duplicated base layer packets
    - Lost Enhancement layer packets, duplicated enhancement layer packets
Application Layer Metrics

- **RTP Streams Statistics Summary**
  - Information to be reported
    - Lost key frame packets, duplicate key frame packets
    - The proportion of key frame impaired by packet loss and discard

- **Video Stream Loss and Discard Metrics**
  - Information to be reported
    - Lost rate, discard rate of key frame packets

- **Video Stream Burst**
  - Information to be reported
    - Burst severity of key frame packets
  - Use one way loss pattern sample algorithm defined in [RFC3357] to measure this information

- **Synthetical Multimedia Quality (Composite Metric)**
  - Parameters to be reported
    - MOS-AV
  - Use ITU specified methodologies to measure these parameters
    - [G.1082],[P.NAMS]
Issues and Next Step

– Shall we wait for monitoring architecture completion and then progress this work?
  • Is it possible to progress monitoring architecture work and this work in parallel?

– Request to accept draft as WG item