Consideration for Selecting RTCP XR Metrics for RTCWEB Statistics API

draft-huang-xrblock-rtcweb-rtcp-xr-metrics-02

Rachel Huang (rachel.huang@huawei.com)
Varun Singh (varun@comnet.tkk.fi)
Roni Even (roni.even@mail01.huawei.com)
Dan Romascanu (dromasca@avaya.com)
Updates Since Last Version

• Adjusting the organization of proposed metrics.
  - Relatively prevalent metrics are discussed first.
  - Duplicate packets count is not recommended in this document.
  - Post-repair packet count metric has been added.
  - Jitter metrics have been removed.

• Updating the references.

• Other editorial changes.
Overview

• Providing guidelines when selecting additional statistic RTCP XR metrics.
  - Mainly talking about what kinds of metrics should be used for RTCWEB.
  - draft-singh-xrbblock-webrtc-additional-stats-01 makes a recommendation for a minimum set of metrics from this draft to be currently registered in IANA.

• Motivation
  - WebRTC needs Statistics.
    ➢ draft-alvestrand-rtcweb-stats-registry registered basic statistic metrics from standard RTCP SR/RR.
  - Basic statistics from RTCP SR/RR may not be sufficient.

• Considerations when selecting metrics
  - Metrics only collected in the local endpoint.
  - Metrics could be queried by JS Apps at arbitrary intervals.

• 7 kinds of metrics are suggested.
Suggested Metrics

• Loss and discard packet count metrics
  - Lost packets count [RFC3550], discard packet count [RFC7002].

• discard octets metric
  - discarded octets [draft-ietf-xrblock-rtcp-xr-bytes-discarded-metric-00].

• retransmitted and post-repair packet count metrics
  - Retransmitted packets count, post-repair loss count [draft-huang-xrblock-post-repair-loss-00].

• frame impairment summary metrics.
  - Number of discarded frames, number of fully lost frames, number of partial lost frames [RFC7004].

• Burst/gap pattern metrics for loss and discard
  - Number of bursts, number of packets lost in bursts, number of packets discarded in bursts [RFC6958] [RFC7003].

• RLE metrics for loss, discard and post-repair
  - RLE metrics for loss [RFC3611], RLE metrics for discard [draft-ietf-xrblock-rtcp-xrdiscard-metrics-00], RLE metrics for post-repair [5725].

• jitter buffer metrics
  - De-jitter buffer nominal delay, de-jitter buffer maximum delay [RFC7005].
Next Step

• Comments and suggestions?
• Need feedback from RTCWEB.
• First presented in last meeting and will be proceeded as individual submission for a long time.