

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-xrblock-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-xr-discard-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.