

XR Block Working Group
Internet-Draft
Intended status: Standards Track
Expires: April 13, 2014

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October 10, 2013

Additional RTP Control Protocol (RTCP) Extended Report (XR) Metrics for
WebRTC Statistics API
[draft-singh-xrblock-webrtc-additional-stats-00](#)

Abstract

This document describes a list additional identifiers used in WebRTC's Javascript statistics API. These identifiers are a set of RTCP XR metrics related to the transport of multimedia flows.

Status of This Memo

This Internet-Draft is submitted in full conformance with the provisions of [BCP 78](#) and [BCP 79](#).

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metrics defined in RTCP Extended Reports (XR), an in depth discussion about the XR metrics candidates is carried out in [[I-D.huang-xrblock-rtcweb-rtcp-xr-metrics](#)].

2. Candidate XR Block Metrics

This group of identifiers are well defined on a ReportGroup corresponding to an SSRC and are intended to complement the identifiers in Section 4.1 of [[I-D.alvestrand-rtcweb-stats-registry](#)].

The following contact information is used for all registrations in this document:

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2.1. Variables from XR Blocks

2.1.1. Packets and Octets Discarded

Name: PacketsDiscarded

Definition: Cumulative Number of RTP packets discarded, [Appendix A of \[RFC7002\]](#)

Name: OctetsDiscarded

Definition: Cumulative Number of octets discarded, [Appendix A of \[I-D.ietf-xrblock-rtcp-xr-bytes-discarded-metric\]](#)

2.1.2. Cumulative Number of Retransmitted Packets Received

Name: PacketsRetx

Definition: See [Appendix A](#) of this document, [RFCXXXX].

RFC EDITOR NOTE: please change XXXX in [RFCXXXX] by the new RFC number, when assigned and remove this note.

2.1.3. Cumulative Number of Packets Repaired

Name: PacketsRepaired

Definition: [Appendix A](#) (b) of [[I-D.huang-xrblock-post-repair-loss-count](#)]

2.1.4. Frame Impairment Metrics

Name: FullFramesLostCount

Definition: Number of full frames lost, [Appendix A \(i\)](#) of [\[RFC7004\]](#)

Name: PartialFramesLostCount

Definition: Number of full frames lost, [Appendix A \(j\)](#) of [\[RFC7004\]](#)

Name: FramesDiscardedCount

Definition: Number of full frames discarded, [Appendix A \(g\)](#) of [\[RFC7004\]](#)

3. IANA Considerations

This document requests IANA to update the registry described in [\[I-D.alvestrand-rtcweb-stats-registry\]](#) with the identifiers defined in [Section 2](#).

4. Security Considerations

The security considerations of [\[I-D.alvestrand-rtcweb-stats-registry\]](#), apply.

5. Acknowledgements

This document is a product of discussion in XRBLOCK WG, initial motivation for this documented is discussed in [\[I-D.huang-xrblock-rtcweb-rtcp-xr-metrics\]](#)

The authors would like to thank Al Morton, Dan Romascanu, and Shida Schubert for their valuable comments and suggestions on earlier version of this document.

6. References

6.1. Normative References

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[I-D.alvestrand-rtcweb-stats-registry] Alvestrand, H., "A Registry for WebRTC statistics identifiers", [draft-alvestrand-rtcweb-stats-registry-00](#) (work in progress), September 2012.

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- [RFC3611] Friedman, T., Caceres, R., and A. Clark, "RTP Control Protocol Extended Reports (RTCP XR)", [RFC 3611](#), November 2003.
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- [I-D.huang-xrblock-post-repair-loss-count] Huang, R. and V. Singh, "RTP Control Protocol (RTCP) Extended Report (XR) for Post-Repair Non-Run Length Encoding (RLE) Loss Count Metrics", [draft-huang-xrblock-post-repair-loss-count-00](#) (work in progress), September 2013.
- [RFC7004] Zorn, G., Schott, R., Wu, Q., and R. Huang, "RTP Control Protocol (RTCP) Extended Report (XR) Blocks for Summary Statistics Metrics Reporting", [RFC 7004](#), September 2013.

6.2. Informative References

- [I-D.ietf-rtcweb-use-cases-and-requirements] Holmberg, C., Hakansson, S., and G. Eriksson, "Web Real-Time Communication Use-cases and Requirements", [draft-ietf-rtcweb-use-cases-and-requirements-10](#) (work in progress), December 2012.
- [I-D.huang-xrblock-rtcweb-rtcp-xr-metrics] Huang, R., Even, R., and V. Singh, "Consideration for Selecting RTCP Extended Report (XR) Metrics for RTCWEB Statistics API", [draft-huang-xrblock-rtcweb-rtcp-xr-metrics-01](#) (work in progress), July 2013.

[Appendix A](#). Metrics represented using [RFC6390](#) Template

RFC EDITOR NOTE: please change XXXX in [RFCXXXX] by the new RFC number, when assigned and remove this note.

a. Number of Packets Retransmitted Metric

- * Metric Name: Cumulative number of RTP Packets retransmitted
- * Metric Description: Total number of packets retransmitted from the beginning of the session.
- * Method of Measurement or Calculation: Cumulative number of retransmitted packets received from the beginning of the session. The measured value is an unsigned value. If the measured value exceeds 0xFFFFFFFF, the value 0xFFFFFFFF MUST be reported to indicate an over-range measurement. If the measurement is unavailable, the value 0xFFFFFFFF MUST be reported.
- * Units of Measurement: The counter is increased by one for every retransmitted RTP packet that is received.
- * Measurement Point(s) with Potential Measurement Domain: This metric reports the number of retransmitted RTP packets received by the receiver. The measurement of these metrics are made at the receiving end of the retransmission stream and the association of the retransmission and original streams should refer to [section 5.3 of \[RFC4588\]](#).
- * Measurement Timing: This metric is applicable to cumulative measurements, which may be the duration of the ongoing RTP session.
- * Use and applications: See [section 1](#) of [RFCXXXX].
- * Reporting model: Queried periodically by the WebRTC Statistics API.

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