RMCAT minutes, IETF 105
Thursday, July 25, 2019, at 17:40 - 19:10
Room: Sainte-Catherine

Chairs:
Anna Brunstrom (anna.brunstrom@kau.se)
Colin Perkins (csp@csperkins.org)
Martin Stiemerling (mls.ietf@gmail.com)

1) Administrativa and WG status -- chairs
Minute taker: Stephan Wenger
Jabber scribe: Jonathan Lennox

Chairs gave an overview of the WG status. The last evaluation drafts have passed WGLC and all active drafts should soon be done.

2) NADA updates and evaluation results -- Xiaoqing Zhu (remote)

Xiaoqing Zhu summarised changes with the NADA draft that was submitted today. These include changes to the algorithm to address Mirja's comments, and the addition of the missing security considerations section. She also presented some results on the influence of the rate shaping buffer, including comparisons with TCP traffic. In response to a clarifying question from Mirja, she explained that the control of the rate shaping buffer is optional as it is external to the congestion controller and may not always be accessible.

Xiaoqing Zhu also presented an update on the NADA implementation in the Mozilla browser. This has been ported to a more recent version of the WebRTC code, updated to more closely match the one-way delay-based congestion control parts of the latest NADA algorithm (the implementation doesn't yet react to packet loss; it's currently an entirely delay-based congestion controller). It uses congestion feedback as in the Holmer draft. The implementation has been tested against an unmodified Chrome browser, and has been shown to interoperate. Xiaoqing presented results demonstrating the behaviour of the implementation in a local WiFi testbed, and across various wide-area paths with differing degrees of cross traffic.

Shuai Zhao suggested it might be useful to test between two instances of the Chrome browser running over the same path as the NADA to Chrome flow to compare. Jonathan Lennox suggested that tests on home ADSL, or on mobile wireless links, might be useful for the bandwidth constrained case. Anna Brunstrom also suggested parallel calls to show the NADA congestion control running over the same path at the same time with Google congestion control in Chrome. Nils Ohlmeier noted that there is a command line tool called comcast tool for limiting the bandwidth for a given port/protocol that might be useful.

3) RTCP feedback for congestion control -- Colin Perkins

Colin Perkins gave an update on the congestion control feedback draft discussed earlier during the week in the avtcore meeting. A new version of the draft has been submitted that integrates the experiences from the hackathon at IETF 104. All updates are clarifications. There are no changes to the packet format. The two most relevant updates for rmcat is clarifying how to handle feedback for FEC/retransmission packets and how to behave when multiple congestion control feedback packets are lost. The two minor open issues are a comparison with the Holmer draft and conversion between per-SSRC sequence numbers and unified sequence numbers carried in header extension. Aim for WGLC before Singapore.

Zahed Sarker noted that a comparison with homer draft has been done already during the design work. Why do we need it here? Colin sees no real benefit, but explains that avtcore has asked for it. Jonathan Lennox pointed out that the homer draft is widely deployed. Switching to an alternative needs justification for deployment. But the advantage of not having the header extension is good motivation. Colin will propose text on comparison with the Homer draft on the list. The WGLC will then be sent on both the avtcore and rmcat lists. Colin confirmed that once the avtcore draft is through, he will update the rmcat feedback draft.

4) AOB – no additional issues. Chairs closed the meeting.