RTP Media Congestion Avoidance Techniques (rmcat)

Chairs:
Karen Nielsen <karen.nielsen@tieto.com>
Mirja Kühlewind <mirja.kuehlewind@tik.ee.ethz.ch>
Note Well

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Administrativa

Today’s slides

http://datatracker.ietf.org/meeting/94/materials.html#tsv

Remote participation

Audio: http://ietf94streaming.dnsalias.net/ietf/ietf947.m3u

Meetecho: http://www.meetecho.com/ietf94/rmcat

Jabber chat

xmpp:rmcat@jabber.ietf.org?join

Mailing list

http://www.ietf.org/mailman/listinfo/rmcat
WG Document Status

Requirements, interfaces & evaluation
- draft-ietf-rmcat-cc-requirements-09 [RFC Ed Queue > 300 days: MISSREF]
- draft-ietf-rmcat-eval-criteria-04 [updated, co-editor needed]
- draft-ietf-rmcat-cc-codec-interactions-01 [new, reviews needed]
- draft-ietf-rmcat-eval-test-02 [reviews needed]
- draft-ietf-rmcat-wireless-tests-00 [upcoming merge with draft-fu-rmcat-wifi-test-case]

Algorithm candidates & Co
- draft-ietf-rmcat-nada-01 [updated]
- draft-ietf-rmcat-scream-cc-02 [updated]
- draft-ietf-rmcat-gcc-01 [new]
- draft-ietf-rmcat-sbd-03 [updated]
- draft-ietf-rmcat-coupled-cc-00 [new]

Expired
- draft-ietf-rmcat-rtp-cc-feedback-00 [waiting for input from candidates]
Drafts Status

Evaluation
  draft-zhu-rmcat-video-traffic-source-02
  draft-fu-rmcat-wifi-test-case-01 [upcoming merge with draft-ietf-rmcat-wireless-tests]

Algorithm candidates & co
  draft-singh-rmcat-adaptive-fec-02

Interactions and signaling
  draft-holmer-rmcat-transport-wide-cc-extensions-01 [updated]

Missing
  draft-singh-rmcat-cc-app-interactions
eval-criteria (1/2)

• Major update in -04

• Guidelines are removed
  – **Reason**: overlap with requirements
  – Group has made progress on
    • Wireless test-cases
    • Simulating video
eval-criteria (2/2)

• Added:
  – Short TCP model (as discussed in Prague, IETF93)

• Minor updates pending
  – Add details to Google’s Jitter model
  – Metrics…
    • Add more as evaluations mature
Milestone Update

Done  Adopt first WG draft on requirements
Done  Adopt first WG draft on evaluation criteria
Done  Adopt first WG draft of RTCP extensions for use with congestion control algorithms and interactions between applications and RTP flows (if needed)
Done  Adopt first congestion control candidate as WG draft
Done  Adopt first WG draft on identifying and controlling groups of flows

Dec 2015  Submit requirements and evaluation criteria to IESG as Informational
Dec 2015  Submit identifying and controlling groups of flows to IESG for Experimental publication
Dec 2015  Submit first congestion control candidate to IESG for Experimental publication
Dec 2015  Submit interactions between applications and RTP flows to IESG as Informational
Dec 2015  Submit RTCP extension requirements for use with congestion control algorithms to AVTCORE (if needed)
Feb 2016  Publish first draft of evaluation results
Feb 2016  Publish first draft of Standards Track congestion control algorithm
Feb 2016  Publish first draft of techniques to detect, instrument or diagnose failing to meet RT schedules
Jun 2016  Submit techniques to detect, instrument or diagnose failing to meet RT schedules to IESG as Informational
Oct 2016  Submit congestion control to IESG for Proposed Standard
Reviews

- draft-ietf-rmcat-cc-codec-interactions-01
  - Better before, but no later than January 29
  - Names: Stefan H, Bo, Michael R, Randell

- draft-ietf-rmcat-eval-test-02
  - Better before, but no later than January 29
  - Names: Safiqul, Stefan, Randell
15:20  WG Status & Agenda Bashing *(Chairs)*

15:40  Test Cases for Evaluating RMCAT Proposals (incl. Wireless Networks) *(Zahed Sarker)*

16:00  RTP Extensions for Transport-wide Congestion Control *(Stefan Holmer)*
   [draft-holmer-rmcat-transport-wide-cc-extensions-01](https://datatracker.ietf.org/doc/draft-holmer-rmcat-transport-wide-cc-extensions-01/)

16:20  Shared Bottleneck Detection for Coupled CC for RTP Media *(David Hayes)*
   [draft-ietf-rmcat-sbd-01](https://datatracker.ietf.org/doc/draft-ietf-rmcat-sbd-01/)
09:00 Intro & Wrap-Up Monday meeting ( Chairs)

09:10 Update on Video Traffic Source Model for RMCAT Evaluation (Xiaoqing Zhu)
   draft-zhu-rmcat-video-traffic-source-02

09:25 Coupled congestion control with GCC ( Safiqul Islam)
   draft-ietf-rmcat-coupled-cc-00

09:55 Update on GCC ( Stefan Holmer)
   draft-ietf-rmcat-gcc-01

10:15 Updated evaluation results on NADA (Xiaoqing Zhu)
   draft-ietf-rmcat-nada-01

10:45 Updates on SCReAM - An implementation experience (Zahed Sarker)
   draft-ietf-rmcat-scream-cc-02

11:05 Considerations for draft-singh-rmcat-cc-app-interactions (Varun & Stefan)
RMCAT Generic Feedback Message(s)

• Give usage of common feedback message(s) a try.
  – Varun-RMCAT list: "Main reason is that endpoints implementing any of the RMCAT algorithms can interoperate with each other"
  – Means that all RMCAT CC algs need rely on the same set of information content and rate and timing from receiver
  – Differences in RMCAT CC algs only on sender side

• Way forward ?
  – Requirements to be considered in each CC algs draft
  – Draft-ietf-rmcat-rtp-cc-feedback draft to analyse required feedback rates and timing as well as content – and point to existing remedies and/or what new needed.
    • Do this now or wait until we are closer to knowing which CC algs that go for standards track ?