Using RTCP Feedback for Unicast Multimedia Congestion Control
draft-perkins-rmcat-rtp-cc-feedback-01

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Motivation

• Transport protocol provides a feedback loop

• Dynamics of congestion control depend on rate of feedback, and type of information returned

• RTCP provides a feedback channel for RTP-based applications – what sort of feedback can it provide?
Summary of Draft

• Questions to ask regarding congestion feedback:
  • How often is feedback needed?
  • How much overhead is acceptable?
  • How much, and what, data does each report contain?

• How often can feedback be sent in RTCP?
  • Per-packet – probably not
  • Per-video frame – yes, with reasonable assumptions
  • Per-RTT – yes in many cases, provided RTT is not too low
  • Conclusion: if configured correctly, RTCP can support congestion control without extension
  • Rough draft, to illustrate the point – more details will need to be added if adopted
Status and Next Steps

• Draft was originally not intended to progress
  • Presented at IETF 86 to inform discussion

• Working group has rtcp-requirements milestone:
  • “Determine if extensions to RTP/RTCP are needed for carrying congestion control feedback, using DCCP as a model. If so, provide the requirements for such extensions to the AVTCORE working group for standardization there.”
  • Chairs suggested this draft might be suitable for that milestone – is there interest in developing it for that purpose?