Updates on draft-alvestrand-rmcat-congestion-03

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Outline

- Draft Updates

- Future Work

Updates

- Changed receiver-side/sender-side controller with delay-based/ loss-based controller.
  - The controller's position is not strict.
- Switched from frame-based processing to groups of packets.
  - Better handling of bursty deliveries common on WiFi and mobile networks.
- Swapping MIMD with AIMD in the delay-based controller.
  - A first step towards improved fairness.

Updates

- Inserted a new section on feedback and extensions.
  - RTP Header Extension for Absolute Sender Time
  - New feedback format
- Removed section on multiple streams and transmission time offsets.
  - This section has been replaced by the previous one.
- Improvements to the threshold adaptation in the "Over-use detector" Section.
  - Avoid adapting the threshold when "large" latency spikes occurs.
  - Parameters optimized offline using simulations. Further tunings as we evaluate in the wild.

Future Work

- Move the delay-based controller to the sender.
  - All the logic at the sender makes the algorithm more robust in the presence of middleboxes.
  - Easier to experiment and interop with other solutions.
- Improve the loss-based controller.
- Simplify the filter/detection process.
- Consider feedback from the network, i.e., ECN.
- Consider improvements for mobile networks.