Loss Detection and Congestion Control

draft-iyengar-quic-loss-recovery-01

Draft Outline

- Design of the QUIC Transmission Machinery

- Loss Detection

- Congestion Control
  - Will describe how to do NewReno congestion control for QUIC

- TCP Mechanisms in QUIC
  - Source TCP RFCs, drafts, papers for repurposed mechanisms

Loss Detection

- Separates Loss Detection from Loss Recovery
  - Recovery in main protocol draft

- Similar in spirit to TCP Rack
  - draft-ietf-tcpm-rack-01 (adopted by tcpm wg)
  - RACK uses time-ordering instead of TCP sequence numbers

- QUIC packet-number is time-ordered

Work to be done (major items)

- Describe algorithm in more detail
  - Rationale for constants

- Describe RTT measurement
  - RFC 6298 algorithms repurposed for QUIC

- Describe NewReno congestion control
  - RFC 5681 algorithms repurposed for QUIC