

# Explicit Congestion Notification for RTP

draft-ietf-avtcore-ecn-for-rtp-05

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# Document Status

- Document (-04) has gone through WG last call
- Many thanks to our reviewers:
  - Thomas Belling
  - Roni Even
  - Bill Ver Steeg
  - Dan Wing
  - Qin Wu
- A new version (-05) was submitted addressing the more minor issues
- Two open issues remain

# Open Issue #1: Interactions with ICE

- Process to check for ECT capable path using ICE:
  - a) Do normal ICE
  - b) Do additional STUN checks as an ECN validation
  - c) If (b) showed ECN worked, start sending RTP with ECN
  - d) If (b) showed ECN failed, start sending RTP without ECN
- Dan Wing noted that steps (b-d) can add additional call setup time, which is undesirable
- Proposal:
  - If the call has been answered, media should be sent without ECN once the normal ICE exchange has completed
  - STUN checks for ECN validation can then be done in parallel to media, at low rate, with ECN being enabled if they succeed (alternatively, switch to using RTP/RTCP for ECN validation at this point)

# Open Issue #2: Support for Multicast

- The draft requires all receivers, and the paths to all receivers, of a multicast flow to support ECN, else it falls back to not using ECN
- Bill Ver Steeg raised the concern that this is highly conservative, and does not scale to large groups
- We agree, but don't have a better proposal
  - Allowing some non-ECN capable receivers causes fairness issues when the bottleneck link is shared by ECN and non-ECN flows that we haven't (yet) been able to satisfactorily address
  - Proposal: add a note to say that the multicast ECN rules are known to be conservative, and may be relaxed in a future version of the specification; and encourage experimentation to determine a less conservative, but still relatively fair, response

# Next Steps

- Address these open issues and submit -06 for new WG last call