ECN++: Adding Explicit Congestion Notification (ECN) to TCP Control Packets

draft-ietf-tcpm-generalized-ecn-02

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TCPM WG – IETF 100
Pure ACKs

• Issue: ECT marking of Pure ACKs and how to respond to the congestion signal in Pure ACKs
• ECT marking: Important to prevent higher dropping of Pure ACKs in case of congestion
• Responding to congestion signal: Congestion control algorithm must respond to signals
• Bias: In case the endpoint is sending only Pure ACKs, the response to congestion will always be to reduce the sending rate
  – No possibility of non-congestion signal
Pure ACKs (II)

• Proposed (and agreed) way forward: Only ECT marking of Pure ACKs if AccECN enabled.
  – AccECN provides information about the number of packets AND the number of bytes that encountered congestion
    • In the case of a CE in a Pure ACK, the number of packets would be increased but not the number of bytes
  – This provides detailed information to the endpoint to react accordingly.
Next steps

• Update draft to reflect Pure ACKs
• Ready for WGLC