toward a zero-bit world

Brian Trammell, ICCRG, IETF 102 Montreal

some context

- <u>draft-wg-mm-effect-encrypt</u> identified various transportlayer "enhancements", especially in mobile networks, as being incompatible with encryption of layer 4 (as in QUIC).
 - Indeed, breaking these boxes is part of the point of encrypted transport protocols, since they make the transport layer brittle.
- Ask from the IAB to the ICCRG: is there anything we can do to reduce the impact of encryption here?

some more context

- the ACCORD BoF (IETF 95, Buenos Aires) addressed transport-layer signaling to the (mobile) network stack to replace content classification.
- Discussion centered on replacing all this with one bit (loss/latency tradeoff) or zero (better AQM and better CC).
- What is the state of this zero-bit solution in mobile networks, and can we help?

work to be done in ICCRG?

- a venue for research on Internet-safe CC algorithms that interact well over LTE, whatever-5G-will-be, and other challenging paths?
- a clearinghouse for data (esp. mobile network parameters/traces) that can inform this research?