Discussion on Congestion Control work in the IETF: the role of ICCRG

Michael Welzl

TSVAREA @ IETF 98
Chicago, 27.3.2017
A bit of history

• ICCRG was created because highly experimental CCs were proposed for TCP...
  (Cubic, HTCP, Compound TCP)
  ... and brought to TCPM.
  – But TCPM was (and still is) quite busy

• Phrase at the time was: “we need to push proposals over the fence (to ICCRG) for a while, until they’re ready”

• This is still how we operate
  – And we’re happy with it!
ICCRG in action

IW = 10

IETF#75, 2009

TCPM

IETF#77
IETF#78
IETF#80

https://clipartfest.com/
ICCRG can publish RFCs too

- IRTF track, informational or experimental
- But we have only two
  - "Open Research Issues in Internet Congestion Control", RFC 6077 (Informational), February 2011.

- Why?
  - Only because authors never pursued this path
  - Didn’t want to? Didn’t care?
Do we need something else?

• IETF: CC. work spread around TSV area

• Personal opinion: inevitable.
  – Congestion control mechanism is intrinsically tied to the framework it operates in
  – Examples
    • RMCAT: RTP-based, common feedback, ..
    • TCP: controls follow TCP “rules” (“timeout if all is lost”, ..)
    • MPTCP: controls made along the goals outlined for MPTCP (exploit multiple paths, yet fair on common bottleneck)
    • LEDBAT: lacks framing – should perhaps have been IRTF Exp!

• Your happy trashcan is always there to serve you!
Questions?