Guidelines for Internet CC draft-fairhurst-tsvwg-cc

Gorry Fairhurst
University of Aberdeen

gorry@erg.abdn.ac.uk

Overview

- The IETF has said much about Congestion Control (CC).
- The general recommendation of RFC8085 is to leverage existing CC methods.... but that isn't always the way to go.
- I decided to write ~4 page document on the core things that would encourage a CC to "play well"
- The RFCs already say this stuff...
- Well...., and it took more than 4 pages!

Draft Revision

-00 Initial draft

Consumed 26 key RFCs looking for wisdom - it was there, but scattered.

- -01 More coherent
- -02 to Fix some annoying typos
- -03 Starvation, FEC, RFC5783
 - -04 Where we are today...

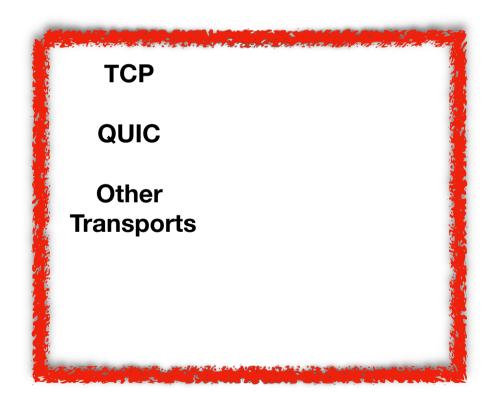
Section 3: Principles of Congestion Control

- There are a diversity of Path Characteristics
- Flow multiplexing and congestion can be annoying
- Most important is to avoid congestion collapse

Section 4: Guidelines for Performing CC

- Connection Initialisation ("RTO", "IW")
 - Using Path Capacity ("CC", "Bursts")
 - Timers and Retransmission
 - Responding to (potential) Congestion (congestion, ECN)
 - Using More Capacity ("Slow-start", etc)
 - Network Signals (Trust)
 - Protection of Protocol Mechanisms ("on path", "off path")

Where does this lead?



This could lead to a change to BCP41 (RFC2914)

Questions to WG



Will / has anyone read this?

Does anyone care?

Who will help me? ... or should I spend my time otherwise?

Can we do this work in tsvwg?