Guidelines for Internet CC
draft-fairhurst-cc

Gorry Fairhurst

gorry@erg.abdn.ac.uk
Overview

- The IETF has said much about Congestion Control (CC)
  - Normatively in RFC2814,.... and at least 10 other RFCs
  - More than 40 other informative reference RFCs
Overview

• The IETF has said much about Congestion Control (CC)
  • Normatively in RFC2814,.... and at least 10 other RFCs
  • More than 40 other informative reference RFCs
• In 2019, I decided to write ~4 page document on the core things that would encourage a CC to "play well"
Overview

• The IETF has said much about Congestion Control (CC)
  • Normatively in RFC2814,.... and at least 10 other RFCs
  • More than 40 other informative reference RFCs
  
• In 2019, I decided to write ~4 page document on the core things that would encourage a CC to “play well”
  
• Well…. , it took more than 4 pages!
• So in Singapore, the minutes note:
  • 4 people spoke at the Mic encouraging to progress this
  • We would *gather people to talk* and *define this together*
Principles of Congestion Control

• Transport has changed

• There are still a diversity of Path Characteristics

• Preventing Persistent Congestion
  • Starvation, congestion collapse, etc

• Reacting to Incipient Congestion
  • Flow multiplexing and capacity sharing
Draft Revisions

• I rewrote, restructured, and changed things.

• This resulted in 843 lines changed or added.

• Latest -07
# Table of Contents

draft-fairhurst-tsvwg-cc

1. Introduction ................................................. 3
   1.1. Incipient and Persistent Congestion ................. 3
   1.2. Avoiding the effects of Persistent Congestion .... 4
   1.3. Mitigating the effects of Incipient Congestion ... 5
   1.4. Current Challenges .................................... 6

2. Terminology .................................................. 7

3. Author's Note on Additional Material ....................... 8

4. Requirements from the RFC Series .......................... 8

5. Principles of Congestion Control ........................... 11
   5.1. Preventing Persistent Congestion .................... 11
   5.2. Reacting to Incipient Congestion .................... 12

6. Acknowledgements ............................................. 18
Questions to WG

• In 2019 I asked:

• Will / has anyone read this?

• Does anyone care?

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