Guidelines for Internet Congestion Control at Endpoints

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draft-fairhurst-ccwg-cc-00
replaced draft-fairhurst-tsvwg-cc

BCP41:
Congestion Control Principles

Outrageous opinion(s):

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The target is to replace or update RFC 2914 (Sally Floyd, 2000)

Requirements from the RFC Series

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Still true: The Internet continues to be heterogenous!

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3.1 The need to React to Congestion

3.2. Tolerance to a Diversity of Path Characteristics

3.3. Protection of Protocol Mechanisms

Incipient v persistent congestion

Congestion

Incipient congestion: a consequential side effect of the statistical multiplexing of packet flows the pattern of arriving traffic results in over consumption of the path resources.

Persistent congestion: could adversely impact other flows, e.g., starving them of resources; or reduce the efficiency of the path (e.g., congestion collapse).

Principles of Congestion Control

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4.2. Detecting and Reacting to Incipient Congestion

4.3. Avoiding Persistent Congestion

(i.e. avoiding Congestion Collapse and Flow Starvation)

Principles

Next Steps

If there is interest, can we adopt this? .... and will we finish it?

I said that I would give-up if nobody joined me - someone has offered, will you come and help also?

In a 1948 speech to the House of Commons, Churchill paraphrased
'Those who fail to learn from history are condemned to repeat it.'