A Mechanism for ECN Path Probing and Fallback

draft-kuehlewind-tcpm-ecn-fallback-01
Mirja Kühlewind and Brian Trammell
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The idea

• We want to turn ECN on by default
  • Increasing “server-mode” adoption, but almost no usage on the open Internet
• Need to increase confidence that default won’t degrade connectivity or performance
• Dynamic detection and fallback to no-ECN
The document

- Algorithm for detection of ECN-unsafe paths after ECN negotiation
  - Inject ECN marking pattern and observe the results
  - Fall back if ECN causes connectivity problem (but not if it fails to echo CE)
- Update since Berlin: more illustration
The future

-01 revision: ECN failure at start of flow post-negotiation.

A better idea: explore how and when ECN can fail…

… and define approaches to detect and recover from failure

of which the present algorithm is an instance.

Consider an expansion into guidelines for general-case fallback for optional transport features?

-02 revision post-Vancouver, request for adoption after discussion.