Guidelines for Adding Congestion Notification to Protocols that Encapsulate IP
(draft-ietf-tsvwg-ecn-encap-guidelines-08)

Bob Briscoe (bobbriscoe.net)
John Kaippallimalil (Huawei)
Pat Thaler (Broadcom)

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Purpose of this (BCP) draft:

- Guidelines on addition of explicit congestion notification (ECN) to protocols that encapsulate IP
  - e.g. tunnels, lower layers

Not straightforward

- cross-layer
  - some lower layers have very different feedback structure
  - incremental deployment
    ECN propagation requires new logic in layer-egress and hosts

- cross-organisation
  - IEEE: https://datatracker.ietf.org/liaison/1364/
  - 3GPP: https://datatracker.ietf.org/liaison/1424/

- Split out normative updates to standards track RFCs into a fast-tracked draft (PS)
  - draft-ietf-tsvwg-rfc6040update-shim-04
Recent activity

ECN visible to RLC?

• Proposal to add ECN support to 3GPP Rel15 protocols that encapsulate IP and are accessible to the Radio Link Control layer [1]

• Relative merits of using a) ECN vs. b) RAN based codec adaptation
  • Jun'17: 3GPP TSG-RAN WG2 “NR (New Radio) Ad Hoc” discussed
  • Various alternative proposals [2] to support 1) both or 2) solely 'b'
  • Considerable misunderstandings of the benefits and implementation implications
  • Decision deferred to August meeting

• Pls encourage your 3GPP delegates to understand the implications

[2] Intel, “ECN and RAN-assisted codec adaptation” Tdoc 3GPP TSG-RAN WG2 #98 R2-1707014
Recent activity
ECN support in trill

- draft-ietf-trill-ecn-support (EXP)
- WGLC completed
- Will sit on hold due to normative ref to draft-ietf-ecn-encap-guidelines (BCP)
  - for when trill encapsulates a non-IP protocol
draft-ietf-tsvwg-ecn-encap-guidelines

Status and Next Steps

- -09 revision edits queued
- Rewritten the section summarising relevant stuff from 6040update-shim
- Waiting for comments this week on 6040update-shim before committing the edits

- Otherwise, stable for some time
- WGLC milestone Sep 2017