

Feedback on

Retransmission Timeout Requirements (draft-ietf-tcpm-rto-consider-08.txt)

Feedback from Gorry Fairhurst



My context when reading

RFC 8085 aligned with an earlier rev of RTO-Consider

draft-fairhurst-tsvwg-cc also is talking about Timers

This sets out to BCP status.

Good News

I read draft-ietf-tcpm-rto-consider

I found this **is** readable

It seems correct to me

In one or two places it says "vague" things

... but I don't know better text.

It (mostly) comes to the same "conclusions" as *CC Guidelines*

Does this update existing RFCs?

(Comment 1)

The correct way to view this document is as the default case and these other specifications as agreed upon deviations from the default.
– where as the abstract concludes:

Within the requirements, implementations have latitude to define particulars that best address each situation.
– Does this update existing RFCs?

As also:

E.g., a protocol like SCTP (or DCCP) could leverage...

– Is that over-riding the RFCs that define these, or is this intended as:
“E.g., a new protocol with a design like SCTP [[RFC4960](#)] could leverage”

Regularly and recent

(Comment 2)

In steady state the RT0 SHOULD be set based on recent observations of both the FT and the variance of the FT.

- I don't think these are wrong, but I think the advice is not very crisp for a BCP - how recent? How does this relate to Comment 3?

(Comment 3)

FT observations SHOULD be taken regularly ...

The notion of "regularly" **SHOULD** be defined as at least once per RTT or as frequently as data is exchanged in cases where that happens less frequently than once per RTT.

- To me, reads as impossible RFC2119 text, is this a definition or something else? or Designs are REQUIRED to define ... etc.

I hope this actually is intended to be:

FT observations SHOULD be taken be at least once per RTT or as frequently as data is exchanged in cases where that happens less frequently than once per RTT.

NiTs on choice of words

(Comment 4)

Retransmissions triggered by the RT0 mechanism MUST be taken as indications of network congestion and the sending rate adapted using a standard mechanism (e.g., TCP collapses the congestion window to one segment [[RFC5681](#)]).

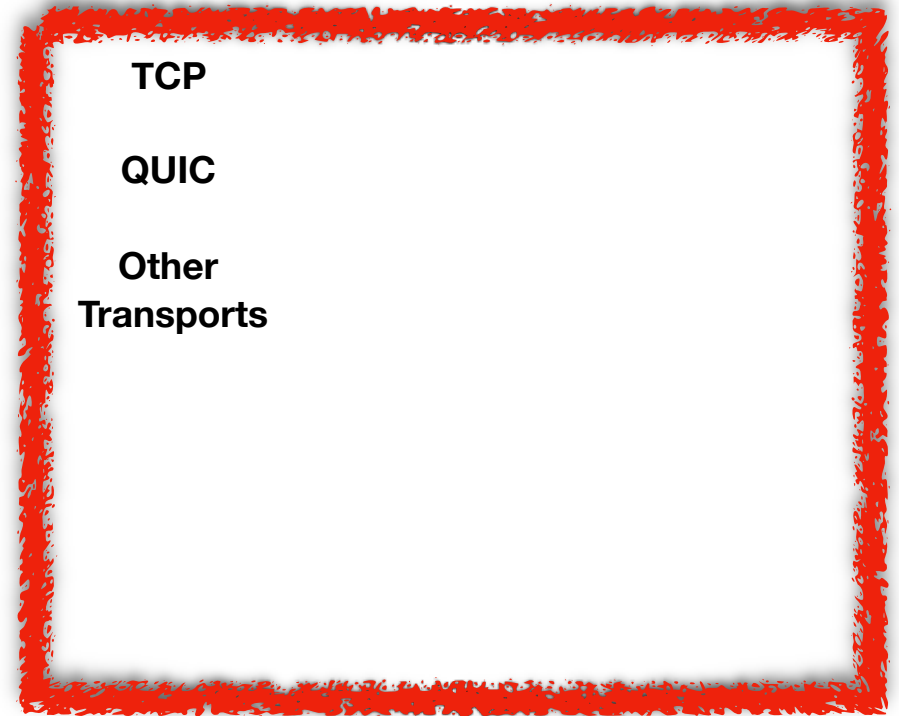
– Is this the retransmissions, or a time-out of the RT0?
(in CC guidelines this described as a lack of response that needs to be handled in this way).

(Comment 5)

Finally, we note that while allowing implementations to be more aggressive may in fact increase the number of needless retransmissions

– I think it would be wiser to say /could/ to be sure no-one seems readable as potentially permissive.

So what about CC Guidelines?



BCP41 (RFC2914)

Much bigger scope, unlikely to come to different conclusion wrt TCP, and the prime focus is on CC.

Not (quite yet) adopted by TSVWG ... only just asked