Active Queue Management (AQM) in the IETF

IETF 86 - TSVAREA

Orlando, Florida

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Goals

- In late 2012, the TSV ADs asked the TSVAREA list (tsv-area@ietf.org) for some feedback on possible AQM work in the IETF

- We got some feedback (THANKS!)

- This presentation summarizes what we think we heard, and asks for more discussion

Background

- Buffers exist, some possibly large
- AQMs can improve performance for traffic hitting a bottleneck, especially real-time interactive traffic competing with loss-based traffic
- Recent AQM proposals:
  - CoDel: draft-nichols-tsvwg-codel
  - PIE: draft-pan-tsvwg-pie
- Recent TSV AQM work:
  - draft-ietf-tsvwg-byte-pkt-congest
- But AQMs are not exactly protocols, and general AQM work may not be clearly in-scope for existing WGs

Should we have a WG?

- This depends on:
  - If there's energy to do "something"
  - Where "something" means either BCPs or Proposed Standards
    - Multiple existing paths exist to do Informational/Experimental documents if there isn't this level of confidence and support for ideas (ICCRG, AD-Sponsored, Independent Stream)

- Assume if there's anything worth doing, that it's too much to bolt onto TSVWG's charter

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We heard:

- Possibly a WG would be productive; some people at least are interested and think this is timely.
- At least one person though it belongs in INT or OPS

What would the WG do?

- Algorithm specs as BCPs / Standards Track?
- General requirements and design space analysis for AQM algorithms?
  - E.g. behaving well under load, being efficient to implement, etc.
- BCPs for configuring “legacy AQM” like RED?

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We heard:

- Lots of thoughts … some see value in specs, at least
- Setting the bar for published specs may require some other work too, e.g. on requirements, how to evaluate algorithms, etc.

Summary & AD Thoughts

- Should we have a WG?
  - Probably yes, if there's rough consensus on 2nd question!
- What would the WG do?
  - Aim for one or more specifications
  - If there's energy, or lots of proposed algorithms, do requirements, test methods, etc.
- Need more feedback, and to identify proponents that are willing to do the work, chair a WG, possibly hold a BoF, work with other areas (e.g. OPS, RAI), etc.