Active Queue Management (AQM) in the IETF

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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.

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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.