Cyclic Queuing and Forwarding for DetNet IP and MPLS Data Plane (TCQF)

...and BIER-TE...

draft-eckert-detnet-tcqf-01

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Continuing from IETF115

- Good Feedback / like of benefits
  - Does not require new packet header (fast adoption in industry ?!!)
  - Works same for MPLS and IP
  - Hopefully/likely ? Can leverage existing CQF queuing hardware (TSN)
    Just need to add forwarding code to select cyclic queue from existin packet header field
  - Low jitter - industrial/”synchronous” traffic use-cases
    - Eliminates need for clock-sync on client devices

- Feedback from David Black
  - Need to refine pseudocode to eliminate unnecessary constraints
    - Only packets that arrived in order from same prior hop need to stay in order
    - Scheduling of packet otherwise arbitrary – as long as all are sent within cycle time limit
    - (Current pseudocode looks as if to imply more oder via “enqueue/dequeue” functions”

What should queuing document have ?

Is TCQF doc a good or bad reference ?

- Describe how it fits into DetNet architecture/topology

- Configuration Data Model
- Textual description of per-hop processing
  - And if different ingres/egres processing
- Description of calculus to determine latency
- Pseudocode
- Scalability / performance (high-speed implementation)

- ...

- What else stands in the way of adoption call ?