P802.1Q??
Time Aware Shaper

Draft PAR v0.2

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PAR

- **2.1 Title:**
  - Standard for Local and Metropolitan Area Networks --- Virtual Bridged Local Area Networks - Amendment: Forwarding and Queuing Enhancements for Scheduled Traffic

- **4.2 Expected Date of Submission for Initial Sponsor Ballot:**
  - 2016-06-00

- **4.3 Projected Completion Date for Submittal to RevCom:**
  - 2016-12-00

- **5.1 Approximate number of people expected to work on the project:**
  - 25

PAR - Scope

- ## 5.2 Scope:
  - This standard specifies time-aware queue-draining mechanisms and MIBs that allow bridges and end stations to provide guarantees of minimum latency and minimum delivery variation for loss-sensitive scheduled data transmission. The mechanisms use the timing derived from IEEE 802.1AS. Virtual Local Area Network (VLAN) tag encoded priority values are allocated, in aggregate, to segregate frames among controlled and noncontrolled queues, allowing simultaneous support of scheduled traffic, 802.1Qav traffic and other bridged traffic over wired Local Area Networks (LANs).

PAR - Purpose

- **5.3 Is the completion of this document contingent upon the completion of another document:**
  - No

- **5.4 Purpose:**
  - Bridges are increasingly used to interconnect devices that support scheduled applications. This standard will specify enhancements to the bridge relay function to provide the best possible performance guarantees to allow for scheduled traffic in an engineered local area (e.g., 802.3) network.

PAR - Need

- ## 5.5 Need:

  – IEEE 802.1Qav works well in arbitrarily shaped (i.e., non-engineered) networks, but its worst-case latency and delivery variation can only be reduced so far. For those applications that need lower latency and delivery variation, the Forwarding and Queuing Enhancements for Scheduled Traffic can deliver the lowest latency and delivery variation as long as the user is willing to engineer the network.

- ## 5.6 Stakeholders for the Standard:

  – Developers and Users of bridged LAN and end-point systems supporting automotive and industrial Ethernet and other latency sensitive applications.