Ultra-Low Latency for Ethernet

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Introduction

- Need to support ultra-low-latency networking
  - end to end through bridges may need to be less than one worst case frame time) ... Christian to elaborate

  - We believe this means explicit and standards-based support for packet preemption and cut-through bridging.
- We believe this means that 802.3 needs to define how a packet "suspend" might be encoded on the wire
  - and for PHY registers necessary to manage and declare this capability ... this is clearly something only 802.3 can do.

Introduction (Cont)

- We also believe both packet preemption and cut-through bridging will require changes to the MAC interface so that the appropriate partial-frame information can be communicated between the MAC and higher layers

  – this needs to be defined jointly by 802.1 and 802.3 (and possibly other MAC groups).

- 802.1 will be defining the internal queues and timers for the bridges and higher level endpoint services, and to handle the negotiations between higher layers.

References

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