CYPRESS

802.17 presentations

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Transit buffer ad-hoc^2

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Baseline assumptions

- ❍ **Multiple options shouldn't complicate the standard**
- ❍ **Lossless transmissions, except for:**
  - – **link failures (cable cuts)**
  - – **transmission errors (noise)**
- ❍ **Cannot mandate large 2nd transit buffer**
  - – **the cost/efficiency set by vendor**
  - – **optimal size depends on link lengths**
- ❍ **Large pass-queue stations is uncompromised by others**
  - – **TDM-like bandwidth affects affect only on-path links**
  - – **jitter is unaffected by small pass-queue replacements**
  - – **(sigh) TDM-like traffic is unclaimable if:**
    - • **Sourced by a small pass-queue station**
    - • **Sourced by a null pass-queue (single queue) station**

Arbitration components

client/control

transit1

????

idles

2*MTU

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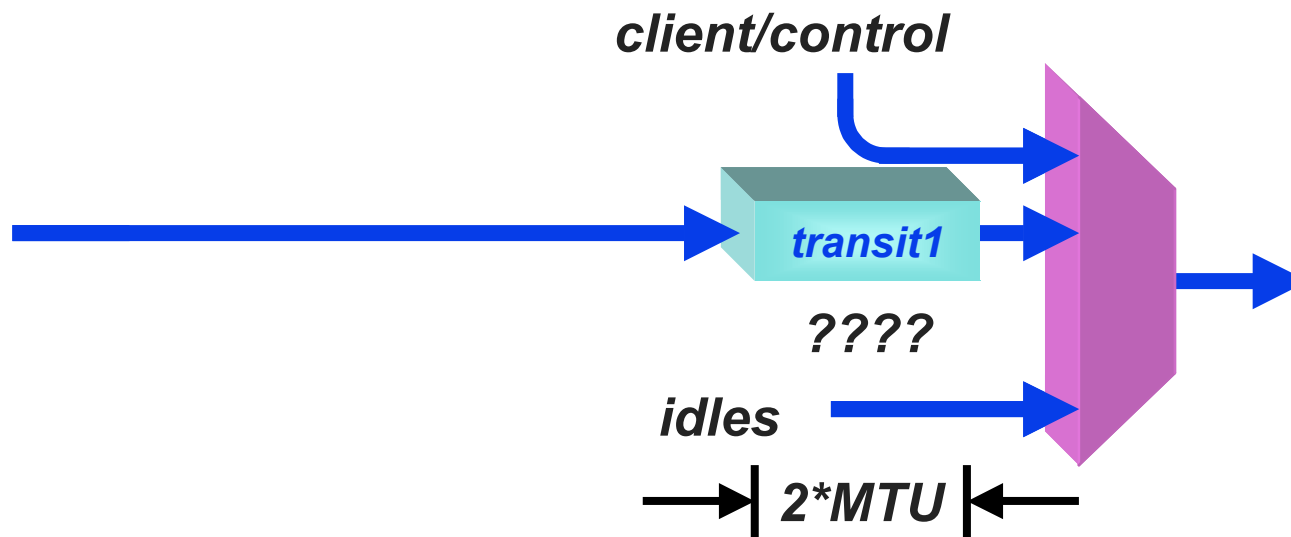
Ad-hoc conclusions

- ❍ **Don't constrain transit designs**
    - – **notation "buffer"➜"queue"**
    - – **enforced FIFO ordering**
    - – **precedence: 1st queue > 2nd queue**
    - – *(any more is controversial)*
- ❍ **Vendor flexibility**
    - – **any 2nd transit-queue sizing > 2*MTU**
    - – **shall maintain jitter behaviors**
    - – **don't complicate the specification**
    - – **2nd size of zero ➜ 1st size is *nominal* 1MTU**
    - – *(unclear if 2nd size of zero implies complexity)*

Proposal options

○ **All RPR stations shall have two transit queues.
The minimum size of both queues is 2 MTUs.**

○ **All RPR stations shall have either:**
  **a) Two transit queues.
     The minimum size of both queues is 2 MTUs**
  **b) One transit queues.
     The nominal size of this queue is 1 MTU
     (as perceived by normal pass-through traffic)**

○ ***Expected* decisions would be based on:**

  – **How is specification complexity measured?**

  – **What is the default draft content?**