RoE RTT measurement considerations

Jouni Korhonen

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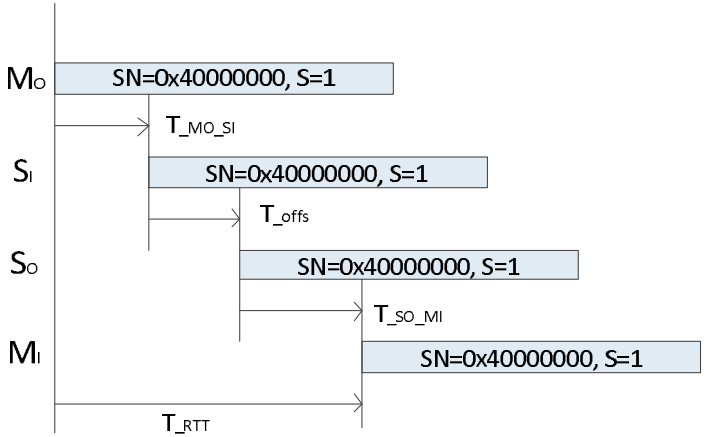
Roundtrip measurements

- Referring back to documents tf3_1506_korhonen_3.pdf (drafting the link setup) and tf3_1506_korhonen_7.pdf (time-synchronization assumptions) there may be cases where e.g. 1588 or 802.1AS are not present..
- The RoE system "master" and "slave" could measure the link roundtrip time themselves and also get synchronized.
- Proposal to introduce a simple mechanism for link synchronization that also is able to measure the roundtrip time.

Approach

- Once "slave" enters the active state it still defers sending *any* RoE packets.
- Once "master" enters the active state is starts sending RoE packets at the agreed rate.
- The reception of the first RoE packet (with S=1,E=?) triggers "slave" to respond with RoE packet (also S=1,E=?).
  - The "master" timestamps (internally) the packet it sends and receives.
  - The difference is the roundtrip time + "slave" internal delay.
  - S & E bits need to be set accordingly.
  - Continue transmission for e.g. 5 "start of frame" worth of time. After that both end can start normal operation.
- If SNs were used the "master" and "slave" SNs are "echoed" back.
- This is similar to CPRI "DL & UL frame timing".

Approach cont'd



- The T_{offs} is known in advance e.g. by configuration or learned during link setup.
- RoE master can measure link RTT using the mechanism described here at any time.

Motion

- Approve the proposed way to measure roundtrip time as presented in tf3_1506_korhonen_10.pdf as a baseline.

- Xx making the motion
- Second by xx

- Technical motion (>2/3)