Hi Goeff,

It is always messy when there is too much text. Let’s see if the attached image will make it clearer.

Best regards,
Rune

Den 05.06.2013 04:06, skrev Geoffrey Garner:
Hi Rune,

Sorry for the slight delay in responding. I want to clarify one point. It appears that the upstream node (D2) sends the next Sync (with sequenceId 101) before it sends the Follow_Up for this Sync (with sequenceId 100). That is because the Sync with Id 101 arrives before the Follow_Up. Did you intend this?

Thanks.

Best regards,

Geoff

On May 31, 2013, at 8:51 AM, Rune Haugom <rune@ontimenet.com> wrote:

Hi Goeff,

We are wondering if you could clearify a question we have related to Figure 11-6 and syncReceiptTimeout in the 802.1as standard. To us it seems that it is possible to get a syncReceiptTimeout after losing one followup message only.

Assume syncInterval=125ms and that device 1 (D1) is a slave to device 2 (D2). The below statements are referring to Figure 11-6 in the 802.1as standard.
- Assume state = WAITING_FOR_SYNC when D1 gets an incoming sync with sequence id=100.
- D1 will move to state = WAITING_FOR_FOLLOWUP and calculate the followUp
timeout to be 125ms from now (t0). (Below we will assume this followup is lost.)
- Due to different timings on the neighbor device (D2) we might get another incoming sync (sequence id=101) at t0+124ms. This Sync message will not be handled at this time.
- D1 will get the followUp timeout at (t0+125)ms and move to state=DISCARD. The already received sync with sequence id = 101 will be discarded in this state.
- At time (t0+250)ms another sync message (sequence id=102) will enter the state machine.
- It is now 250ms since D1 received the sync message with sequence id = 100. And it is 375ms since the last synchronization information that was sent to the portSync entity from the MD entity.
- Since the timers can vary a couple of milliseconds, we might actually get a syncReceiptTimeout since that timer was schedules to happen 375ms into the future at time (t0-125)ms. (t0-125ms is the time the last synchronization information was received by the PortSync entity.)

In this example one can get a syncReceiptTimeout after losing only one followup message. Do you agree/disagree? If you agree, is this the intention?

Best regards,

Rune
OnTime Networks AS
Sync seqId=100
Followup seqId=100
Current state=WAITING_FOR_FOLLOWUP
currentTime=t0-125ms
New synchronization information is sent to the portSync entity etc. which will set the syncReceiptTimeout=(t0-125ms)+375ms = (t0+250ms), since syncInterval=125ms.
New State = WAITING_FOR_SYNC

Sync seqId=101
Followup seqId=101
Current state=WAITING_FOR_FOLLOWUP
currentTime=t0+124ms
124ms is an example. 125ms (syncInterval) on D1 and D2 might not be exactly the same.
New state=WAITING_FOR_FOLLOWUP

Sync seqId=102
Followup seqId=102
Current state=DISCARD
currentTime=t0+250ms
New State = WAITING_FOR_FOLLOWUP

Sync seqId=99
Followup seqId=99
syncReceiptTimeout is very close to this value (t0+250ms) and we might get a syncReceiptTimeout