Interpretation Number: 5-11/04
Topic: Gate Processing ONU Activation State Diagram
Relevant Clause: 64
Classification: Possible defect

Interpretation Request

Classification of a grant as a hidden grant or a back-to-back grant in state diagram shown in “Figure 64–29—Gate Processing ONU Activation State Diagram” is not very clear.

The transition from “check next grant” state to the “Back to back grant” state is shown when (apart from other conditions) “(nextStopTime > stopTime)”. 

NextStopTime is assigned as :-

\[ \text{nextStopTime} = \text{nextGrant.start} + \text{nextGrant.length} - \text{laserOffTime} \]

And stopTime is assigned as :-

\[ \text{stopTime} = \text{currentGrant.start} + \text{currentGrant.length} - \text{laserOnTime} - \text{LaserOffTime} - \text{syncTime} \]

In this case if :-

1) NextStopTime is \(< \text{currentGrant.start} + \text{currentGrant.length} - \text{LaserOffTime} \) AND 
2) nextStopTime \(>\) stopTime

Then the grant will be treated as a back-to-back grant. But this grant will end before the current grant ends \((\text{currentGrant.start} + \text{currentGrant.length} > \text{nextGrant.start} + \text{nextGrant.length})\) Hence is a hidden grant.

Interpretation for IEEE Std 802.3ah-2004

Concerns have been raised about this issue that are being referred to the sponsor for possible action at the next revision.