

To: T10 SAS Protocol working group
From: Bill Martin Emulex
Subject: SAS2r14 late letter ballot comment on resetting of AWT

Revision 0:

Problem:

In 7.13.3, in discussing the resetting of the AWT timer, note 66 states that “connection responses that are only from or may be from expander phys are not included.”; however, 8.2.2.3.2 states:

If this state creates a pending Tx Open message from one of the following:

- a) a Transmit Frame request;
 - b) a Retry Open (No Destination) message;
 - c) a Retry Open (Open Timeout Occurred) message; or
 - d) if the CONTINUE AWT bit is set to zero in the Protocol-specific Port mode page (see 10.2.7.4), then a Retry Open (Retry) message,
- then this state shall:
- a) set the pathway blocked count argument in the Tx Open message to zero; and
 - b) set the arbitration wait time argument in the Tx Open message to zero or a vendor-specific value less than 8000h (see 7.13.3).

These two clauses contradict each other. I believe that item b and c from above should be added to the following list in 8.2.2.3.2:

If a pending Tx Open message was created as the result of this state receiving one of the following:

- a) a Retry Open (Opened By Destination) message;
 - b) a Retry Open (Opened By Other) message;
 - c) a Retry Open (Collided) message;
 - d) a Retry Open (Pathway Blocked) message; or
 - e) if the CONTINUE AWT bit is set to one in the Protocol-specific Port mode page (see 10.2.7.4), then a Retry Open (Retry) message,
- then this state shall set the arbitration wait time argument in the Tx Open message to be the value from the Arbitration Wait Time timer created as a result of the Retry Open message.

Solution:

Change the two portions of text from above to the following:

If this state creates a pending Tx Open message from one of the following:

- a) a Transmit Frame request; or
 - b) if the CONTINUE AWT bit is set to zero in the Protocol-specific Port mode page (see 10.2.7.4), then a Retry Open (Retry) message,
- then this state shall:
- a) set the pathway blocked count argument in the Tx Open message to zero; and
 - b) set the arbitration wait time argument in the Tx Open message to zero or a vendor-specific value less than 8000h (see 7.13.3).

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If a pending Tx Open message was created as the result of this state receiving one of the following:

- a) a Retry Open (Opened By Destination) message;
 - b) a Retry Open (Opened By Other) message;
 - c) a Retry Open (Collided) message;
 - d) a Retry Open (Pathway Blocked) message;
 - e) a Retry Open (No Destination) message;
 - f) a Retry Open (Open Timeout Occurred) message; or
 - g) if the CONTINUE AWT bit is set to one in the Protocol-specific Port mode page (see 10.2.7.4), then a Retry Open (Retry) message,
- then this state shall set the arbitration wait time argument in the Tx Open message to be the value from the Arbitration Wait Time timer created as a result of the Retry Open message.