

Date: March 10, 2003

To: T10 Committee (SCSI)

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Subject: SAS: Transition SSP_TF2 to SSP_TF4 wording changes

1 Overview

This is a problem in the state transition in section 7.15.7.6.3.3 Transition SSP_TF2:Tx_Wait to SSP_TF4:Indication_DONE_Tx in that there is no definition of when the transition should occur. This needs to be fixed. Below is a proposal for that fix.

Change this:

1.0.0.0.0.1 Transition SSP_TF2:Tx_Wait to SSP_TF4:Indicate_DONE_Tx

This transition shall include a Close Connection argument if this state was entered from the SSP_TF1:Connected_Idle state with an argument of Close Connection and the last Tx Balance Status message received had an argument of Balanced.

This transition shall include a Credit Timeout argument if this state was entered from the SSP_TF1:Connected_Idle state with a Transmit Frame Balance Required argument or a Transmit Frame Balance Not Required argument and the last Tx Credit Status message received had an argument of Blocked.

This transition shall include a Credit Timeout argument if:

- a) this state was entered from the SSP_TF1:Connected_Idle state with a Transmit Frame Balance Required argument or a Transmit Frame Balance Not Required argument;
- b) the Credit Timeout timer expires before a Tx Credit Status (Available) message is received; and
- c) the last Tx Balance Status message received had an argument of Balanced or a Tx Balance Status (Balanced) message is received before a ACK/NAK Timeout message is received.

This transition shall include an ACK/NAK Timeout argument if an ACK/NAK Timeout message is received.

To this:

1.0.0.0.0.2 Transition SSP_TF2:Tx_Wait to SSP_TF4:Indicate_DONE_Tx

This transition shall occur and include an ACK/NAK Timeout argument only if an ACK/NAK Timeout message is received.

This transition shall occur and include a Close Connection argument if this state was entered from the SSP_TF1:Connected_Idle state with an argument of Close Connection only after a Tx Balance Status message is received with an argument of Balanced.

This transition shall occur and include a Credit Timeout argument if this state was entered from the SSP_TF1:Connected_Idle state with a Transmit Frame Balance Required argument or a Transmit Frame Balance Not Required argument only after a Tx Credit Status message is received with an argument of Blocked.

This transition shall occur and include a Credit Timeout argument if:

- a) this state was entered from the SSP_TF1:Connected_Idle state with a Transmit Frame Balance Required argument or a Transmit Frame Balance Not Required argument;
- b) the Credit Timeout timer expired before a Tx Credit Status message was received with an argument of Available;
- c) a Tx Balance Status message was received with an argument of Balanced (i.e., the Credit Timeout argument shall not be included in this transition for this reason unless the ACK/NAK count is balanced); and
- d) an ACK/NAK Timeout message was not received.