

TO: T10 Membership
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DATE: 13 August 2004
SUBJECT: T10/04-239r0, ADT - Suggested Resolution of LB Comment Seagate-23

Revision 0:

- Initial version

1. Background from the Comment

Comment:

After sending a Logout, then the port will still be in P2:Logged In, pending receipt of the ACK for the Login. If EFS is set to one immediately, then IUs received before the Logout ACK may enter error recovery.

Suggested Resolutions:

Two approaches:

- A) Change 4.3.2.4.2 to perform transition P2:P0 after sending the Logout IU, which means that received IUs will be discarded by the port; or
- B) Split list item 1) in 4.5.3 into three parts as follows: "1) It shall be set to one after sending or receiving a Port Login IU with the AOE bit set to one; 2) It shall be set to one after receiving a Port Logout IU; 3) It shall be set to one after receiving an ACK IU for a Port Logout IU;" The result of 3) will be to pass received IUs to the upper layer for discarding.

2. Resolution Chosen

Approach A will not work as stated. If the port enters P0:Initial, then any IUs received (before the ACK for the Logout) will cause the port to send NAK IUs with status values of REJECTED, PORT IS LOGGED OUT. They are not discarded as stated in the letter ballot comment.

By the time the other port receives the NAK IUs, it will have entered P3:Logged-Out state and the NAK IUs will be discarded.

Approach B will look similar on the wire, except that ACK IUs are sent. However, this entails passing the received IUs to the upper layer for discarding, which is more complicated than Approach A, where they die in the port.

The chosen resolution is A, with the caveat that NAK IUs will be sent.

3. Suggested Change

4.3.2.4.2 Transition P2:Logged-In to P0:Initial

A port shall transition to P0:Initial after ~~receiving an ACK IU for sending~~ a Port Logout IU.