

BREA Technologies, Inc.14902 Mesita Drive
Houston, TX 77083-3209

P: (281) 530-3063

F: (281) 988-0358

BillG@breatech.com

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To: T10 Technical Committee
From: Bill Galloway
Subj: Bad IU Error Recovery

The last paragraph of 10.7.3.3.3 specifies an error recovery procedure for an initiator that receives a SPI L_Q with an unknown type. This error recovery procedure requires the initiator to flag the error on the packet **after** the L_Q. This does not work when there is no packet after the bad L_Q or when the packet following the bad L_Q is another SPI L_Q. This wording only applies to future standards since there should be no bad types with the current standard. Future standards may add packet types that behave like status IU packet types. Unless SPI-4 initiators behave in this new manner, they may not work with future standards.

I propose that the error recovery procedure for the initiator be just like the initiator getting a CRC error on the SPI L_Q except it sends an ABORT TASK message to the target. Targets are already required to accept an ABORT TASK message here anyway.

Suggested changes to SPI-4 r6

10.7.3.3.3 DT DATA IN phase information unit transfer exception condition handling

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If the initiator receives a SPI L_Q information unit with a type code that is not defined in table 44 that initiator shall create an attention condition ~~after negating the ACK for the last byte of the iuCRC in the SPI L_Q information unit and before negating the ACK for the last byte of the last iuCRC in the information unit that follows the SPI L_Q information unit~~ on or before the acknowledgement of the last iuCRC. When the target switches to a MESSAGE OUT phase the initiator shall send an ABORT TASK message (see 16.5.2) to the target. The message notifies the target that the L_Q was rejected. The target shall then cause a bus free by generating a BUS FREE phase.