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To: T10 Technical Committee
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Subj: Correction to SPI-4 DT Data Group Pad and pCRC Transfers

I have recently been made aware of a hole in the SPI-3 standard that permits a deadlock to occur during the transfer of the pad field and pCRC fields in data group transfers. This hole results from unclear or incomplete requirements being placed on both the initiator and the target during the transition from transferring data to the pad field.

The problematic wording persists in SPI-4. I believe that SPI-4 should be corrected as follows:

In 10.7.3.3.6, change items 6), 10), and 14) of the first list as follows:

- 6) negate the REQ signal without waiting for the previous ACK transition unless the negotiated offset would be exceeded;
- 10) assert the REQ signal without waiting for the previous ACK transition unless the negotiated offset would be exceeded;
- 14) negate the REQ signal without waiting for the previous ACK transition unless the negotiated offset would be exceeded;

NOTE 39 - The above requirements in steps 6), 10), and 14) to not wait for the previous ACK transition were not present in SPI-3. For compatibility with old designs initiators should generate ACK transitions for all received REQ transitions.