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To: T10 Technical Committee
 From: Bill Galloway
 Subj: Link control message correction

Change Table 65 from:

Code	IU Transfers Disabled		IU Transfers Enabled		Message Name	Dir		Clear Attention
	Init	Targ	Init	Targ		In	Out	
04h	O	O	O	O	DISCONNECT	In	Out	Yes
03h	O	O	O	O	RESTORE POINTERS	In		n/a
01h,05h,00h	O	O	O	O	MODIFY DATA POINTERS	In		n/a
01h,05h,01h	O	O	O	O	MODIFY BIDIRECTIONAL DATA POINTERS	In		n/a

To:

Code	IU Transfers Disabled		IU Transfers Enabled		Message Name	Dir		Clear Attention
	Init	Targ	Init	Targ		In	Out	
04h	O	O	NS	NS	DISCONNECT	In		n/a
04h	O	O	O	O	DISCONNECT		Out	Yes
03h	O	O	NS	NS	RESTORE POINTERS	In		n/a
01h,05h,00h	O	O	NS	NS	MODIFY DATA POINTERS	In		n/a
01h,05h,01h	O	O	NS	NS	MODIFY BIDIRECTIONAL DATA POINTERS	In		n/a

Update text:

16.3.14 RESTORE POINTERS

The RESTORE POINTERS message is sent from a SCSI target port to direct the SCSI initiator port to copy the most recently saved command, data, and status pointers for the task to the corresponding active pointers. The command and status pointers shall be restored to the beginning of the present command and status areas. The data pointers shall be restored to either the values at the beginning of the data areas in the absence of a SAVE DATA POINTERS message or to the values at the point at which the last SAVE DATA POINTERS message occurred for that task.

~~When information unit transfers are enabled there are implied restore pointers. For more information on this see 14.1 and 14.3.3.~~

If an information unit transfer agreement is in effect SCSI target ports shall not transmit a RESTORE POINTERS message.

16.3.9 MODIFY DATA POINTER

The MODIFY DATA POINTER message (see table 69) is sent from the SCSI target port to the SCSI initiator port and requests that the signed ARGUMENT be added using two's complement arithmetic to the value of the current data pointer. The data pointer is whichever of the data-out or data-in pointers is being used by the command. The enable modify data pointer (EMDP) bit in the disconnect-reconnect mode page (see 18.1.2) indicates whether or not the SCSI target port is permitted to issue the MODIFY DATA POINTER message. The SCSI target port shall only issue the MODIFY DATA POINTER message during a unidirectional command.

It is recommended that the SCSI target port not attempt to move the data pointer outside the range addressed by the command. SCSI initiator ports may or may not place further restrictions on the acceptable values. Should the SCSI target port send an ARGUMENT value that is not supported by the SCSI initiator port, the SCSI initiator port may reject the value by responding with the MESSAGE REJECT message. In this case, the data pointer is not changed from its value prior to the rejected MODIFY DATA POINTER message.

If an information unit transfer agreement is in effect SCSI target ports shall not transmit a MODIFY DATA POINTER message.

16.3.10 MODIFY BIDIRECTIONAL DATA POINTER

The MODIFY BIDIRECTIONAL DATA POINTER message (see table 70) is sent from the SCSI target port to the SCSI initiator port and requests that the signed DATA-OUT ARGUMENT be added using two's complement arithmetic to the value of the current data-out pointer and signed DATA-IN ARGUMENT be added using two's complement arithmetic to the value of the current data-in pointer. The enable modify data pointer (EMDP) bit in the disconnect-reconnect mode page (see 18.1.2) indicates whether or not the SCSI target port is permitted to issue the MODIFY BIDIRECTIONAL DATA POINTER message. The SCSI target port shall only issue the MODIFY BIDIRECTIONAL DATA POINTER message during a bidirectional command.

It is recommended that the SCSI target port not attempt to move the data-out pointer or the data-in pointer outside the range addressed by the command. SCSI initiator ports may or may not place further restrictions on the acceptable values. Should the SCSI target port send a DATA-OUT ARGUMENT or a DATA-IN ARGUMENT value that is not supported by the SCSI initiator port, the SCSI initiator port may reject the value by responding with the MESSAGE REJECT message. In this case, both the data-out pointer and the data-in pointer are not changed from their values prior to the rejected MODIFY BIDIRECTIONAL DATA POINTER message.

If an information unit transfer agreement is in effect SCSI target ports shall not transmit a MODIFY BIDIRECTIONAL DATA POINTER message.

18.1.2 Disconnect-reconnect mode page

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The enable modify data pointer (EMDP) bit indicates whether or not the SCSI initiator port allows the MODIFY DATA POINTER and MODIFY BIDIRECTIONAL DATA POINTERS messages to be issued by the SCSI target port. If the EMDP bit is a zero **or an information unit transfer agreement is in effect**, the SCSI target port shall not issue the MODIFY DATA POINTER or MODIFY BIDIRECTIONAL DATA POINTERS messages. If the EMDP bit is a one **and an information unit transfer agreement is not in effect**, the SCSI target port is allowed to issue MODIFY DATA POINTER and MODIFY BIDIRECTIONAL DATA POINTERS messages.

If the **MODIFY DATA POINTER and MODIFY BIDIRECTIONAL DATA POINTERS messages are allowed** ~~EMDP bit is a one~~ and the SCSI initiator port responds to a MODIFY DATA POINTER or MODIFY BIDIRECTIONAL DATA POINTERS message with a MESSAGE REJECT, then the SCSI target device shall return a CHECK CONDITION. The sense key shall be set to ABORTED COMMAND and the sense code shall be set to INVALID MESSAGE ERROR.