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To: T10 Technical Committee
 From: John Lohmeyer, LSI Logic Principal Member of T10
 Subj: INQUIRY Data field to report transceiver type

Currently SCSI has no standard way for target devices to report their transceiver types. This proposal would define a byte (56) in the INQUIRY Data to permit reporting of the device's transceiver capabilities and to report the current transceiver mode.

There are two benefits to adopting this proposal: 1) multi-mode devices can report all of their transceiver capabilities and 2) it may assist domain validation in detecting expanders, particularly those that translate between transceiver modes.

I am proposing that byte 56 be defined as protocol-specific. For parallel, this byte would be used as documented below. For serial interfaces, byte 56 would remain reserved.

Bit	7	6	5	4	3	2	1	0
Byte	reserved		LVD_C	HVD_C	SE_C	Tmode		

An LVD_C bit of one indicates that the device is capable of supporting low-voltage differential drivers and receivers. An HVD_C bit of one indicates that the device is capable of supporting high-voltage differential drivers and receivers. An SE_C bit of one indicates that the device is capable of supporting single-ended drivers and receivers. If all of these bits are zero, the device does not support this reporting function.

The Tmode field is defined as follows:

Tmode	Description
000b	Device does not support this field or cannot determine its driver/receiver type
001b	Device is in single-ended mode
010b	Device is in high-voltage differential mode
011b	Device is in low-voltage differential mode
100b-111b	Reserved