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Subject: SES 2, Bay Number Addition

The current SES 2 specification (T10/1559-D Revision 11) requires that text strings be interpreted to determine the enclosure bay to phy/port mapping for SAS enclosures. Since the text information is free form, this is difficult to achieve across multiple implementations. For SAS the bay to phy/port mapping is important because of the potential for associating the bay to a SCSI target id at the OS level to mimic parallel SCSI behavior models.

To simplify the bay to phy/port mapping a bay number should be included in the Additional Element Status descriptor for Device and Array Device elements for SAS (table 29). The bay number should be defined as byte 7 in table 29, replacing the existing reserved byte.

The text to be added is shown in blue.

Table 29 – Additional Element Status descriptor for Device and Array Device elements for SAS

Byte\Bit	7	6	5	4	3	2	1	0
0	INVALID	Reserved			PROTOCOL IDENTIFIER (6h)			
1	ADDITIONAL ELEMENT STATUS DESCRIPTOR LENGTH (n - 1)							
2	Reserved							
3	ELEMENT INDEX							
4	NUMBER OF PHY DESCRIPTORS							
5	DESCRIPTOR TYPE (00B)	Reserved						Reserved
6	Reserved							
7	BAY NUMBER							
	Phy descriptor list							
	...							

The BAY NUMBER field indicates the enclosure device bay associated with this element index.