Date: Mar. 17, 1999

To: T10 Committee (SCSI)

From: George Penokie (IBM), Bob Snively (Sun)

Subject: Very long CDB defination for FCP-2 and SPI-3

Revision 3 of this document corrects the relationship among the task management flags and the presence of a CDB. In FCP, either task management functions or SCSI commands may be transmitted, but not both. The text is corrected to reflect this consistently with FCP.

After discussion with George Penokie, he believes that SPI-3 should have the same properties, since it simplifies the relationship between task management and SCSI command execution. The same correction is provided for SPI-3 and additional areas of SPI-3 where similar changes should be made are noted.

1 FCP-2 additions for long CDBs

Table 1 - FCP_CMND Payload

Bit Byte	7	6	5	4	3	2	1	0
0	(MSB)							
7				LUN				(LSB)
8	COMMAND REFERENCE NUMBER							
9	RESERVED					TASK ATTRIBUTE		
10	TASK MANAGEMENT FLAGS							
11	RESERVED	ADDITIONAL FCP_CDB LENGTH = (N-27)/4					RDDATA	WRDATA
12	(MSB)							
27				FCP_CDB				(LSB)
28	MSB							
n				ADDITIONAL FCP_CDB				LSB
n+1	MSB							
n+2								
n+3				FCP_DL				
n+4								LSB

The ADDITIONAL FCP_CDB LENGTH field contains the length in 4-byte words of the ADDITIONAL FCP_CDB field.

The ADDITIONAL FCP_CDB field contains any CDB bytes beyond those contained within the 16 byte CDB field. The ADDITIONAL FCP_CDB field is not valid and is ignored if any task management flag is set to 1. The contents of the CDB shall be as defined in the SCSI command standards.

2 SPI-3 additions for long CDBs

Table 2 - SPI command information unit

Bit Byte	7	6	5	4	3	2	1	0
0	RESERVED							
1	RESERVED					TASK ATTRIBUTE		
2	TASK MANAGEMENT FLAGS							
3	RESERVED	ADDITIONAL CDB LENGTH = (n-19)/4					RDDATA	WRDATA
4	(MSB)							
19				CDB				(LSB)
20	MSB							
n				ADDITIONAL CDB				LSB
n+1	MSB							
n+2								
n+3				CRC				
n+4								LSB

The ADDITIONAL CDB LENGTH field contains the length in 4-byte words of the ADDITIONAL CDB field.

The ADDITIONAL CDB field contains any CDB bytes beyond those contained within the standard 16 byte CDB field. The ADDITIONAL CDB field is not valid and is ignored if any task management flag is set to 1. The contents of the CDB shall be as defined in the SCSI command standards.

3 Additional changes to SPI-3 to separate task management and CDB delivery

The corresponding description for the CDB field (SPI-3 section 12.2) should be updated as follows:

The CDB field contains the actual CDB to be interpreted by the addressed logical unit. The maximum CDB length is 16 bytes. The CDB field is not valid and is ignored if any task management flag ~~except the clear ACA flag (40h) is selected.~~ is set to 1. The contents of the CDB shall be as defined in the SCSI command standards. Any bytes between the end of a 6 byte CDB, 10 byte CDB, or 12 byte CDB and the end of the CDB field shall be reserved.