

To: INCITS T10 Committee
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Subject: Allow a non-zero first burst length in any SCSI Command IU

1. Revision History

Revision 0: Posted to the T10 web site on 13 August 2004.

2. Overview

In order to implement more transparent bridging, it is necessary to remove the restriction that only a SCSI Command IU specifying a data-in command can have a non-zero value in the First Burst Length field. Section 7.2.1 of ADT Revision 12 places such a restriction on initiators. If this restriction were removed, an initiator bridging from a different protocol would not have to decode the Command Descriptor Block to determine direction. The initiator could assume data-in, prepare buffer space, set First Burst Length accordingly, and send the IU. This allows for simpler bridging and provides for vendor specific operational codes between the target port and the bridged port regardless of the initiator port. The following proposal changes ADT to allow such behavior.

3. Proposal

7.1.2 SCSI Command information unit

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When the SCSI Command IU specifies a data-in command, the FIRST BURST LENGTH field shall contain a value indicating the amount of buffer space prepared in the initiator for the first SCSI Data IU and requesting the transfer from the target of one or more IUs having a total data length not to exceed First Burst Length. This has the effect of a Transfer Ready IU with a BUFFER OFFSET field of zero and a BURST LENGTH field of FIRST BURST LENGTH. ~~When the SCSI Command IU specifies a non-data or data-out command, the FIRST BURST LENGTH field shall be set to zero.~~

Note: An initiator may put a non-zero value in the FIRST BURST LENGTH field of any SCSI Command IU. This allows the initiator to leave the determination of data direction with the target port. The initiator port should ignore the value in the FIRST BURST LENGTH field for non-data or data-out commands.

7.1.3 SCSI Task Management information unit

Table 19 defines the SCSI Task Management IU. The SCSI Task Management IU is sent by an initiator port to request that a task management function be processed by a task manager in a logical unit.