

X3 Secretariat
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Membership of X3:

Comments on the public review of X3.269:199x, the SCSI-3 Fibre Channel protocol (Revision 10).

My current reading of the FCP specification requires all Initiators to support an FCP_XFER_RDY DATA_RO field that specifies out of order data delivery (SAM random buffer access). I believe this is an unacceptable burden for those Initiators that are required to support unlimited scatter/gather operations. Our host software is allowed to specify scatter gather boundaries of a single main storage word. Theoretically, we could be given a single 1000 byte disk read request that could be mapped to a 200 entry scatter/gather list specifying 200 different main storage buffer locations. If we had to support out of order data delivery, it could take an unacceptable amount of processing time to pour through the scatter/gather list and figure out where the starting storage address is for this Data IU as opposed to always processing the scatter/gather list sequentially.

Given this, I would like to request a change to FCP to allow an Initiator to require in order data delivery (SAM sequential buffer access) for all data transfers. SIP has effectively provided this functionality with the Enable Modify Data Pointer (EMDP) bit in the Disconnect/Reconnect mode page. The definition of this bit in the SCSI 3 Primary Commands could be expanded to require the FCP_XFER_RDY DATA_RO field specify in order data delivery or a new bit could be added to the Process Login FCP Service parameter page to require in order data delivery.

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