



Memo to: John Lohmeyer
NCR Corporation
3718 North Rock Road
Wichita, KS 67226

Memo from: Robert Snively

Date: May 3, 1990

Subject: Proposed Structure for SCSI-3 Documentation

Dear Mr. Lohmeyer:

I suggest that the documentation structure for the many projects proposed under the name "SCSI-3" be defined in the following manner. Three separate projects and documents should be created. The first document describes the natural evolution of SCSI-2 to include corrections and extensions to the command set. The second document describes those logical changes to the structure of SCSI that would be required to transmit and manage SCSI commands across multiple paths in packets. The third document describes those physical and low-level logical mappings required to transfer the defined SCSI packets across the Fiber Channel structure presently being specified. A more detailed description of the three proposed documents is given below:

SCSI-3:

This document defines the new P-Cable and L-Cable proposals as optional modifications to section 4 of the SCSI-2. Only the deltas are described.

This document defines any new command sets or commands to be added to sections 7 through 17 of the SCSI-2. Only the deltas are described.

This document defines any new protocol requirements or message definitions as explicit additions to or changes to section 5 of the SCSI-2.

All changes necessary to comply with SCSI-3 are described, but they are all referenced to the necessary SCSI-2 sections for clarity. The remainder of SCSI-2 is included by reference.

The intent is that any SCSI initiator or target meeting the requirements of SCSI-2 will be able to correctly operate with any other target or initiator meeting the requirements of SCSI-3. Allowance is made for the installation of simple adapter cables or cards that will map variations in connector pin assignments associated with the P-Cable and L-Cable to standard SCSI-2 cables.

SCSI-3P:

This document defines the packetized and multi-pathed version of SCSI based on proposals 89-130 and 89-133. Only section 5 and a small portion of section 6 need to be defined in this document, since the remaining sections are taken by reference from SCSI-2. Other minor modifications may be required, and they will be documented as deltas to SCSI-2. SCSI-2 or SCSI-3 command sets should operate across this packetized SCSI implementation

SCSI-3FC:

This document defines an alternate section 4 for SCSI-2 which defines those characteristics necessary to implement SCSI packet transmission on the proposed Fiber Channel. The document includes a complete definition of FC-3 for SCSI and includes by reference the necessary functionality from SCSI-3P and FC-0, FC-1, and FC-2 of the Fiber Channel proposals. Any packetized SCSI protocol should operate across this defined interface.

I hope that these concepts will prove useful in the ongoing work of standardizing SCSI

Sincerely,

Robert N. Snively
Principal Member, X3T9.2
Sun Microsystems