CROSSROADS

Suggested FCP-2 Enhancements
For Tape

List of Proposed Enhancements

- Command Reference Number for command ordering

- FCP_CONFIRM IU for confirmed delivery of FCP_RSP

Command Reference Number

- Enabled by PRLI for target, Mode page for LUN
  - PRLI byte 3 bit 8, page 19 bit TBD to employ Command Reference Numbers

- Embed Command Reference Number in Byte 0 of FCP_CNTL field of FCP_CMND
  - Continuously increasing on an I-T-L nexus; 256 wraps to 0
  - Target does not execute out-of-order commands
    - held until prior CRNs received
  - Initiator not to reuse CRN until delivery confirmed
  - Task Management Functions have CRN 0; 0 means unordered.

- Initiator to abort lost command(s) with ABTS and reissue with correct CRN, new OX_ID;

- PRLI, LUN Reset, & Target Reset reset reference number to 1.

- Delivery confirmation via
  - FCP_XFER_RDY, FCP_DATA, or FCP_RSP; ACK; REC.

FCP_CONFIRM

- Enabled by PRLI
  - Byte 3 bit 7 to enable FCP_CONFIRM

- Requested on each FCP_RSP for which target requires confirmation
  - Byte 2 Bit 4 indicates FCP_CONF required
  - Last Sequence bit not set in F_CTL

- FCP_CONFIRM has IC = 3
  - Last Sequence bit set in F_CTL
  - No payload