1 Overview

A recent change to the description of the REC ELS in the FC-LS standard has created a conflict in wording FCP. The new wording in FC-LS (see below) indicates a condition in which an LS_RJT would be returned that would indicate something other than that the REC ELS is not supported.

From FC-LS rev 1.4:

4.2.42 Read Exchange Concise (REC)

4.2.42.1 Description

This ELS shall be used only for purposes specific to an FC-4. The REC (Read Exchange Concise) Extended Link Service requests an Nx_Port to return Exchange information for the RX_ID and OX_ID originated by the S_ID specified in the Payload of the request Sequence. The S_ID specified in the Payload of the request Sequence may differ from address identifiers of both the source and destination of the REC request itself. The specification of OX_ID and RX_ID shall be provided for the destination Nx_Port to locate the status information requested. A Responder destination Nx_Port shall use the RX_ID and verify that the OX_ID is consistent, unless the RX_ID is unassigned (i.e., RX_ID = FFFFh). If the RX_ID is unassigned in the request, the Responder shall identify the Exchange by means of the S_ID specified in the Payload of the request Sequence and OX_ID. An Originator Nx_Port shall use the OX_ID and verify that the RX_ID is consistent.

If the destination Nx_Port of the REC request determines that the Originator S_ID, OX_ID, or RX_ID are inconsistent, then it shall reply with an LS_RJT Sequence with a reason code of "Unable to perform command request" and a reason code explanation of "Invalid OX_ID-RX_ID combination".

The value of the Parameter field in the frame header of an REC ELS and an LS_ACC in response to an REC ELS shall be specified by the FC-4 that sends the frame. The Relative offset present bit in the frame header of an REC ELS or an LS_ACC in response to an REC ELS shall be set to zero.

From FCP-4 rev 0:

4.6 Retransmission of unsuccessfully transmitted IUs

Error detection and IU retransmission algorithms are defined in clause 12.

The Read Exchange Concise (REC) ELS may be used by the initiator FCP_Port to determine the state of an ongoing Exchange. See 6.5.

Support for the REC ELS by both the initiator FCP_Port and target FCP_Port is indicated by the REC_SUPPORT bit in the PRLI request FCP Service Parameter page and PRLI accept FCP Service Parameter page (see 6.3.4 and 6.3.5).

Support for the REC ELS by both the initiator FCP_Port and target FCP_Port is indicated by the REC_SUPPORT bit in the PRLI request FCP Service Parameter page and PRLI accept FCP Service Parameter page (see 6.3.4 and 6.3.5).

If the target FCP_Port responds with the REC_SUPPORT bit set to one and an error is identified by any of the detection mechanisms defined in clause 12, then the initiator FCP_Port may use the REC ELS to determine the nature of the error.

Target FCP_Ports that do not support the REC_SUPPORT bit indicate they do not support REC by performing a Link Service Reject (LS_RJT) in response to an REC ELS. See 8.3.

2 Proposed Fix

Modify the FCP-4 text to the following:
Target FCP_Ports that do not support the REC_SUPPORT bit indicate they do not support REC by performing a Link Service Reject (LS_RJT) Sequence with a reason code of "Command not supported" in response to an REC ELS. See 8.3.