TO:             T10 Membership, SMC-3 Working Group
FROM:           Rod Wideman, Quantum; rod.wideman@quantum.com
DATE:           January 7, 2009
SUBJECT:        SMC-3 Use of LOGICAL UNIT COMMUNICATION FAILURE (document T10/08-271r1)

Rev0 – Initial draft.
Rev1 – Revised per September 2008 SMC working group discussion (minutes in T10/08-367r1)

**Related Documents**
SMC-3r11

**Introduction**
This document proposes a meaning and use of sense code LOGICAL UNIT COMMUNICATION FAILURE per action item 14Jan08-12.

**Discussion**
The approach taken in this proposal is to build upon the existing description of the media changer in the model clause, and specifically the communication between the SCSI target port and the media changer logical unit. This may be better suited for SPC at some point, as it may not be unique to media changers.

During the September 2008 working group meeting there was a lot of discussion revolving around the use of HARDWARE ERROR - specifically for the case of not being configured yet. The thought was that HARDWARE ERROR should be used only for a true failure case. The group was leaning towards NOT READY with LOGICAL UNIT IS IN PROCESS OF BECOMING READY for the case where the library is trying to configure. The suggestion was made to remove reference to task management functions.

**Proposed Changes to SMC-3**
Proposed new text is shown in blue. Proposed deletions are shown in red strikeout.

*Changes to* **5.1 Introduction**
(For brevity, the entire sub-clause is not replicated here)

If a data transfer device served by the media changer is a SCSI device, then the data transfer device may be addressed on a SCSI service delivery subsystem though the same SCSI target port as the media changer but with a different LUN. The data transfer device may also be addressed through independent SCSI target ports and any LUN on the same or a different service delivery subsystem. If the SCSI target port is not able to communicate with the logical unit that contains the media changer device server and the media changer has completed configuration, then commands addressed to that logical unit shall be rejected with CHECK CONDITION status, with the sense key set to HARDWARE ERROR, and the additional sense code set to LOGICAL UNIT COMMUNICATION FAILURE. If the SCSI target port is not able to communicate with the logical unit that contains the media changer device server and the media changer is still in the process of completing configuration, then commands addressed to that logical unit shall be rejected with CHECK CONDITION status, with the sense key set to NOT READY, and the additional sense code set to LOGICAL UNIT IS IN PROCESS OF BECOMING READY.