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TO: T10 Membership, SMC-3 Working Group
FROM: Rod Wideman, Quantum; rod.wideman@quantum.com
DATE: April 15, 2009
SUBJECT: SMC-3 Use of LOGICAL UNIT COMMUNICATION FAILURE (document
T10/08-271r3)

Deleted: January 7, 2009

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Rev0 – Initial draft.
Rev1 – Revised per September 2008 SMC working group discussion (minutes in T10/08-367r1)
Rev2 – Revised per January 7, 2009 SMC working group discussion.
Rev3 – Revised per April 15, 2009 SMC working group discussion

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

    a)   determines that communication may be able to be established; and
    b)   the logical unit is not offline,

then commands addressed to that logical unit may 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.

If the SCSI target port is not able to communicate with the logical unit that contains the media changer device server and determines that communication is not able to be established, then commands addressed to that logical unit shall be rejected with CHECK CONDITION status, with the sense key set to either HARDWARE ERROR or ABORTED COMMAND, and the additional sense code set to LOGICAL UNIT COMMUNICATION FAILURE.