T10/07-222r2 SMC-3 Additional sense code for incompatible destination element

To: T10 Technical Committee
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Subject: T10/07-222r2 Additional sense code for incompatible destination element

Revision History
Revision 0 (4 May 2007): initial revision
Revision 1 (10 July 2007): incorporated comments from July SMC-3 WG meeting
Revision 2 (6 November 2007): incorporated comments from November SMC-3 WG meeting

Related Documents
SMC3r06 - SCSI Media Changer Commands - 3 revision 6

Overview
Some elements do not support media with specific volume type or volume qualifiers. If the media changer is aware that a specific volume is not compatible with a specific data transfer element, then it is desired that the media changer prevents such move medium operation. This proposal creates two different error codes, one for a move to a destination that does not support the media's volume type, and one for a move to a data transfer element that is not compatible with the media's volume qualifier.

The proposed new ASC/ASCQs for use within SMC-3 are:

ASC	ASCQ	Description
30h	11h	INCOMPATIBLE VOLUME TYPES
30h	12h	INCOMPATIBLE VOLUME QUALIFIERS

Suggested Changes to SMC-3

Add to chapter 5.4 Volume types overview

If an application client requests to move a volume to an element that is incompatible for with this volume type, then the device server shall return terminate the command with CHECK CONDITION status, the sense key shall be set to ILLEGAL REQUEST and the sense data shall be set to INCOMPATIBLE VOLUME TYPES.

If an application client requests to move a volume to a data transfer element that has a compatible volume type and an incompatible that is incompatible for this volume qualifier, then the device server shall return terminate the command with CHECK CONDITION status, the sense key shall be set to ILLEGAL REQUEST and the sense data shall be set to INCOMPATIBLE VOLUME QUALIFIERS.

Add to chapter 6.6 MOVE MEDIUM command

See 5.4 for how the volume type and volume qualifier affect the processing of the MOVE MEDIUM command.

Add to chapter 6.3 EXCHANGE MEDIUM command

See 5.4 for how the volume type and volume qualifier affect the processing of the EXCHANGE MEDIUM command.