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TO: X3T10 Committee (SCSI)

SUBJECT: SSC progress indication using REQUEST SENSE polling

The concept of REQUEST SENSE polling for immediate operations has been extended from its initial use for the SBC FORMAT UNIT command to a general function available to all device classes. This proposal requests the addition of text to selected commands to recommend progress indication reporting be used. Historical use will not disappear, which returns BUSY or other status, but newer devices can provide better information on the state of immediate operations through this procedure.

Two types of progress indication are possible using two sense keys: NOT READY and NO SENSE. NOT READY indicates a state where manual intervention is usually required. NO SENSE indicates that the logical unit is ready, but busy performing a long immediate operation (e.g., a rewind operation).

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Attachment of 2 pages is part of this document

5.1.8 Error reporting

Add to the end of this clause the following paragraphs:

For the following immediate operations where the device server will remain ready, the following device server action permits an initiator to follow each operation to its completion:

Commands and significant functions:

- ERASE (Immed=1b, Long=1b)
- LOCATE (Immed=1b)
- REWIND (Immed=1b)
- SET CAPACITY (Immed=1b)
- VERIFY (Immed=1b)
- WRITE FILEMARKS (Immed=1b)

If the immediate function is used, an initiator not subject to a reservation conflict may receive a deferred error indication on any subsequent command. While the device server is performing the immediate set capacity operation, an initiator may test the progress of the operation by interpreting the progress indication information of the REQUEST SENSE command. While performing an immediate operation for this command, the device server shall report a sense key value of NO SENSE and additional sense information of OPERATION IN PROGRESS. The sense-key specific function for progress indication shall be used by the device server when preparing sense data for the REQUEST SENSE command (see SPC).

For the following immediate operations where the device server will is or will become not ready, the following device server action permits an initiator to follow each operation to its completion:

Commands and significant functions:

- FORMAT MEDIUM (Immed=1b)
- LOAD UNLOAD(Immed=1b, Load=1b, EOT=0b)
- LOAD UNLOAD(Immed=1b, Load=0b, EOT=1b)

If the immediate function is used, an initiator not subject to a reservation conflict may receive a deferred error indication on any subsequent command. While the device server is performing the immediate set capacity operation, an initiator may test the progress of the operation by interpreting the progress indication information of the REQUEST SENSE command. While performing an immediate operation for this command, the

device server shall report a sense key value of NOT READY and additional sense information of LOGICAL UNIT NOT READY, OPERATION IN PROGRESS, NOT READY, FORMAT IN PROGRESS, or LOGICAL UNIT IS IN PROCESS OF BECOMING READY, as appropriate. The sense-key specific function for progress indication shall be used by the device server when preparing sense data for the REQUEST SENSE command (see SPC).

Note: A TEST UNIT READY command has very restricted reporting capability following one of these immediate operations. It may provide information which if acted upon appears to lead to unexpected conditions. For example, progress indication reporting is useful when a medium changer is used to service a sequential peripheral device following an unload immediate operation. A TEST UNIT READY command may respond with a CHECK CONDITION status and a NOT READY sense key, which to some might imply that the unload operation is finished. An EXCHANGE MEDIUM or MOVE MEDIUM command to move a volume away from a device may fail to grab a volume if it is issued while the unload operation is in progress.