To: T10 Technical Committee
From: Kevin Marks - Dell, Inc.
Date: Sep. 11, 2007
Subject: T10/07-381r0: ASC/ASCQ Request for TCG constructs

Revision History

Revision 0 (09/11/07) – Initial proposal

Related Documents

SPC-4 T10/1731-D Revision 11

New text to be added to SPC-4
~~Text to be deleted from SPC-4~~
<<…Editorial text…>

Overview

TCG SWG draft spec contains constructs that allow for locking or restricting access to logical blocks in ranges within the logical unit, in that some LBAs may be readable/writeable and other not until some authentication occurs to unlock the range. TCG would like an ASC/ASCQ to return when a READ/WRITE command is received where one or more LBAs fall into one of these locked/restricted LBA access ranges.

SPC-4 has an ASC/ASCQ of LOGICAL UNIT NOT AUTHORIZED, but this implies a LU level restriction and is not what TCG is requesting for reporting this error condition.

This proposal provides 3 options, with the top level ASC as the preferred option.

Suggested Changes:

Add new row to the Additional Sense Code table in the current ANNEX C.2, Table C.1 of SPC-4.

Table D.1 — ASC and ASCQ assignments

```
                 D - DIRECT ACCESS BLOCK DEVICE (SBC-2)
              .  T - SEQUENTIAL ACCESS DEVICE (SSC-2)
              .     L - PRINTER DEVICE (SSC)
              .        P - PROCESSOR DEVICE (SPC-2)
              .        .  W - WRITE ONCE BLOCK DEVICE (SBC)
              .        .     R- CD/DVD DEVICE (MMC-4)
              .        .        O - OPTICAL MEMORY BLOCK DEVICE (SBC)
              .        .        .  M - MEDIA CHANGER DEVICE (SMC-2)
              .        .        .     A - STORAGE ARRAY DEVICE (SCC-2)
              .        .        .        E - ENCLOSURE SERVICES DEVICE (SES)
              .        .        .        .  B - SIMPLIFIED DIRECT-ACCESS DEVICE (RBC)
              .        .        .        .     K - OPTICAL CARD READER/WRITER DEVICE (OCRW)
              .        .        .        .        V - AUTOMATION/DRIVE INTERFACE (ADC)
              .        .        .        .        .  F- OBJECT-BASED STORAGE (OSD)
              .        .        .        .        .  .
```

ASC	ASCQ	D T L P W R O M A E B K V F	Description
…	….	….	….
			LBA RANGE LOCKED
			<..or..>
xxh	**xxh**	D	**REQUESTED LBA LOCKED**
			<..or..>
			LBA REQUEST NOT AUTHORIZED
…	….	….	….