

SCSI-2 CAM Change Proposal

Title: Removing Assumptions About Target Devices
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References

1. X3T9.2-90-186, *SCSI-2 Common Access Method - Transport and SCSI Interface Module*, rev 2.4, I. Dal Allan (Ed.)
2. X3T9.2, *SCSI-2 Draft Proposed American National Standard*

Discussion

In our review of [1], we have noted two places in which an implementation would have to make a specific assumption about the target device in order to comply with the proposed standard. Since it is desirable to have the proposed specification correctly work with virtually any SCSI target, it is prudent to remove these assumptions (and others as they are found.)

Problem #1:

Section 6.4.3.3, "Error conditions and Queues within the Subsystem", describes the specified behavior of a SIM when it is returning an abnormal status. However, the first sentence in the second paragraph reads:

"Following a Check Condition...the target's LUN queue is also frozen..."

This sentence is attempting to specify the behavior of the TARGET LUN under these circumstances. This is problematic for two reasons: #1, the behavior of a target device on a SCSI bus is governed by [2]; #2, the specified wording is technically incorrect, because it assumes the target device has been programmed for a particular recovery mode. One of two mutually exclusive corrections are offered; the first simply deletes the offending sentence; the second attempts to correct it.

NOTE: Due to the inherent difficulty of trying to keep this sentence synchronized with the SCSI/SCSI-2 standard, we recommend proposal 1A be adopted.

Problem #2:

Table 8-2 lists the proposed support of SCSI Messages. Three of the messages are marked as "Not supported". Although [1] may not want to explicitly support some of the features of [2], [1] does not explicitly restrict the target LUN nor their various possible modes of operation. Consequently, it seems more prudent to mark these features as "Transparently supported by SIM". This means the messages would be made available to the peripheral driver, that could either respond or ignore the messages. In

any event, the behavior of peripheral drivers is outside the scope of this document. With this change, implementors could simply passed unexpected messages to the peripheral drivers, rather than exhibit the unstandardized behavior that "not supported" implies.

Change Proposal #1A

In Clause 6.4.3.3, "Error conditions and Queues within the Subsystem", delete the first sentence of the second paragraph that reads:

"Following a Check Condition...until the allegiance condition is cleared".

OR

Change Proposal #1B

In Clause 6.4.3.3, "Error conditions and Queues within the Subsystem", change the first sentence of the second paragraph that reads:

"Following a Check Condition...until the allegiance condition is cleared".

to read:

"Following a Check Condition or Command Terminated Status, either:

- a) the target's LUN queue is also frozen, and all other tagged commands stay in the queue until the allegiance conditions is cleared.
- b) the target LUN queue will be cleared."

Change Proposal #2

Change the three references of "Not supported" to "Transparently supported by SIM"