

Date: October 31, 2003

To: T10 Committee (SCSI)

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Subject: Invalid LUN on Request Sense Command

1 Overview (Problem 1)

In SPC-3 the description of how to handle an invalid LUN when received for a REQUEST SENSE command is stated in a note as:

NOTE 37 - The sense data appropriate to the selection of an invalid logical unit is defined in SAM-3.

SAM-3 only states in section 5.9.4 Incorrect logical unit selection the following on this topic:

a) The SCSI target device does not support the logical unit (e.g., some SCSI target devices support only one peripheral device).

In response to any other command except REQUEST SENSE and INQUIRY, the SCSI target device shall terminate the command with CHECK CONDITION status. The sense key shall be set to ILLEGAL REQUEST and the additional sense code shall be set to LOGICAL UNIT NOT SUPPORTED;

This is as close to a circular reference I have seen in awhile. To fix this I propose the following be added to the REQUEST SENSE command description in SPC-3.

1.1 SPC-3 Additions

Add the following to section 6.25 REQUEST SENSE command:

In response to a REQUEST SENSE command issued to a logical unit that SCSI target device does not support the SCSI target device shall return GOOD status and parameter data that contains sense data. The sense key shall be set to ILLEGAL REQUEST and the additional sense code shall be set to LOGICAL UNIT NOT SUPPORTED.

1.2 SPC-3 Deletions

Delete the following note in section 6.25 REQUEST SENSE command:

NOTE 37 - The sense data appropriate to the selection of an invalid logical unit is defined in SAM-3.

2 Overview (Problem 2)

In SAS if a REQUEST SENSE command is reporting a Unit Attention in the sense data and the data IU fails to get delivered what happen to that Unit Attention. Should it be cleared or not.

Because the target knows the data delivery failed, I propose that the Unit Attention not be cleared in this case.

2.1 SPC-3 Additions

Add the following to section 6.25 REQUEST SENSE command right below the description of the exception conditions:

If a REQUEST SENSE command is received from an initiator with a pending unit attention condition (i.e., before the device server reports CHECK CONDITION status) and there is an exception condition specific to the REQUEST SENSE command itself, the device server shall not clear the unit attention condition (see SAM-2).