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To: Members of X3T10  
Subject: ACA Recovery Methods Supported by a Logical Unit

Background:

As the result of proposal X3T10/93-065, the committee approved the addition of the ACA bit to the CDB control byte. If this bit is set to one, the SCSI-3 rules apply to an ACA condition caused by the command. If set to zero, the SCSI-2 rules apply.

In a proposed response to written comments on SAM (see X3T10/94-173R0, comment HP 043) support for an ACA bit value of one or zero is defined as a logical unit option. A logical unit must, of course, support at least one value and may support both. Since that is the case, there needs to be some explicit way for an initiator to determine which values are supported. This proposal's intent is to define a way for an initiator to inquire about the ACA recovery methods supported by a logical unit.

Proposal:

The data returned in response to an INQUIRY command shall contain two bits which define the rules for ACA handling that are implemented by the logical unit. The assignment of specific bits is left to the discretion of the SPC technical editor. For the purposes of this discussion, the bits are identified as ACA-2 and ACA-3. They shall have the values and significance specified below. For an SCSI-3 initiator to work with an SCSI-2 target device, the bit values for ACA-2 and ACA-3 are defined so that zero represents normal, SCSI-2 behavior.

ACA-2 = 0, SCSI-2 rules implemented.

ACA-2 = 1, SCSI-2 rules unimplemented.

ACA-3 = 0, SCSI-3 rules unimplemented.

ACA-3 = 1, SCSI-3 rules implemented.

To avoid terminating the INQUIRY command with a CHECK CONDITION status before the initiator has determined which ACA recovery rules are implemented, the logical unit shall observe the following:

1. The logical unit shall not complete an INQUIRY command with CHECK CONDITION status because the ACA bit was set to an unsupported value.
2. As described in SAM clause 6.6.5, if the logical unit receives an INQUIRY command while a unit attention is pending, the logical unit shall perform the INQUIRY command and shall not clear the unit attention condition.