SCSI-2 CAM Change Proposal

Title:Adding a conformance clause to CAMAuthor:Bob Huntsman, Extended SystemsDate:June 27, 1991

References

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

Discussion

It is customary in a standards document to provide a conformance clause. A conformance clause identifies the different degrees to which an implementation can claim conformance. In the case of this specification, it is clear that it is intended that an XPT and a SIM need not come from the same vendor. Indeed, there is some sentiment that in the ideal world there should be exactly one XPT per operating environment, and that XPT would be distributed liberally by the operating system vendor. Consequently, one implementation could claim conformance with respect to a SIM and another vendor claiming conformance with respect to an XPT.

Another important function of a conformance clause is to manage extensions to the standard. Most vendors like to add vendor specific capabilities. An important question that should be answered by the conformance clause is, "What kinds of extensions are allowed and what kind are not?" In this proposal, I promote what I believe to be the intent of the standard - the concept that vendor extensions should be implemented via vendor unique function codes. Other extensions to the specification - like behaving differently than the standard dictates - for a specified function code should be disallowed.

I recommend that this proposal be adopted. Without it, virtually any implementation that does something with a data structure that is something like a CCB will be able to claim conformance. Furthermore, it may be the case that standards processing rules REQUIRE a conformance clause.

Change Proposal

Add the following clause to the specification:

2.1 Conformance

An implementation claiming XPT conformance for a specified operating system and language environment shall:

1. correctly interoperate with any conforming SIM for the specified environment;

- 2. provide all of the services specified in *3.3 XPT Functions*;
- 3. provide the necessary interface specifications that a conforming SIM will be required to interface with the XPT.

An implementation claiming SIM conformance for a specified operating system and language environment shall:

- 1. correctly interoperate with any conforming XPT for the specified environment;
- 2. provide all of the services specified in 3.4 SIM Functions;
- 3. provide the necessary interface specifications that a conforming XPT will required to interface with the SIM.

A conforming implementation may provide additional capabilities by operating on Vendor Unique function codes. A conforming implementation shall execute all other function codes as specified by this standard.

In response to specified function code, a conforming implementation shall only return specified status and return codes.

Claims of conformance to this standard shall state:

- 1) Which of the following types of conformance are claimed:
 - a) XPT conformance
 - b) SIM conformance
- 2) Which operating systems and language environments are supported.
- 3) Which optional functionality is implemented:
 - a) target mode supported
 - b) Execute Engine Request
- 4) The binary format of all CCB fields.