Accredited Standards Committee*

X3, Information Processing Systems

X3T10/95-283r0

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Date: 04
Project:

Ref. Doc.: Reply to: K. Hallam

To: John Lohmeyer, Chair X3T10

From: Ken Hallam, Acting Chair X3T10.1

Subject: Letter Ballot Comment Resolution

Task Group X3T10.1 met on June 28, 1995 and considered the comments received on the following X3T10 letter ballots on new/revised project requests from X3T10.1:

95-019	SSA-PH1 Project Proposal
95-020	SSA-PH2 Project Proposal
95-021	SSA-TL1 Project Proposal
95-022	SSA-TL2 Project Proposal
95-023	SSA-S2P Project Proposal
95-024	SSA-S3P Project Proposal

The only comments received were from Gene Milligan. On behalf of TG X3T10.1, I want to thank Mr. Milligan for the time he spent in reviewing the letter ballots and for his cogent comments. As a result of those comments, we were able to improve and clarify all 6 project requests.

Responses to all comments were adopted by a unanimous vote, (10:0:0:13) of TG X3T10.1 at its June 28, 1995 meeting. The approved response for most comments resulted in editorial changes to the appropriate project request document. There were no comments that resulted in any substantive changes to any of the project request documents under ballot. All letter ballot comments and the approved responses are presented below for consideration by TC X3T10. Please take the appropriate action to forward these project requests to committee X3.

*Operating under the procedures of The American National Standards Institute.

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Comments received for ballot X3T10/95-019 (SSA-PH1 Project Proposal):

Seagate Technology (Gene Milligan):

The following comments accompany Gene Milligan's YES vote on the proposed new project for the SSA Physical layer 1:

- 1) Line fault detector for links is not a clear goal.
- *R1)* Agreed. This item removed from goals statement.
- 2) It seems that the physical layer does not have anything to do with preserving the capability to transport SCSI commands. I think section 2.4 should be changed by changing while preserving the capability to transport SCSI command and status information to which can transport SCSI command and status information.
- R2) Agreed.
- 3) I see no reason that SCSI-2 is a closely related standard.
- R3) Agreed. Removed reference to SCSI-2.
- 4) Much of the SSA project proposals share common text, see my comments on letter ballot X3T10/95-024r0 for generic comments on the proposal.

Comments received for ballot X3T10/95-020 (SSA-PH2 Project Proposal):

Seagate Technology (Gene Milligan):

The following comments accompany Gene Milligans YES vote on the proposed new project for the SSA Physical layer 2:

- 1) It seems that the physical layer does not have anything to do with preserving the capability to transport SCSI commands. I think section 2.4 should be changed by deleting while preserving the capability to transport SCSI command and status information.
- R1) Agreed.
- 2) The title of 3.5 is peculiar. Everyone is competent in subject matter but that is not pertinent. The important aspect is the subject matter rather than subject matter.
- R2) Disagree. The title of this project request section follows the X3 guidelines in SD-3.
- 3) SSA-PH2 from a standards point is not an initial implementation point. In section 4.1 change provide an initial implementation point to be.
- R3) Agreed. Reword section.
- 4) I see no reason that SCSI-2 is a closely related standard.
- R4) Agreed. Removed SCSI-2 references.
- 5) Much of the SSA project proposals share common text, see my comments on letter ballot X3T10/95-024r0 for generic comments on the proposal.

Comments received for ballot X3T10/95-021 (SSA-TL1 Project Proposal):

Seagate Technology (Gene Milligan):

The following comments accompany Gene Milligans YES vote on the proposed new project for the SSA Transport layer 1:

- 1) It is not clear due to the cover page and the title being different which layer this proposal is addressed to. The lack of clarity in the scopes of these project proposals does not help this confusion.
- R1) This was a typo. Corrected.
- 2) It is not clear at all what a web topology is and therefore it is not clear why their support is a need. Perhaps Web Topology should be addressed by section 3.2.
- R2) Agreed. Added a definition of Web to sec. 3.2.
- 3) Section 3.2 should also define the special term minize used in the goals.
- R3) This was a typo. Corrected.
- 4) It seems that the transport layer does not have anything to do with preserving the capability to transport SCSI commands since this is an initial set of SSA standards. I think section 2.4 should be changed from while preserving the capability to transport SCSI command and status information to which transports existing and anticipated SCSI command and status information.

R4) Agreed.

- 5) It is not clear whether this proposal is expected to be a new project or that it should have been submitted as a revision to Project 0989 D. Is it expected that OMC will study the proposal closely enough that they assign it Project 0989 D upon approval or that after some new number is assigned X3T10 will process a request to withdraw Project 0989 D?
- R5) This project request was a change to the existing 989D project, not a new request.
- 6) The contents and title of section 5.3 seem to have been scrambled.
- *R6)* Agreed. 'Cut and paste' error was corrected.
- 7) Much of the SSA project proposals share common text, see my comments on letter ballot X3T10/95-024r0 for generic comments on the proposal.

Comments received for ballot X3T10/95-022 (SSA-TL2 Project Proposal):

Seagate Technology (Gene Milligan):

The following comments accompany Gene Milligans YES vote on the proposed new project for a SSA Transport layer 2:

- 1) Web topology is not an understood term and is not clear as to why that is a need. If it is a need web topology should be defined in section 3.2.
- R1) Agreed. Added definition of Web to section 3.2.
- 2) SCSI-2 is not a closely related standard.
- R2) Agreed. Removed SCSI-2 references.
- 3) Much of the SSA project proposals share common text, see my comments on letter ballot X3T10/95-024r0 for generic comments on the proposal.

Comments received for ballot X3T10/95-023 (SSA-S2P Project Proposal):

Seagate Technology (Gene Milligan):

The following comments accompany Gene Milligan's NO vote on the proposed new project for mapping SCSI-2 command sets onto the SSA transport layer and physical interface:

- 1) If this project proposal is approved it will create an unnecessary standard which is redundant to the new project for mapping SCSI-3 command sets onto the SSA transport layer and physical interface. SCSI-2 command sets are a compatible subset of the SCSI-3 command sets. Therefore the SCSI-3 mapping is by definition compatible with SCSI-2.
- R1) Disagree. This project is needed to provide the industry with a common SCSI-2 implementation of SSA. The project will encompass existing practice in operation of SCSI-2 over SSA and will be completed this year. The SCSI-3 series of standards are still evolving and are not considered stable yet while SCSI-2 is a stable protocol. A separate protocol is felt to be needed for SCSI-2 and SCSI-3 because there will be many functional differences between them. Thus, TG X3T10.1 feels both the S2P and the S3P projects are necessary.
- 2) Having two simultaneous standards to accomplish the same thing is fraught with danger. Unless the documents are identical they will very likely result in incompatible implementations due to using a different source document for the implementation.
- R2) Disagree. The 2 projects, (S2P and S3P) do not attempt to accomplish the same thing. The differences in SCSI-3 imposed by SAM compliance will be enough to cause at least some potential incompatibilities between SCSI-2 implementations and SCSI-3 implementations. Given the existing project proposals in TC X3T10, the SCSI-3 series of standards when approved, will not replace SCSI-2, (X3.131).
- 3) Much of the SSA project proposals share common text, see my comments on letter ballot X3T10/95-024r0 for generic comments on the proposal.

Comments received for ballot X3T10/95-024 (SSA-S3P Project Proposal):

Seagate Technology (Gene Milligan):

The following comments accompany Gene Milligans YES vote on the proposed new project for mapping SCSI-3 command sets onto the SSA transport layer and physical interface:

- 1) It is not clear, and probably wrong that configurability results from a 10 meter length of cable. I assume the configurability would not be reduced by a 11 meter length.
- R1) Agreed. Reworded section.
- 2) There is no need for an implementation of SCSI-3 features on a serial interface. X3T10 has already forwarded two such protocols for serial interfaces (FC and 1394). The last sentence in 2.1 should change a serial interface to the SSA serial interface.
- R2) Agreed.
- 3) It seems SAM should be just a related standard. It is a requirement not a goal and mapping does not apply.
- R3) Agreed.
- 4) Just as purely editorial comments, the goals should be stated in the same form. In (b), which should be (a) replace define the with support for and delete provide in the present (d) and (e).

R4) Agreed.

- 5) Related to the untitled figure, these comments will be made without accounting for the fact that the SSA-S2P project should not be authorized. The figure is either unclear or the projects are not appropriate. The diagonal lines imply that the SSA-PH2 will support only SSA-TL2 while SSA-PH1 will support both transport layers and that SSA-S3P can be used only with SSA-TL2 while SSA-S2P can be used on either transport layer. If such restrictions apply the restrictions should be the opposite as those shown. I suspect the depiction represents the restrictions of someones implementation rather than how the standards should be structured.
- R5) Disagree. The figure is intended to show that SSA-TL2 will work with both SSA-PH1 and SSA-PH2. The figure is felt to fairly represent the consensus of X3T10.1 regarding interaction of the 6 projects.
- 6) Having read the transport and physical layer project proposals I was unable to form an opinion on what was covered by the scope of the physical layer and what was covered by the scope of the transport layer. However the patent statements gave a slight clue.
- R6) No change was requested by this comment, but the Scope section of all project requests has been reworded for clarity.
- 7) Referring to item (1) in section 3.4 it is hard to swallow that SSA-UIG is an end-user organization. As far as I know it, or its successor is a consortia of manufacturers without membership of organizations like Mutual of Omaha or the South Side Computer Club.
- R7) Agreed. Changed SSA-UIG reference to that of an Industry Group.

- 8) It would be more useful, I think, to give an estimate of the minimum useful life rather than the maximum since the maximum is satisfied by no useful life.
- *R8) Disagree. The project requests are following guidelines set forth in SD-3.*
- 9) In terms of a SCSI-3 commands mapping protocol SCSI-2 does not have relevance. However I would not object to its inclusion if the SCSI-3 command mapping protocol project is rejected and a statement is added to the SCSI-3 command mapping protocol project proposal that it will provide downward compatibility (downward in my mind perhaps upward in your mind) with SCSI-2.
- R9) Agreed. Removed SCSI-2 references where appropriate.
- 10) The SSA project proposals do not have the document numbers referenced in the letter ballots.
- R10) Agreed. Corrected.