Project Proposal
For a New
X3 Technical Report

Serial Storage Architecture
SCSI-2 Protocol

(SSA-SCSI2)

November 9, 1994

1. IDENTIFICATION OF PROPOSED PROJECT

1.1 TITLE: Serial Storage Architecture SCSI-2 Protocol (SSA-SCSI2)

1.2 PROPOSER: X3T10.1

1.3 DATE SUBMITTED: August 1, 1994 X3T10.1 forwarding date.

1.4 PROJECT TYPE: DT - Development of technical report within X3 TC.

2. JUSTIFICATION OF PROPOSED TECHNICAL REPORT

2.1 NEEDS:

Work on the Serial Storage Architecture SSA-PH (Transport Layer) and the Serial Storage Architecture SSA-SSP (SCSI-3 Protocol) is progressing at a quick pace. First implementations are currently under development by a number of companies. This has generated a problem as the SCSI-3 command sets are not yet available.

SSA-SCSI2 Technical Report is needed to document a method of initial implementations using the SCSI-2 command set. The SSA-SCSI2 development is needed to reduce confusion in the industry and the risk of incompatibility and mismatched system integration that can occur. SSA-SSP is anticipated to replace SSA-SCSI2 as the market migrates from SCSI-2 to SCSI-3, resulting in a shorter anticipated life than for many standards. For this reason and the potentially quicker approval process a TR is preferred over a dpANS.

2.2 RECOMMENDED SCOPE OF TECHNICAL REPORT:

The proposed SSA-SCSI2 TR will maintain compatibility with SSA-PH and the commands defined in X3.131-1994.

The goals of SSA-SCSI2 are:

   a)   provide the basis of utilization of SCSI-2 Commands on SSA-PH.
   b)   improve compatibility through documentation of implementation requirements and options.
   c)   minimize the impact in converting firmware between SCSI-2 and SSA-SCSI2.
   d)   maximize compatibility with SSA-SSP where possible.

2.3 EXISTING PRACTICE IN AREA OF PROPOSED TECHNICAL REPORT:

None. The generation of SSA-SCSI2 assumes the concurrent development of SSA-PH. The proposed project involves creating and documenting initial implementations over SSA-PH.

2.4 EXPECTED STABILITY OF PROPOSED TECHNICAL REPORT WITH RESPECT TO CURRENT AND POTENTIAL TECHNOLOGICAL ADVANCE:

The nature of the proposed project is to insure that the initial SSA implementations are compatible.

3.   DESCRIPTION OF PROPOSED PROJECT:

3.1   TYPE OF DOCUMENT: Technical Report.

3.2   DEFINITION OF CONCEPTS AND SPECIAL TERMS: None.

3.3   EXPECTED RELATIONSHIP WITH APPROVED X3 REFERENCE MODELS:
The SSA-SCSI2 technical report is for use with SSA-PH in initial generation systems.

3.4   RECOMMENDED PROGRAM OF WORK:
The following program of work is planned for the SSA-SCSI2:

(1)   Solicit continuing participation by the present SSA-PH and SSA-SSP participants through X3T10.1 procedures. Invite comments by end-user organizations and invite proposals from organizations that may have a contribution to a SSA-SCSI2 technical report.
(2)   Establish functional requirements for SSA-SCSI2.
(3)   Prepare a draft technical report based on proposals submitted and other information gathered during the initial investigation.
(4)   Consider the results of SSA-SCSI2 testing as may be available to the committee through the voluntary efforts of the various participants in X3T10.1.
(5)   Submit the draft proposed technical report to X3 for further processing.

3.5   RESOURCES - INDIVIDUALS AND ORGANIZATIONS COMPETENT IN THE SUBJECT MATTER:

The current membership of X3T10.1 includes representatives from all parts of the computer industry from semiconductor chip manufacturers to large mainframe system manufacturers as well as Government agencies. The members of X3T10.1 have expressed their desire to participate and cooperate in the development of this proposed technical report.

There are sufficient resources to complete the development of this technical report without delaying work on other standards.

3.6   RECOMMENDED X3 DEVELOPMENT TECHNICAL COMMITTEE:

It is recommended that the development work be done in Technical Committee X3T10 which is responsible for developing the draft SSA-PH and SSA-SSP standards.

3.7   ANTICIPATED FREQUENCY AND DURATION OF MEETINGS:

Task Group X3T10.1 meets for one day bi-monthly. Specific task ad hoc groups are called as may be required for one to three days between the regular meetings but their results are not binding.

3.8   TARGET DATE FOR TECHNICAL REPORT TO X3 (MILESTONE 10): June 1996

3.9   ESTIMATED USEFUL LIFE OF STANDARD:

Not applicable

4. IMPLEMENTATION IMPACTS

4.1 IMPACT ON EXISTING USER PRACTICES AND INVESTMENTS:

The proposed SSA-SCSI2 technical report will provide an initial implementation point complementary to the existing practices and investments. It is likely that any isolated negative impacts would occur in any case through non-standard evolution or revolution.

4.2 IMPACT ON SUPPLIER PRODUCTS AND SUPPORT:

The proposed SSA-SCSI2 technical report will provide an initial implementation point complementary to the existing practices and investments. It is likely that any isolated negative impacts would occur in any case through non-standard evolution or revolution.

4.3 TECHNIQUES AND COSTS FOR COMPLIANCE VERIFICATION:

The committee will consider the results of SSA-SCSI2 testing as may be available to the committee through the voluntary efforts of the various participants in X3T10.1. With this method all costs are borne by the organizations of the various participants and have for the most part been mainly an adjunct of their normal development costs.

4.4 LEGAL CONSIDERATIONS:

Not applicable

5. CLOSELY RELATED STANDARDS ACTIVITIES

5.1 EXISTING STANDARDS:

X3.131-1994 -- SCSI-2

5.2 X3 STANDARDS DEVELOPMENT PROJECTS:

CAM-2 -- Project 990D
SCSI3 MMC -- Project 1048D
SCSI3 SBC -- Project 996D
SCSI3 SCC -- Project 1047D
SCSI3 SGC -- Project 998D
SCSI3 SMC -- Project 999D
SCSI3 SPC -- Project 995D
SCSI3 SSC -- Project 997D
SSA-SSP -- Project 1051-D
SSA-PH -- Project 989-D
SCSI3 FCP -- Project 993D
SCSI3 SAM -- Project 994D

5.3 X3 STUDY GROUPS: None.

5.4 OTHER RELATED DOMESTIC STANDARDS EFFORTS: None.

5.5 ISO/IEC JTC 1 STANDARDS DEVELOPMENT PROJECTS:

DIS 9316-1 (X3.131, SCSI-2)

5.6 OTHER RELATED INTERNATIONAL STANDARDS DEVELOPMENT PROJECTS: None.

5.7 RECOMMENDATIONS FOR COORDINATING LIAISON: None.

5.8 RECOMMENDATIONS FOR CLOSE LIAISON: None.