

## 1. Identification of Proposed Project

1.1 Title: SCSI-3 Serial Bus Protocol (SBP)

1.2 Proposer

This project is proposed by the X3T9 Technical Committee. For additional information, please contact John B. Lohmeyer, X3T9.2 Chairman, at NCR Corporation, 1635 Aeroplaza Dr, Colorado Springs, CO 80916, (Phone: 719-596-5795 FAX: 719-597-8225) or Dal Allan, X3T9.2 Vice-Chairman at ENDL, 14426 Black Walnut Ct, Saratoga, CA 95070 (Phone: 408-867-6630 Fax: 408-867-2115).

1.3 Date Submitted: June 1992

1.4 Project Type: Development

## 2. Justification of Proposed Standard or Technical Report

### 2.1 Needs

Where the Small Computer System Interface (SCSI) has been used on desktop computers it has been found that inexperienced users of such systems desire a simpler, easy to configure, physical interface and a suitable vehicle is the High Performance Serial Bus being defined by IEEE P1394.

### 2.2 Recommended Scope of Standard or Technical Report

The Serial Bus Protocol is intended to provide a protocol that can take advantage of the capabilities provided by the High Performance Serial Bus to support an efficient transport service for SCSI products.

Functions which will be considered for incorporation include:

- a) Alignment of SCSI protocol functions with their equivalent functions in the High Performance Serial Bus.
- b) Provide a mapping for SCSI I/O Processes so that they can be transported over the High Performance Serial Bus.
- c) Other capabilities which fit within the scope of the SCSI-3 Serial Bus Protocol that may be proposed during the development phase by the participants in the project.

This proposed standard will conform to the requirements of the SCSI-3 Architecture Model proposed standard. While Serial Bus Protocol defines a specific transport protocol for the High Performance Serial Bus, the command, data, and status information content specified by the SCSI-3 Architecture Model is transport-protocol independent. Additional optional functions may be defined by Serial Bus Protocol (e.g., isochronous services) which are not required by the SCSI-3 Architecture Model, but such functions shall not be required to comply with the protocol.

### 2.3 Existing Practice in Area of Proposed Standard or Technical Report

Other X3T9 projects exist to define how interfaces are to be transported over Fiber Channel e.g. FC-SB (Single Byte Command Code Set).

### 2.4 Expected Stability of Proposed Standard or Technical Report with Respect to Current and

### Potential Technological Advances

The nature of the proposed project is to integrate Serial Bus Protocol in a manner which expands the alternatives available to host system manufacturers and peripheral suppliers.

#### 3. Description of Proposed Project

3.1 Type of Document (Standard or Technical Report): Standard

3.2 Definition of Concepts and Special Terms (if any): none

3.3 Expected Relationship with Approved X3 Reference Models (e.g., DBMS, OSI)

The Serial Bus Protocol is for use in closed systems.

#### 3.4 Recommended Program of Work

The following program of work is planned for the Serial Bus Protocol standard:

- Solicit participation from present and future SCSI participants through X3T9.2 procedures and through press releases. Invite comments by end-user organizations and invite proposals from organizations that may have a contribution to a viable Serial Bus Protocol standard.
- Establish functional requirements for Serial Bus Protocol functional additions.
- Prepare a draft standard based on proposals submitted and other information gathered during the initial investigation.
- Consider the results of Serial Bus Protocol testing as may be available to the committee through the voluntary efforts of the various participants in X3T9 and its assigned task group.
- Submit the draft proposed standard to X3 for further processing.

#### 3.5 Resources - Individuals and Organizations Competent in Subject Matter

The current membership of X3T9.2 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 X3T9.2 have expressed their desire to participate and cooperate in the development of this proposed standard.

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

#### 3.6 Recommended X3 Development Technical Committees (Existing or New)

It is recommended that the development work be done in task group X3T9.2.

#### 3.7 Anticipated Frequency and Duration of Meetings

Task group X3T9.2 meets for two days 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 dpANS to X3 (Milestone 10): February 1994

3.9 Estimated Useful Life of Standard or Technical Report

It is anticipated that this standard will have a life of over 10 years.

4. Implementation Impacts

4.1 Impact on Existing User Practices and Investments

The proposed Serial Bus Protocol standard will provide an upward growth path which complements 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 Serial Bus Protocol standard will provide an upward growth path which complements 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 Serial Bus Protocol testing as may be available to the committee through the voluntary efforts of the various participants in X3T9 and its assigned task group. 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

No new legal considerations are expected that are not already in accordance with accepted X3 patent policies.

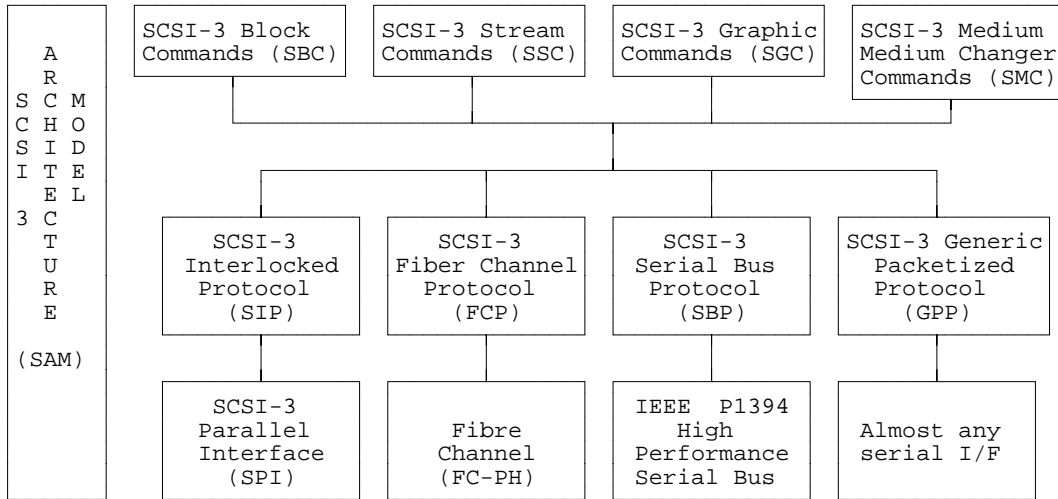
5. Closely Related Standards Activities

This standard extends and enhances the SCSI-2 (X3.131-199x) and is a member of the SCSI-3 family of standards (see 5.2, below).

5.1 Existing Standards: none

5.2 X3 Standards Development Projects

The SCSI-3 Serial Bus Protocol is one part of the overall SCSI-3 family of standards:



The Directly Addressable Device Interface (DADI) defines a related protocol.

5.3 X3/SPARC Study Groups: none

5.4 Other Related Domestic Standards Efforts: none

5.5 ISO Standards Development Projects

It is anticipated that this standard will be proposed to JTC1/SC25/WG4.

5.6 Other Related International Standards Development Projects: none

5.7 Recommendations for Coordinating Liaison: none

5.8 Recommendations for Close Liaison: none

Establish liaison with the IEEE Microprocessor Committee responsible for High Performance Serial Bus.