X3T10/95-228r1

Project Proposal
For a New
X3 Standard

SCSI Fibre Channel Protocol - 2

(FCP-2)

July 13, 1995

1. IDENTIFICATION OF PROPOSED PROJECT

1.1 TITLE: SCSI Fibre Channel Protocol - 2 (FCP-2).

1.2 PROPOSER: X3T10.

1.3 DATE SUBMITTED: July 13, 1995

1.4 PROJECT TYPE: D - Development of a standard within an X3 TC.

2. JUSTIFICATION OF PROPOSED STANDARD

2.1 NEEDS:

The SCSI Fibre Channel Protocol (FCP) standard is in the approval process. There is a continuing need to evolve and enhance the protocol. The proposed FCP-2 standard would revise FCP to add new functions.

2.2 RECOMMENDED SCOPE OF STANDARD:

The FCP-2 standard will define a mapping layer for the execution of SCSI operations as defined by the SCSI-3 Architectural Model, ANSI X3.270-199X on the Fibre Channel - Physical and Signaling Interface as defined by ANSI X3.230-1994. It will maintain a high degree of compatibility with the present FCP standard.

Candidates for inclusion in the FCP-2 draft standard are:

a) Defining an optional response confirmation protocol for certain Fibre Channel Class 3 environments.
b) Other capabilities which may fit within the general scope of the FCP-2 standard that may be proposed during the development phase by the participants in the project.

2.3 EXISTING PRACTICE IN AREA OF PROPOSED STANDARD:

The proposed project involves evolutionary expansion of the present FCP standard.

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

The nature of the proposed project is to insure that FCP has an upward, highly compatible growth path. This will insure that current investments in FCP are provided with more stability in the face of technological developments..

3. DESCRIPTION OF PROPOSED PROJECT:

3.1 TYPE OF DOCUMENT: Standard**.**

3.2 DEFINITION OF CONCEPTS AND SPECIAL TERMS: None**.**

3.3 EXPECTED RELATIONSHIP WITH APPROVED X3 REFERENCE MODELS:

The FCP-2 standard is intended for use in closed systems.

3.4 RECOMMENDED PROGRAM OF WORK:

The following program of work is planned for the FCP-2:

(1) Solicit continuing participation by the current membership of X3T10 through X3 procedures. Invite comments and proposals from organizations that may have a contribution to the FCP-2 standard.

(2) Prepare a draft proposed standard based on proposals submitted and other information gathered during the initial investigation.
(3) Consider the experience with implementations of the present FCP standard as may be available to the committee through the voluntary efforts of the X3T10 membership.
(4) Submit the draft proposed standard to X3 for further processing.

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

The current membership of X3T10 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 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 projects.

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 family of SCSI standards.

3.7 ANTICIPATED FREQUENCY AND DURATION OF MEETINGS:

Technical Committee X3T10 meets bimonthly. 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: November 1997.

3.9 ESTIMATED USEFUL LIFE OF STANDARD:

It is anticipated that this standard will have a life of 5 years.

4. IMPLEMENTATION IMPACTS

4.1 IMPACT ON EXISTING USER PRACTICES AND INVESTMENTS:

The proposed FCP-2 standard will provide an evolutionary growth path 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 FCP-2 standard will provide an evolutionary growth path 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 FCP-2 testing as may be available to the committee through the voluntary efforts of the various participants in X3T10. 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:

There are no known legal considerations. A Call for Patents will be made.

5. CLOSELY RELATED STANDARDS ACTIVITIES

5.1 EXISTING STANDARDS:

	Title
X3.230-1994	Fibre Channel Physical and Signaling Interface (FC-PH)

5.2 X3 STANDARDS DEVELOPMENT PROJECTS:

BSR Number	Title	Project
X3.269-199x	SCSI-3 Fibre Channel Protocol	
X3.270-199x	SCSI-3 Architecture Model	
X3.272-199x	Fibre Channel Arbitrated Loop	
	SCSI-3 Primary Commands	X3T10/0995-D
	Fibre Channel Physical and Signaling Interface - 2	X3T11/0901-D

5.3 X3 STUDY GROUPS: None.

5.4 OTHER RELATED DOMESTIC STANDARDS EFFORTS: None.

5.5 ISO/IEC JTC 1 STANDARDS DEVELOPMENT PROJECTS: FCP, FC-AL, FC-PH, SAM and SPC are being processed as a NWI at JTC1/SC25/WG4. It is anticipated that FCP-2 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: X3T11.