

T10/06-032r1

**Project Proposal
for a new
INCITS Standard**

**SCSI Fibre Channel Protocol - 4
(FCP-4)**

January 10, 2006

1. Source of Proposed Project

1.1 Title: SCSI Fibre Channel Protocol - 4.

1.2 Date Submitted: January 10, 2006.

1.3 Proposing Group: T10.

2. Process Description for the Proposed Project

2.1 Project Type: D - Development.

2.2 Type of Document: Standard.

2.3 Definitions of Concepts and Special Terms: none.

2.4 Expected Relationship with Approved Reference Models, Frameworks, Architectures, etc.

None, it is expected that this standard will be used in closed systems.

2.5 Recommended INCITS Development Technical Committee: T10.

2.6 Anticipated Frequency and Duration of Meetings

Technical Committee T10 meets on a regularly scheduled basis (see <http://www.t10.org> for the current meeting schedule). Specific task ad hoc groups are called as required between the regular meetings but their results are not binding.

2.7 Target Date for Initial Public Review (Milestone 4): September 2007.

2.8 Estimated Useful Life of Standard or Technical Report: 5 Years.

3. Business Case for Developing the Proposed Standard or Technical Report

3.1 Description

The FCP-4 standard will define a mapping layer for the execution of SCSI operations as defined by the SCSI Architecture Model - 4 (SAM-4). This mapping layer will function on the Fibre Channel infrastructure as defined in FC-PI, FC-FS, and related Fibre Channel standards.

The following items should be considered for inclusion in FCP-4:

- 1) Multiple path for increased bandwidth and error recovery;
- 2) security issues with respect to FC-SP and other current security activities;
- 3) any additional items deemed appropriate by the committee.

3.2 Existing Practice and the Need for a Standard

The SCSI Fibre Channel Protocol - 3 (FCP-3) standard is in the process of approval at INCITS and there is a continuing need to evolve and enhance the protocol. The proposed FCP-4 standard will update and revise FCP-3 to add additional functionality.

3.3 Implementation Impacts of the Proposed Standard

3.3.1 Development Costs

Members of T10 will provide the necessary resources. The T10 members will host the required meetings for development, provide for the necessary lab experiments, and provide the Technical Editor for the project.

3.3.2 Impact on Existing or Potential Markets

This proposed project is intended to preserve as much of the existing Fibre Channel software and hardware investment as practical.

3.3.3 Costs and Methods for Conformity Assessment

The committee will consider the results of testing as may be available to the committee through the voluntary efforts of the various participants in T10. 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.

3.3.4 Return on Investment

ROI information is considered proprietary data by the member organizations, but members have stated that the ROI is expected to be large.

3.4 Legal Considerations

3.4.1 Patent Assertions

Calls will be made to identify assertions of patent rights in accordance with the relevant INCITS, ANSI, and ISO/IEC policies and procedures.

3.4.2 Dissemination of the Standard or Technical Report

Drafts of this document will be disseminated electronically. Dissemination of the final standard will be restricted, as the document becomes property of INCITS, ANSI, and/or ISO/IEC.

4. Related Standards Activities

4.1 Existing Standards:

ID Number	Title
INCITS 402:2005	SCSI Architecture Model - 3 (SAM-3)
INCITS 408:2005	SCSI Primary Commands - 3 (SPC-3)
INCITS 350:2003	Fibre Channel Protocol for SCSI - 2 (FCP-2)
INCITS 352:2002	Fibre Channel Physical Interfaces (FC-PI)
INCITS 373:2003	Fibre Channel Framing and Signaling Interface (FC-FS)

4.2 Related Standards Activity

ID Number	Title
T10/1729-D	SCSI Primary Commands - 4 (SPC-4)
T10/1683-D	SCSI Architecture Model - 4 (SAM-4)
T10/1560-D	Fibre Channel Protocol for SCSI - 3 (FCP-3)
T11/1619-D	Fibre Channel Framing and Signaling Interface - 2 (FC-FS-2)
T11/1625-D	Fibre Channel - Physical Interface - 3 (FC-PI-3)
T11/1620-D	Fibre Channel - Link Services (FC-LS)
T11/1570-D	Fibre Channel - Security Protocol (FC-SP)

4.3 Corresponding ISO Projects

ID Number	Title
ISO/IEC 14776-411	SCSI Architecture Model - 3 (SAM-3)
ISO/IEC 14776-312	SCSI Primary Commands - 3 (SPC-3)
ISO/IEC 14776-222	Fibre Channel Protocol for SCSI - 2 (FCP-2)
ISO/IEC 14165-251	Fibre Channel Framing and Signaling Interface (FC-FS)

4.4 Recommendations for Close Liaison

Technical Committee T11.

5 Units of Measurement used in the Standard

The International System of Units (SI) units will be used.