Project Proposal for a New INCITS Technical Report
FIBRE CHANNEL Device Attach Second Generation
(FC-DA-2)
T11/07-187v1

1. Source of the Proposed Project

1.1 Title
Fibre Channel Device Attach - 2 (FC-DA-2).

1.2 Date Submitted
June 7, 2007.

1.3 Proposer(s)
INCITS TC T11, with a current membership of 46.

2. Process Description for the Proposed Project

2.1 Project Type (Development or Revision)
D – Development done within INCITS TC.

2.2 Type of Document
Technical Report.

2.3 Definitions of Concepts and Special Terms
None.

2.4 Expected Relationship with Approved Reference Models, Frameworks, Architectures, etc.
All Fibre Channel standards are intended for use in closed systems.

2.5 Recommended INCITS Development Technical Committee (Existing or New)
It is recommended that this project be assigned to TC T11, in order that the project is coordinated with work on other Fibre Channel standards.

2.6 Anticipated Frequency and Duration of Meetings
This project will make use of the regularly scheduled bimonthly T11 plenary meetings. Informal Working Groups will be organized on an ad-hoc basis to discuss specific subjects where appropriate.

2.7 Target Date for Initial Public Review (Milestone 4)
June 2008.

2.8 Estimated Useful Life of Standard or Technical Report
It is anticipated that this Technical Report will have a useful life of over 10 years.

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

3.1 Description
This project proposal recommends the development of a set of additional and enhanced definitions for Fibre Channel end devices. Included within this scope are items such as:

a) Security;
b) Requirements for interoperable end devices;

c) Extension of the requirements for management of end devices;
d) Clarification of existing ambiguities; and
e) Any additional issues deemed important in creating interoperable end devices.

3.2 Existing Practice and the Need for a Technical Report

Development of the first generation Fibre Channel Device Attach Technical Report addressed the need for a single Technical Report for interoperable end devices based on replaced standards. This Technical Report focused on the following aspects:

a) Loop behaviors (Public and Private);
b) Initialization;
c) Login/Logout;
d) Link Services;
e) Well-known address usage;
f) Name Server query support;
g) FC-CT Common Requests;
h) N_Port_ID Virtualization;
i) Management; and
j) FC-4 specific behavior.

The second generation Fibre Channel Device Attach Technical Report will address the need for an updated single Technical Report for interoperable end devices based on current Fibre Channel standards.

3.3 Implementation Impacts of the Technical Report

3.3.1 Development Costs

This Technical Report will be developed through the voluntary and cooperative efforts of T11 Task Committee members. No significant development costs are anticipated.

3.3.2 Impact on Existing or Potential Markets

The proposed Technical Report will provide an upward growth path that complements and enhances existing supplier products and support schemes. The proposed Technical Report will result in expanded applications for existing and conceived products in both the channel and network markets. It is likely that isolated adverse effects would occur in any case through non-standard evolution or revolution.

3.3.3 Costs and Methods for Conformity Assessment

The committee will consider the results of testing provided to the committee through the voluntary efforts of the participants in T11. 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

The return on investment for this development is expected to be high, due to the commonality of effort directed to a singular method of providing the services covered by the proposed Technical Report.

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. T11 is aware of any patent assertions that may be made.

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 the property of INCITS, ANSI, or ISO/IEC.

4. Related Standards Activities

4.1 Existing Standards

(1) ANSI/INCITS 373-2003 Fibre Channel – Framing and Signaling (FC-FS)
(2) ANSI/INCITS 424-2007 Fibre Channel – Framing and Signaling – 2 (FC-FS-2)
(3) INCITS 433:200x, Fibre Channel Link Services (FC-LS)
(4) INCITS 426:2007, Fibre Channel Security Protocols (FC-SP)
(5) X3.272-1996, Fibre Channel Arbitrated Loop (FC-AL)
(6) NCITS 332-1999, Fibre Channel Arbitrated Loop (FC-AL-2)
(7) X3.269-1996, Fibre Channel Protocol for SCSI (FCP)
(8) INCITS 350:2003, Fibre Channel Protocol for SCSI – 2 (FCP-2)
(9) INCITS 416:2006, Fibre Channel Protocol for SCSI – 3 (FCP-3)
(10) X3.288-1996, Fibre Channel Generic Services (FC-GS)
(11) NCITS 288-1999, Fibre Channel Generic Services – 2 (FC-GS-2)
(12) INCITS 348:2000, Fibre Channel Generic Services – 3 (FC-GS-3)
(13) INCITS 387:2004, Fibre Channel Generic Services – 4 (FC-GS-4)
(14) INCITS 427:200x, Fibre Channel Generic Services – 5 (FC-GS-5)
(15) NCITS 321-1998, Fibre Channel Switch Fabric (FC-SW)
(16) INCITS 355:2001, Fibre Channel Switch Fabric – 2 (FC-SW-2)
(17) INCITS 384:2004, Fibre Channel Switch Fabric – 3 (FC-SW-3)
(18) INCITS 418:2006, Fibre Channel Switch Fabric – 4 (FC-SW-4)
(19) ANSI/INCITS 271:1996, Fibre Channel Single-Byte Command Sets Mapping Protocol (FC-SB)
(20) INCITS 349:2001, Fibre Channel Single-Byte Command Sets Mapping Protocol – 2 (FC-SB-2)
(21) ANSI/INCITS 374:2003, Fibre Channel Single-Byte Command Sets Mapping Protocol – 3 (FC-SB-3)

4.2 Related Standards Activity

(1) Project 1828-D, Fibre Channel Protocol for SCSI – 4 (FCP-4).
(2) Project 1822-D, Fibre Channel Switch Fabric – 5 (FC-SW-5).
(3) Project 1833-D, Fibre Channel Generic Services – 6 (FC-GS-6).
(4) INCITS TR-39-2005, Fibre Channel Methodologies for Interconnects – 2 (FC-MI-2).
(5) Project 1745-D, Fibre Channel Inter Fabric Routing (FC-IFR)
(6) Project 1835-D, Fibre Channel Security Protocols – 2 (FC-SP-2)
(7) Project 1786-D, Fibre Channel SATA Tunnelling Protocol (FC-SATA)
(8) INCITS TR-36-2004, Fibre Channel Device Attach (FC-DA)

4.3 Recommendations for Close Liaison
IETF (IP Storage Working Group)

5. Units of measurement
The units of measurement are SI.