IT/99-0023

Accredited Standards Committee* NCITS, Information Technology

Document Number: T11/99-031v0
Date: January 15, 1999
Project Number: n/a
Ref. Doc: T11/98-582v0
Reply to: Kumar Malavalli
Brocade Communication,
1901, Guadalupe Parkway,
San Jose, CA 95131
(408) 487-8156
kumar@brocade.com

Ms. Deborah Donovan
Coordinator, National Standards Processing
NCITS Secretariat, ITI
1250 Eye Street, Suite 200
Washington, DC 20005-3922

Dear Deborah,

Please find attached a draft Project Proposal for a Fibre Channel Generic Services-3 (FC-GS-3) standard. T11 forwarded this draft Project Proposal for further processing at its December 17, 1999 Plenary at Tucson, AZ by a vote of 45 for, 0 opposed and 30 not voting. On December 17, 1999, T11 had 75 members, therefore this vote met the two-thirds rule.

Thank you for your assistance in this matter.

Regards,

Kumar Malavalli
Chair, TC T11

T11/98-582v0

Project Proposal For a New NCITS Standard

FIBRE CHANNEL (FC) THIRD-GENERATION GENERIC SERVICES

1. Source of the Proposed Project

1.1 Title:
Fibre Channel Generic Services-3 (FC-GS-3).

1.2 Date Submitted
December 17, 1998.

1.3 Proposer(s)
NCITS TC T11, with a current membership of 76.

2. Process Description for the Proposed Project

2.1 Project Type (Development or Revision)
D - Development done within NCITS TC.

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.
All Fibre Channel standards are intended for use in closed systems.

2.5 Recommended NCITS Development Technical Committee (Existing or New)

It is recommended that this project be assigned to TC T11, in order that the project be 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)
December 1999.

2.8 Estimated Useful Life of Standard or Technical Report
It is anticipated that this standard 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 services that will be used to support the management and control of Fibre Channel configurations.

Included within this scope are services such as:

(a) Upper level protocol directory services;
(b) Management services;
(c) Time services;
(c) Other services identified during the development of this standard.

Where they exist, the protocols, formats and definitions contained in existing directory and management standards will be considered for use in FC-GS-3.

3.2 Existing Practice and the Need for a Standard
Development of the first generation Fibre Channel Generic Services (FC-GS) draft began in 1994. The FC-GS project addressed the basic Fibre Channel services required to provide the control and management of Fibre Channel environments. The basic Fibre Channel services defined in FC-GS include a Directory Service, a Common Service Transport, a Time Service and Native SNMP Mappings. The FC-GS Standard was eventually published in 1997.

Development of the second generation Fibre Channel Generic Services (FC-GS-2) draft began in mid-1995. The FC-GS-2 project addressed additional services and extensions to FC-GS to increase the management and control

capabilities of Fibre Channel configurations. Many of these services and extensions are now showing up as products in the marketplace.

A draft for the FC-GS-2 project is expected to be forwarded for further processing in late 1998. During the FC-GS-2 project, a number of additional services, and extensions to the services in FC-GS-2 were identified, in many cases as a direct result of bringing those services to the marketplace. Also, several efforts within the industry have been initiated to create higher level services and management capabilities for systems in which Fibre Channel appears.

These new extensions will increase the management and control capabilities of Fibre Channel configurations. However, there is a high level of interest in FC-GS-2, and the development community believes that it is critical that the processing of FC-GS-2 be expedited. Therefore it does not seem appropriate to hold up the release of the FC-GS-2 draft in order to include the enhanced and additional service definitions. Instead, it is proposed that a new project be formed to specify the additional service definitions.

This course of action allows the current Fibre Channel services to be made available to developers in a timely manner, while allowing work to continue on the additional definitions. The definition of the enhanced and additional services is the subject of the this project proposal.

3.3 Implementation Impacts of the Proposed Standard

3.3.1 Development Costs

This standard 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 standard will provide an upward growth path that complements and enhances existing supplier products and support schemes. The proposed standard 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 standard. Additionally, the investment made in products developed under FC-GS-2 will be preserved by providing services within the existing infrastructure.

3.4 Legal Considerations

3.4.1 Patent Assertions

Calls will be made to identify assertions of patent rights in accordance with the relevant NCITS, 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 NCITS, ANSI, or ISO/IEC.

4. Related Standards Activities

4.1 Existing Standards

(1) X3.230-1994, Fibre Channel Physical and Signalling Interface (FC-PH).
(2) X3.297-1997, Fibre Channel Physical and Signalling Interface - 2 (FC-PH-2).
(3) X3.272-1996, Fibre Channel Arbitrated Loop (FC-AL).
(4) X3.269-1996, Fibre Channel Protocol for SCSI-3 (FCP).
(5) X3.289-1996, Fibre Channel Fabric Generic (FC-FG).
(6) X3.288-1996, Fibre Channel Generic Services (FC-GS).
(7) NCITS TR-19-1998, Fibre Channel Private Loop Direct Attach (FC-PLDA).
(8) NCITS TR-20-1998, Fibre Channel Fabric Loop Attach (FC-FLA).

4.2 Related Standards Activity

(1) NCITS 303-199x, Fibre Channel Physical and Signalling Interface - 3 (FC-PH-3).
(2) NCITS 321-199x, Fibre Channel Switch Fabric (FC-SW).
(3) NCITS 272-199x, Fibre Channel Arbitrated Loop - 2 (FC-AL-2).
(4) NCITS 288-199x, Fibre Channel Generic Services - 2 (FC-GS-2).

There are also existing standards, and standards in development, outside of the suite of Fibre Channel standards that address services which are similar to those which will be contained in FC-GS-3 (e.g., directory services, systems management). The development of the FC-GS-2 service definitions will build on the work in FC-GS-2 and will be guided, as appropriate, by standards outside the suite of Fibre Channel standards.

4.3 Recommendations for Coordinating Liaison

None.

4.4 Recommendations for Close Liaison

None.