

Draft Minutes

T11.3 FC-FS-2 ad hoc work group meeting

5 December 2005 - 9 AM to 12:30 PM

Garden Grove CA

Version 1: (Replaces 05-833v0)
Corrected header of attendance list.
Corrected resolution of Cisco-012 and added resolution for Cisco-005.

The FC-FS-2 ad hoc work group of INCITS Technical Committee T11 Task Group T11.3 held a meeting at Garden Grove CA on 5 December 2005, hosted by Northrop Grumman. Attendance was 17 people from 16 companies and is tabulated at the end of this document.

Minutes were taken by Bob Nixon (bob.nixon@emulex.com). Please report any corrections by email to the T11.3 reflector at T11_3@mail.T11.org.

1 Opening remarks and introductions

Chairperson Bill Martin opened the meeting Monday, 5 December 2005 at 9:12 AM. He thanked our host company, Northrop Grumman, and led a round of introductions.

2 Review of Minutes

Minutes for the FC-FS-2 ad hoc work group meeting 3 October 2005 have been posted as T11/05-700v1.

It was moved by Bob Nixon and seconded by Horst Truedtedt to accept T11/05-700v1 as the minutes of the FC-FS-2 ad hoc work group meeting on 3 October 2005. Approved unanimously.

3 Approval of Agenda

T11/05-818v1

It was moved by Bill Martin and seconded by Jim Coomes to accept T11/05-818v1 as the agenda for this meeting. Approved unanimously.

4 Review of Old Action Items

- AI 100 Bob Dugan to determine what is the documentation for the algorithm that generates the values in the 8B10B table in FC-FS-2 and generate a letter ballot comment to add that informative reference to FC-FS-2.
(Opened 8 August 2005)
- AI 110 Bob Snively to publish T11/05-639v1 reflecting T11/05-639v0 and the agreements at the FC-FS-2 ad hoc work group meeting 5 December 2005.
(Opened 3 October 2005) (CLOSED by T11/05-639v1)

- AI 111 Horst Truedstedt to publish T11/05-644v2, reflecting T11/05-644v1 and the agreements at the FC-FS-2 ad hoc work group meeting 5 December 2005.
(Opened 3 October 2005) (CLOSED by T11/05-644v2)
- AI 112 FC-FS-2 chair to recommend to T11.3 to forward T11/05-644v2, reflecting T11/05-644v1 and the agreements at the FC-FS-2 ad hoc work group meeting 5 December 2005, to T11 for further processing as amendment 2 to FC-AL-2.
(Opened 3 October 2005) (CLOSED, see T11.3 minutes T11/05-732v0)
- AI 113 Claudio DeSanti to post the presentations he made to the FC-FS-2 ad hoc work group on 5 December 2005 on the topic of frame fill bytes within an encrypted payload (Cisco-001).
(Opened 3 October 2005) (CLOSED by T11/05-708v0)
- AI 114 Bob Nixon to propose clarifications to the description of segmentation and reassembly (Emulex-4).
(Opened 3 October 2005) (Carryover)
- AI 115 Bob Nixon to report on the history and relevance of transmitter state machine to FC-FS-2 (Sierra_Logic-37).
(Opened 3 October 2005) (CLOSED by T11/05-777v1)
- AI 116 FC-FS-2 secretary is to try to correct the filing of the August minutes.
(Opened 3 October 2005) (CLOSED, done on October 4, 2005)

5 Meeting Policies

5.1 Attendance and Membership

Bill Martin stated that all persons present are considered members of this meeting and may vote on questions, limited to one vote per company present. Attendance at this meeting does not count toward attendance at the plenaries of T11 and its task groups (i.e., being here will not get you out or keep you out of membership jeopardy).

5.2 Patents

Bill Martin indicated that among the rules and policies under which this working group operates are the INCITS patent policies. He requested persons wishing to make statements or ask questions relevant to this policy not to do so at this work group meeting, but instead to do so at the T11.3 or T11 plenary meeting.

The INCITS patent policies are specified in subclause 8.4 of RD-1, "Policies and Guidelines", available at

http://www.incits.org/sd9_rev1c.htm#p8-4

5.3 Antitrust

Bill Martin indicated that among the rules and policies under which this working group operates are the INCITS Antitrust Guidelines. Any member of the meeting is responsible for objecting if he believes discussion in the meeting violates those guidelines. If such discussion is not immediately terminated, it is the chairperson's responsibility to terminate the meeting.

The INCITS Antitrust Guidelines are available at

<http://www.incits.org/inatrust.htm>

6 FC-AL-2 Business

6.1 T11 Response to ISO Editor Concerning FC-AL-2 Amendment 2

T11/05-638v0, 639v1 Snively/Brocade

Answers were posted as agreed at the last meeting to questions raised by the ISO editor on FC-AL-2.

It was moved by Bill Martin and seconded by Horst Truedstedt to accept T11/05-639v1 as the response to questions concerning FC-AL-2 raised by the ISO editor, and recommend to T11.3 to forward it to T11 for response to the ISO editor. Approved unanimously.

ACTION: FC-FS-2 chair to recommend to T11.3 to forward T11-05-639v1 to T11 for forwarding to ISO as T11's response to the ISO editor's questions concerning FC-AL-2.

6.2 FC-AL-2 Amendment

T11/05-644v2

Martin/Sierra Logic

ACTION: FC-FS-2 chair to remind the T11 chair to assure that FC-AL-2 Amendment 2 gets forwarded to INCITS.

7 FC-FS-2 Business

7.1 Call to Obsolete Class 4 service

At the prior meeting of FC-LS, that group recommended that the FC-FS-2 work group obsolete Class 4 service. An announcement of this intention and request for issues was posted on the T11 task group email reflectors. Two organizations expressed knowledge of possible products using Class 4 and requested that the question be deferred until the next revision of FC-FS-x. Bob Kembel has volunteered to do any work necessary to resolve letter ballot comments against Class 4 service.

It was moved by Bob Nixon and seconded by Ralph Weber to reject the recommendation of FC-LS work group to obsolete Class 4 service in FC-FS-2.

It was observed that there is only one comment against Class 4.

It was observed that although there are few comments against Class 4, there are larger known issues.

It was observed that, given limited implementation of Class 4, perhaps the definition in FC-FS is sufficient.

It was observed that obsoleting Class 4 requires work in other standards as well. Several present volunteered to do the work necessary to obsolete Class 4.

It was observed that Class 4 lacks any means of interoperation beyond a single switch environment.

A late comment was added to remove Class 4 because there is no definition of interoperation beyond a single switch environment.

It was moved by Ralph Weber and seconded by Bill Martin to defer consideration of the motion on the floor until the February meeting of the FC-FS-2 work group. Approved unanimously.

The motion to reject the recommendation of FC-LS work group to obsolete Class 4 service in FC-FS-2 was deferred until the February meeting of the FC-FS-2 work group.

ACTION: FC-FS-2 secretary to notify the T11 task group reflectors that the decision on obsoleting Class 4 has been deferred to the February meeting of the FC-FS-2 work group and that those wishing clarification on the complexities of making Class 4 acceptable for retention may contact Craig Carlson or Claudio DeSanti.

7.2 Obsolete Transmitter State Machine

T11/05-777v0

Nixon/Emulex

Bob reviewed the history of the transmitter state machine and based on that, recommended that it be removed from FC-FS-2 in deference to FC-PI-2.

It was agreed to Correct the title of clause 6 and add a new 6.1 explaining that FC-0 is not involved in receiver and FC-1 is not involved in transmitter, thus the partitioning between FC-FS-2 and FC-PI-2.

Bob will bring back a revision in February.

7.3 Secured Frames

T11/05-778v0

DeSanti/Cisco

Claudio proposed revisions to the diagram of Fibre Channel frames with ESP headers, particularly to reflect the possibility that frame fill bytes are added before security transformations, and emphasize that the payload is opaque.

Agreed to describe the data passed in the second item 5 in 11.2 as, "and process the resulting optional headers, payload, and fill bytes."

Agreed to replace the reference to RFC 2406 with a reference to its revision, RFC 4303. "and process the resulting

It was moved by Claudio DeSanti and seconded by Bob Nixon to incorporate T11/05-778v1 into FC-FS-2, reflecting T11/05-778v0 and the agreements at the FC-FS-2 ad hoc work group meeting 5 December 2005. Approved unanimously.

ACTION: DeSanti/Nixon to publish T11/05-778v1 reflecting T11/05-778v0 and the agreements at the FC-FS-2 ad hoc work group meeting 5 December 2005.

ACTION: FC-FS-2 editor to incorporate T11/05-778v1 into FC-FS-2.

7.4 IEEE OUI tutorials for SCSI, FC, & ATA

T11/05-802v0

Elliott/HP

Bob Nixon presented in behalf of Rob Elliott. This document includes a proposed replacement of the tutorial on Fibre Channel use of Organization Unique Identifier (OUI). IEEE requires such a tutorial as a condition of other organizations' use of OUI. T11 has previously provided one, but it is badly out of date, given new forms of Name_Identifier in the last few years.

It was moved by Bob Nixon and seconded by Bill Martin to recommend to T11.3 to recommend to T11 to provide IEEE with the Fibre Channel tutorial contained in 05-802v0, and to thank Rob Elliott for the work done in behalf of T11. Approved 14Y, 0N, 1A.

ACTION: FC-FS-2 chair to recommend to T11.3 to recommend to T11 to provide IEEE with the Fibre Channel tutorial contained in 05-802v0

ACTION: FC-FS-2 editor to incorporate the the Fibre Channel tutorial contained in 05-802v0 into FC-FS-2.

The sense of the FC-FS-2 work group is that the tutorials for SCSI, FC, and ATA be submitted individually.

7.5 FC-FS-2 Letter Ballot Comment Resolution T11/05-660v3

7.5.1 Emulex-4

Pending AI-114

7.5.2 Sierra-Logic-13

Pending AI-114

7.5.3 Agilent-8

Pending AI-114

7.5.4 Sierra-Logic-37

Pending a revision to 05-777

7.5.5 Sierra-Logic-78

Accept. Resolved by 05-778v1.

7.5.6 Sierra-Logic-79

Accept. Resolved by 05-778v1.

7.5.7 Cisco-001

Accept. Resolved by 05-778v1.

7.5.8 Emulex-10

Accept.

7.5.9 Emulex-12

Accept.

7.5.10 Emulex-13

Accept, but change the revised text to a complete sentence.

7.5.11 Emulex-15

Accept.

7.5.12 Emulex-16

Accept in principle. The proposed revised statement also had problems, so a clearer statement was prepared.

7.5.13 Emulex-17

Accepted, with the subclause number at issue corrected to 12.2.3.4.37 and the revised text extended to a complete sentence.

7.5.14 Emulex-18

Accept.

7.5.15 SPC-011

Accepted. A correction was worked out.

7.5.16 Emulex-19

Accept

7.5.17 Cisco-005

Open. Accepted the requested table restructuring. Additionally, wording was worked out to clarify that the ESB data structure is a logical construct and not required to be visible. Accepted for the ESB. still pending possible action by FC-LS for the SSB.

7.5.18 Cisco-012

Accept. A resolution was developed and agreed by the work group.

8 Project Schedule

| Milestone | Expected date |
|---------------------------|--------------------------|
| Final new technical input | Completed April 2005 |
| Letter Ballot | Completed September 2005 |
| INCITS First PR | Not yet determined |

9 Meeting Schedule

9.1 Interim request

A conference call is requested for Thursday January 19, 9 AM to 1 PM Pacific time.

Action: FC-FS-2 chair to set up a teleconference for Thursday January 19, 9 AM to 1 PM Pacific time.

9.2 Next Plenary Week

Request 5 hours following FC-LS at the T11 plenary week hosted by QLogic in Dana Point CA, 6-10 February 2005.

10 Review of Action Items

- AI 100 Bob Dugan to determine what is the documentation for the algorithm that generates the values in the 8B10B table in FC-FS-2 and generate a letter ballot comment to add that informative reference to FC-FS-2.
(Opened 8 August 2005)
- AI 114 Bob Nixon to propose clarifications to the description of segmentation and reassembly (Emulex-4).
(Opened 3 October 2005) (Carryover)
- AI 117 FC-FS-2 chair to recommend to T11.3 to forward T11-05-639v1 to T11 for forwarding to ISO as T11's response to the ISO editor's questions concerning FC-AL-2.
(Opened 5 December 2005)
- AI 118 FC-FS-2 chair to remind the T11 chair to assure that FC-AL-2 Amendment 2 gets forwarded to INCITS.
(Opened 5 December 2005)
- AI 119 FC-FS-2 secretary to notify the T11 task group reflectors that the decision on obsoleting Class 4 has been deferred to the February meeting of the FC-FS-2 work group and that those wishing clarification on the complexities of making Class 4 acceptable for retention may contact Craig Carlson or Claudio DeSanti
(Opened 5 December 2005)
- AI 120 DeSanti/Nixon to publish T11/05-778v1 reflecting T11/05-778v0 and the agreements at the FC-FS-2 ad hoc work group meeting 5 December 2005.
(Opened 5 December 2005) (Closed by 05-778v1)
- AI 121 FC-FS-2 editor to incorporate T11/05-778v1 into FC-FS-2.
(Opened 5 December 2005)
- AI 122 FC-FS-2 chair to recommend to T11.3 to recommend to T11 to provide IEEE with the Fibre Channel tutorial contained in 05-802v0.
(Opened 5 December 2005)
- AI 123 FC-FS-2 editor to incorporate the the Fibre Channel tutorial contained in 05-802v0 into FC-FS-2.
(Opened 5 December 2005)
- AI 124 FC-FS-2 chair to set up a teleconference for Thursday January 19, 9 AM to 1 PM Pacific time.
(Opened 5 December 2005)

11 Adjournment

It was moved by Bill Martin and seconded by Bob Nixon to adjourn. Approved unanimously.

The meeting was adjourned at 12:40 PM on 5 December 2005.

12 Status of Open Proposals

| Document Title | Number | Disposition |
|---|------------|--|
| Editorial draft of ISO/IEC 14165-122 (FC-AL-2) | T11/05-638 | Close, see 05-639. |
| T11 Response to ISO Editor Concerning FC-AL-2 Amendment 2 | T11/05-639 | Close, approved T11/05639v1. |
| Obsolete Transmitter State Machine | T11/05-777 | Open pending revisions. Latest version is T11/05-777v0. |
| Secure Frames | T11/05-778 | Close, approved T11/05-778v1. |
| IEEE OUI tutorials for SCSI, FC, & ATA | T11/05-802 | Close, recommended forwarding to IEEE of Fibre Channel portion of T11/05-802v0 |

13 Attendance

| Organization | Representative |
|-----------------------------|-------------------|
| AVAGO TECHNOLOGIES | Roy Elsbernd |
| CISCO SYSTEMS | Claudio DeSanti |
| EMULEX | Bob Nixon |
| ENDL TEXAS | Ralph Weber |
| IBM | Kevin Butt |
| IBM POUGHKEEPSIE | Robert Dugan |
| MARVELL | David Geddes |
| MCDATA CORPORATION | Joe Pelissier |
| NORTHROP GRUMMAN | James Nelson |
| PACKETLIGHT | Eyal Gabay |
| PMC-SIERRA | Brett Clark |
| QLOGIC | Craig Carlson |
| SEAGATE TECHNOLOGY | James Coomes |
| SIERRA LOGIC | William R. Martin |
| STORAGE PROTOCOL CONSULTING | Nancy Wanamaker |
| SUN MICROSYSTEMS | Matt Gaffney |
| TRUE FOCUS | Horst Truustedt |
| XIOTECH | Jeffrey Williams |