

Draft Minutes

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

6 June 2005 - 9 AM to noon

St. Paul MN

The FC-FS-2 ad hoc work group of INCITS Technical Committee T11 Task Group T11.3 held a meeting at St. Paul MN on 6 June 2005, hosted by McData. Attendance was 22 people from 18 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, 6 June 2005 at 9:10 AM. He thanked our host company, McData, and led a round of introductions. He instructed those present how to register their attendance via the wireless network.

1.1 Review of Minutes

Minutes for the following meetings were reviewed:

- a) Meeting 4 April 2005 (T11/05-260v0);
- b) Teleconference 27 April 2005 (T11/05-317v0); and
- c) Teleconference 12 May 2005 (T11/05-340v0).

It was moved by Bob Nixon and seconded by Bill Martin to accept T11/05-260v0 as the minutes of the FC-FS-2 ad hoc work group meeting on 4 April 2005 and to accept T11/05-317v0 as the minutes of the FC-FS-2 ad hoc work group teleconference on 27 April 2005 and to accept T11/05-340v0 as the minutes of the FC-FS-2 ad hoc work group teleconference on 12 May 2005. Approved unanimously.

2 Approval of Agenda

T11/05-399v0

It was moved by Bill Martin and seconded by Bob Nixon to accept T11/05-399v0 as the agenda for this meeting. Approved unanimously.

3 Review of Old Action Items

- AI 36 FC-FS-2 editor to fix figures in FC-FS-2 as directed by T11/04-312v0.
(Opened 7 June 2004) (Carryover)
- AI 56 Harry Paul will research whether FC-FS-2 as modified by T11/04-602v2 allows alternate credit management.
(Opened 6 December 2004) (Transferred to Dave Peterson) (Carryover)

- AI 68 Ralph Weber to propose a convention for organizing reference citations in T11 stuff, specifically to note the distinctions of ISO, ISO national body, and other sources.
(Opened 31 January 2005) (CLOSED by T11/05-090v0)
- AI 72 Bob Nixon to publish T11/05-213v1 reflecting T11/05-213v0 and the agreements at the FC-FS-2 ad hoc work group meeting 4 April 2005.
(Opened 4 April 2005) (CLOSED by T11/05-213v1)
- AI 73 FC-FS-2 editor to incorporate T11/05-213v1 into FC-FS-2.
(Opened 4 April 2005) (CLOSED by 05-190v1)
- AI 74 Claudio DeSanti to provide source for T11/05-187v0 to FC-FS-2 editor.
(Opened 4 April 2005) (CLOSED)
- AI 75 FC-FS-2 editor to incorporate T11/05-187v0 into FC-FS-2.
(Opened 4 April 2005) (CLOSED by 05-190v1)
- AI 76 Claudio DeSanti to publish T11/05-186v1.
(Opened 4 April 2005) (CLOSED by T11/05-186v1)
- AI 77 FC-FS-2 editor to incorporate T11/05-186v1 into FC-FS-2.
(Opened 4 April 2005) (CLOSED by 05-190v1)
- AI 78 Bob Nixon to publish T11/05-199v1 reflecting T11/05-199v0 and the agreements at the FC-FS-2 ad hoc work group meeting 4 April 2005.
(Opened 4 April 2005) (CLOSED by T11/05-199v1)
- AI 79 FC-FS-2 editor to incorporate T11/05-199v1 into FC-FS-2.
(Opened 4 April 2005) (CLOSED by 05-190v1)
- AI 80 Bill Martin will schedule a conference call to continue discussion of T11/05-229v0.
(Opened 4 April 2005) (CLOSED by teleconference 27 April 2005)
- AI 81 Bill Martin will schedule a conference call to continue discussion of T11/05-243v0.
(Opened 4 April 2005) (CLOSED by teleconference 12 May 2005)

4 Meeting Policies

4.1 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).

4.2 Patents

Bill Martin indicated that among the rules and policies under which this working group operates are the INCITS patent policies. He directed persons wishing to make statements or ask questions relevant to this policy 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

4.3 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.

The INCITS Antitrust Guidelines are available at

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

5 Old Business

5.1 dpANS - Fibre Channel - Framing and Signaling - 2 T11/05-190v1 Nixon/Emulex

Bob reported that FC-FS-2 version 0.70 has been published as T11/05-190v1. This version incorporates all the proposals approved at the FC-FS-2 meeting 4 April 2005. Also, all the diagrams in the clause describing Class 4 have been redrawn using native FrameMaker tools in the ongoing effort to resolve issues identified in T11/04-312v0. Bob directed those present to the revision history for explanations of editorial changes in this version.

5.2 FC-FS-2: Editor's Issues with Version 0.70 T11/05-359v0 Nixon/Emulex

It was agreed that in the example of a Fibre Channel Service in 4.11 "Name Server" is not a service, and should be replaced by Directory Service.

ACTION: Bob Nixon to bring to FC-GS-5 a proposal to replace Fibre Channel Service with Generic Service.

It was moved by Bob Nixon and seconded by Claudio DeSanti to incorporate T11/05-359v1 into FC-FS-2, reflecting T11/05-359v0 and the agreements at the FC-FS-2 ad hoc work group meeting 6 June 2005. Approved unanimously.

ACTION: Bob Nixon to publish T11/05-359v1 reflecting T11/05-359v0 and the agreements at the FC-FS-2 ad hoc work group meeting 6 June 2005.

ACTION: FC-FS-2 editor to incorporate T11/05-359v1 into FC-FS-2.

5.3 ARBff for 8Gb links T11/05-050v0 Martin/Sierra Logic

Bill showed revisions to the posted proposal that follow the direction of the prior meeting to use the term "fill words" to indicate either IDLE or ARBff.

It was agreed to define Emission Limiting Protocol as a term by which physical layer standards may reference using ARBff in place of IDLE; and to eliminate from the proposal any requirements in FC-FS-2 for using ARBff at specific link speeds.

It was questioned whether ARBff would work in place of IDLEs required for protocol state transitions.

ACTION: Bill Martin to send a reflector message asking if implementations would be inconvenienced if IDLE may be replaced by ARBff during initialization.

Bill will bring a revision to this proposal to the next meeting for hopefully final consideration. [A teleconference was later approved for this activity - secretary]

5.4 Proposed Text concerning Fabric Naming T11/05-019v2 Snively/Brocade

This proposal broadens the requirements for Name_Identifier uniqueness. This is to support use of Name_Identifiers in management tools that operate on a set of entities that spans more than a single fabric.

The requirement for name uniqueness across different types of named entities was questioned. Storage devices with a single LUN and maybe storage virtualization devices were thought to provide examples, such as the same name for a port and a node, or for a device and its only logical unit. It was nevertheless considered important that names be unique across all types of entities.

It was agreed that Name_Identifier uniqueness across all types of entity will be required for compliance.

It was agreed that in the definition of Fibre Channel Interaction Space, to change "may be accessed" to "are accessible", to remove "of all kinds" and change "the same" to "a common instance of".

It was questioned whether the definition of Fibre Channel Interaction Space allows the possibility of partly overlapping spaces, leading to ambiguity about the space membership of devices in the overlap. The questioner agreed to rethink the question in the light of the discussion, and to bring in a separate proposal if he remained concerned.

It was moved by Bob Snively and seconded by Bob Nixon to incorporate the FC-FS-2 portion of T11/05-019v3 into FC-FS-2, reflecting T11/05-019v2 and the agreements at the FC-FS-2 ad hoc work group meeting 6 June 2005. Approved unanimously.

ACTION: Bob Snively to publish T11/05-019v3 reflecting T11/05-019v2 and the agreements at the FC-FS-2 ad hoc work group meeting 6 June 2005.

ACTION: FC-FS-2 editor to incorporate the FC-FS-2 portion of T11/05-019v3 into FC-FS-2.

6 New Business

6.1 References to ISO/ANSI standards T11/05-090v0 Weber/ENDL

The proposal establishes a convention for references to other standards that will resolve issues raised in ISO review of FC-FS.

It was moved by Bill Martin and seconded by Bob Nixon to incorporate T11/05-090v0 into FC-FS-2. Approved unanimously.

ACTION: FC-FS-2 editor to incorporate T11/05-090v0 into FC-FS-2.

7 Project Schedule

Milestone	Expected date
Final new technical input	Completed April 2005
Letter Ballot	after the August 2005 meeting
INCITS First PR	Not yet determined

ACTION: Bill Martin to schedule a conference call to resolve final issues with ARBff for 8Gb links (T11/05-050v0) Monday July 18 at noon PDT.

8 Review of Action Items

- AI 36 FC-FS-2 editor to fix figures in FC-FS-2 as directed by T11/04-312v0.
(Opened 7 June 2004) (Carryover)
- AI 56 Dave Peterson will research whether FC-FS-2 as modified by T11/04-602v2 allows alternate credit management.
(Opened 6 December 2004) (Transferred from Harry Paul 6 June 2005) (Carryover)
- AI 82 Bob Nixon to bring to FC-GS-5 a proposal to replace Fibre Channel Service with Generic Service.
(Opened 6 June 2005)
- AI 83 Bob Nixon to publish T11/05-359v1 reflecting T11/05-359v0 and the agreements at the FC-FS-2 ad hoc work group meeting 6 June 2005.
(Opened 6 June 2005) (CLOSED by T11/05-359v1)
- AI 84 FC-FS-2 editor to incorporate T11/05-359v1 into FC-FS-2.
(Opened 6 June 2005)
- AI 85 Bill Martin to send a reflector message asking if implementations would be inconvenienced if IDLE may be replaced by ARBff during initialization.
(Opened 6 June 2005)
- AI 86 Bob Snively to publish T11/05-019v3 reflecting T11/05-019v2 and the agreements at the FC-FS-2 ad hoc work group meeting 6 June 2005.
(Opened 6 June 2005) (CLOSED by T11/05/019v3)
- AI 87 FC-FS-2 editor to incorporate the FC-FS-2 portion of T11/05-019v3 into FC-FS-2.
(Opened 6 June 2005)
- AI 88 FC-FS-2 editor to incorporate T11/05-090v0 into FC-FS-2.
(Opened 6 June 2005)
- AI 89 Bill Martin to schedule a conference call to resolve final issues with ARBff for 8Gb links (T11/05-050v0) Monday July 18 at noon PDT.
(Opened 6 June 2005)

AI 90 Next AI

9 Meeting Schedule

9.1 Interim request

A conference call will be scheduled Monday July 18 at noon PDT to resolve final issues with ARBff for 8Gb links (T11/05-050v0).

9.2 Next Plenary Week

It was reported that substantial work may be needed to prepare an ISO version of FC-AL-2. Among the issues were references to internal items in obsolete specifications.

Options include assuring the old standards are retained rather than obsoleted, and changing FC-PH references to FC-FS (may be considered substantive).

A related question is whether to include the most recent issue raised and resolved for FC-AL-2 (an ARBff issue). This would make it substantive. Alternatively, the current amendment could be modified to include the ARBff fix, and forwarded separately.

It was moved by Bob Snively and seconded by Bill Martin that the guidance of the group present be to update the ISO version of FC-AL-2 to reference current standards and incorporate the ARBff fix. Approved unanimously.

Request 3 hours for FC-FS-2 and FC-AL-2 at the T11 plenary week hosted by Nortel in Ottawa ON, 8-12 August 2005.

10 Adjournment

It was moved by Bill Martin and seconded by Horst Truedstedt to adjourn. Approved unanimously.

The meeting was adjourned at 11:59 AM on 6 June 2005.

11 Actions on Proposals at This Meeting

Document Title	Number	Disposition
FC-AL Fairness Problem	T11/04-762	Carry for further revision. Latest version is T11/04-762v2.
Transmit adaptive equalization	T11/04-805	Carry pending technical specification.
Fabric Naming text	T11/05-019	Close. Approved T11/05-019v3.
ARBff for 8Gb links	T11/05-050	Carry for further revision. Latest version is T11/05-050v0.
Congestion Control in Fibre Channel	T11/05-229	Close. Will not be pursued in its current form.
Initialization diagram	T11/05-243	Close. Will not be pursued in its current form.
References to ISO/ANSI standards	T11/05-090	Close. Approved T11/05-090v0
Editor's Issues with revision 0.70	T11/05-359	Close. Approved T11/05-359v1.

12 Attendance

Company	Representative
AGILENT	Roy Elsbernd
BROCADE COMMUNICATIONS	Robert Snively
BROCADE COMMUNICATIONS	Steven L. Wilson
CISCO SYSTEMS, INC.	Claudio DeSanti
EMULEX	Bob Nixon
EMULEX	Ken Hirata
ENDL TEXAS	Ralph Weber
FINISAR CORP.	Neil Wanamaker
LUCENT TECHNOLOGIES	Richard DiPasquale
MCDATA	Scott Kipp
PACKETLIGHT	Koby Reshef
QLOGIC CORP.	Craig Carlson
SEAGATE TECHNOLOGY	James Coomes
SIERRA LOGIC	William R. Martin
SMITHS AEROSPACE INC.	John Schroeder
SOLUTION TECHNOLOGY	Robert Kembel
STORAGETEK	Matt Gaffney
STORAGETEK	Michael Roy
SUN MICROSYSTEMS	Vit Novak
TOSHIBA AMERICA ELECTRONIC COMPONENTS INC	Harry Peterson
TOSHIBA AMERICA ELECTRONICS COMPONENTS	Kevin Voegele
TRUE FOCUS, INC	Horst Truestedt