

Draft Minutes

T11.3 FC-FS Ad Hoc Meeting

5 and 7 November 2002 - 9 AM to 5 PM

Huntington Beach California

An ad hoc meeting of work group FC-FS of INCITS Technical Committee T11 Task Group T11.3 was held at Huntington Beach California on 5 and 7 November 2002. Attendance at this meeting was 8 people from 8 companies and is tabulated at the end of this document.

Minutes were taken by Bob Nixon (bob.nixon@emulex.com)

1 Opening remarks and introductions

Bob Nixon

Facilitator John Scheible being delayed, Secretary Bob Nixon opened the meeting Tuesday, 5 and 7 November 2002 at 9:06 AM. He thanked our host company, QLogic, and led a round of introductions. Bob then indicated that among the rules and policies under which this work group operates are the T11, INCITS, and ANSI patent policies. He directed persons wishing to ask questions or make statements relevant to those policies to do so at the T11.3 or T11 plenary meeting.

During the course of the meeting, a recess was observed from 6:03 PM 5 November until 1:30 PM 7 November.

2 Call for changes to minutes

2.1 FS report to T11.3 - 10/10/02

02-620v0

John Scheible

Approved as written

2.2 FS minutes - 10/08/02

02-628v0

Bob Nixon

in 5.10.1, "Brocade-088" should be "Brocade-008"

Approved as corrected.

3 Approval of this agenda

02-661v0

John Scheible

Craig Carlson will present proposal 02-662v0 to elaborate on the resolution for QLogic-027

Dave Peterson will discuss the resolution of Late-006 with respect to FCP.

Approved as modified

4 Review of old FS action items

02-661v0

John Scheible

4.1 Craig Carlson to propose a more complete resolution to QLogic-027 than contained in the comment. (Opened 6/11/02) (CLOSED by 02-662v0)

4.2 Craig Carlson to prepare a proposal for text concerning QLogic-044 to be inserted in the relevant

- tables.
(Opened 7/16/02) (CARRYOVER)
- 4.3 Dave Peterson to provide resolution for QLogic-012 (need to post 02-557v0)
(Opened 8/6/02) (CARRYOVER)
- 4.4 Gary Stephens to provide resolution for FSI-011
(Opened 8/6/02) (CLOSED by 02-618v0)
- 4.5 Gary Stephens to provide clarification on the comment for FSI-016
(Opened 8/6/02) (CLOSED by 02-619v0)
- 4.6 Dave Peterson to bring the issues of Late-006 to the attention of T10.
(Opened 8/6/02) (CLOSED by discussion today)
- 4.7 Craig Carlson to review the list of ELSs in QLogic-038.
(Opened 8/6/02) (CARRYOVER)
- 4.8 Craig Carlson to request feedback from SW group on meaning of "first" in Andiamo-057
(opened 9/10/02) (CARRYOVER)
- 4.9 Bob Nixon to publish 02-501v1 from 02-501v0 and the changes agreed at the FC-FS meeting 10/8/02.
(opened 10/8/02) (CLOSED by 02-501v1)
- 4.10 Dave Peterson to publish 02-384v2 from 02-384v1 with the changes agreed at the FC-FS meeting 10/8/02.
(opened 10/8/02) (CLOSED by 02-384v2)
- 4.11 John Scheible to publish 02-569v1 from 02-569v0 including the agreements at the meeting of FC-FS 10/8/02.
(opened 10/8/02) (CLOSED by 02-569v2)
- 4.12 Bill Martin to bring FC-FS comment QLogic-051 to the attention of the FC-MI-2 work group.
(opened 10/8/02) (CARRYOVER)
- 4.13 Craig Carlson to publish a document proposing a resolution to QLogic-061.
(opened 10/8/02) (CLOSED by 02-662v0)
- 4.14 Bob Nixon to send email advising the community that comments pending action items not met by December will be rejected, and late comments will be difficult to approve after the T11.3 plenary meeting on 10/10/02.
(opened 10/8/02) (CLOSED by email 10/18/02)

5 Scheduled FS Business

5.1 Reverting REC to ELS

02-501v1

Bob Nixon

02-501v1 incorporates changes agreed during discussion of the prior version at the FC-FS ad hoc meeting 10/8/02

It was moved by Bob Nixon and seconded by Claudio DeSanti to incorporate 02-501v1 into FC-FS. Approved with no objections.

5.2 Pre-emption clarification

02-527v0

Mike Foster

Deferred, presenter was not present.

5.3 Receiver state diagram rewrite

02-569v2

John Scheible

Some grammatic errors were pointed out and will be fixed.

Agreed that references to "laser safety conditions" in the transmitter state transitions are spurious relics of OFC and will be removed.

ACTION: John Scheible to publish 02-569v3 from 02-569v2 and the agreements at the FC-FS meeting on 5 November 2002

It was moved by John Scheible and seconded by Bob Nixon to incorporate 02-569v3 into FC-FS. Approved with no objections.

5.4 Resolution for QLogic-027

02-662v0

Craig Carlson

Craig detailed an earlier proposal to resolve the interpretation of "discard and ignore". Basic question is whether to return R_RDY. The background is not very specific, but leans toward returning R_RDY. If not, credit is lost. Unfortunately, both implementations exist. The proposal is that the R_RDY may be sent, and the switch will reset its credit when it receives the FLOGI. This exposes several kinds of race conditions, for which no satisfactory solution was devised

Agreed that sending R_RDY in reply to a class F frame will be optional for Nx_Ports.

Agreed that switches should reset credit on receiving FLOGI and the wording for credit reset will be borrowed from link reset if possible.

ACTION: Craig Carlson to publish detailed text to implement the alternatives from 02-662v0 agreed at the FC-FS meeting 5 November 2002.

5.5 Issue with FCP-2 and ABTS w/o login

nodoc

Dave Peterson

Late-006 points out a discrepancy between FC-FS and FCP-2: FC-FS says ABTS is legal without login and therefore a BA_ACC or BA_RJT reply is appropriate. FCP-2 says to treat it as illegal and send LOGO.

This could be fixed by changing FCP-x to require ABTS reply or changing FC-FS to permit LOGO. FS does not actually prevent the LOGO (at any time) but does not document it specifically as an ABTS response. Dave preferred to change FCP-3.

Agreed that no change is needed to FC-FS.

Agreed that FCP-3 will be asked to eliminate reference to how to reply to an ABTS received in absence of login, as it is outside the scope of FCP.

Dave being the editor of FCP-3, no formal action is required.

5.6 FC-FS problem compilation

02-161v9

John Scheible

5.6.1 Status at the start of the meeting: Technical 85 unresolved; Editorial 11 unresolved.

5.6.2 Exabyte-L09 (aka Late-006): Accepted. Agreed that FCP-3 will be asked to eliminate reference to how to reply to an ABTS received in absence of login, as it is outside the scope of FCP.

5.6.3 Andiamo-027: Accepted. Claudio DeSanti questioned the editorial rejection of this comment reflected in 02-161v9. His objection was accepted, and the resolution was to move the questionable table row above the subheader row that now makes it inconsistent.

5.6.4 FSI-011: 02-618v0 seemed incomplete.

As in the original comment resolution in 02-161v9, the approach should include to change the connection and connectionless “fabrics” to “services”.

Several changes are needed in 4.10.

13.3.2 and 13.4.2 are the only other references.

Bill Martin prepared and presented a counterproposal.

It was moved by John Scheible and seconded by Claudio DeSanti to incorporate Bill Martin’s proposal as solution to FSI-011

ACTION: Bill Martin to publish the revised resolution for FSI-011 he presented at the FC-FS meeting 5 November 2002.

5.6.5 FSI-016: Deferred. 02-619v0 raised questions, but no one present felt competent to resolve them.

5.6.6 Pirus-004: Accepted. Strike the 3rd para of 4.13.7, and move the 4th para of 4.13.7 to the beginning of 4.13.6

5.6.7 QLogic-027: Accepted. pending Craig Carlson’s elaboration on 02-662v0.

5.6.8 Brocade-L10: Accepted. See wording in 02-161v9

5.6.9 QLogic-042: Accepted. See 02-501v1

5.6.10 Tivoli-104: Accepted. See wording in 02-161v9

5.6.11 Tivoli-106: Accepted. See wording in 02-161v9

5.6.12 Tivoli-107: Accepted. Revised from wording in 02-161v9, use “...errors may be commensurate...”.

5.6.13 Pirus-006: Accepted. In 5.5.1, third to last paragraph, delete last sentence; in second to last paragraph, delete last sentence; in last paragraph, delete “specified in other standards”.

5.6.14 QLogic-023: Accepted. The statement was modified to be restricted to “this standard”.

5.6.15 Pirus-012: Accepted. The relevant delimiters will be added to the paragraph describing each category.

5.6.16 FSI-060: Rejected. The END command (see 11.2.4.3.1) can either deactivate or remove a class 4 circuit, so the text at issue is correct.

5.6.17 Andiamo-039: Accepted. Change “Ownership” to “Knowledge of sequence context”.

5.6.18 Boeing-007: The suggested resolution was simplified to exclude the explanatory text, and “(class 4 only)” will be removed from the subclause header.

5.6.19 Andiamo-050: Accepted. Delete option a and make option b the extent of the subclause, because option a has nothing to do with ACK response. Also same fix in 11.2.3.3.2 and 11.2.3.4.3.36.

5.6.20 Exabyte-005: Accepted. The sentence introducing the list containing the item at issue should refer only to Fx_Ports. The next 3 paragraphs should be only Nx_Ports, not FC_Ports (see FC-PHx).

5.6.21 Inrange-023: Rejected. The text is correct, not contradictory, and not redundant. It relates to returning sequence initiative to the original owner, when ABTS is sent within an ongoing exchange.

5.6.22 Emulex-L05: Accepted. Also, review 01-498v2 to correct any other errors in incorporating it.

5.6.23 QLogic-053: Accepted. Extend the proposed fix to cover FLOGI as well.

5.6.24 IBM-028: Accepted last time, fixed by accepting John Scheible's proposal (see 02-195v4)

5.6.25 Boeing-018: Accepted. Remove an exception in a footnote.

5.6.26 Boeing-019: Accepted. Change Diffserv to "Differentiated Services". This is already described in 9.5.2.3 and 9.5.2.4, and crossreferenced from the text at 15.5.4.7.

5.6.27 Boeing-020: Accepted.

5.6.28 Boeing-023: Accepted.

5.6.29 Boeing-024: Accepted. See Boeing-019

5.6.30 Emulex-L06: Rejected. The text at issue is correct even if redundant.

5.6.31 Emulex-L07: Accepted.

5.6.32 Emulex-L08: Accepted.

5.6.33 Emulex-L09: Accepted.

5.6.34 Emulex-L10: Accepted.

5.6.35 Vixel-002: Accepted.

5.6.36 Tivoli-063: Accepted. Wording at issue changed to "is unable to determine" and change the "to the" to "that originated" in the next sentence.

5.6.37 Vixel-003: Accepted. Several other changes were made to the same paragraph to get rid of the link conditions, which all present thought irrelevant.

5.6.38 Vixel-004: Accepted. Same fix as Vixel-002. Also, same issue and fix as for Vixel-002 for the sixth paragraph of 16.2

5.6.39 IBM-030: Withdrawn. This is documented behavior.

5.6.40 IBM-032: Accepted. Also, for clarity, delete "those bits".

5.6.41 Exabyte-002: Accepted. Somewhat simpler wording was constructed for recipient. Also, delete the sentence that specifies end of open sequence for class 3, since it is covered by the general case in the first sentence of the same paragraph.

5.6.42 Exabyte-003: Rejected. Initiators are covered in the first paragraph of the same subclause.

5.6.43 Akara-010: Accepted. Change the title of 17.6.5.2 to add class 6.

5.6.44 Brocade-003: Accepted. Delete through “transparent to FC-2”. Also, in the second sentence, delete “The use of class 1” since class 1 is incorrect and “the use of” is awkward.

5.6.45 Agilent-003: Accepted. In the suggested fix, change “if” to “when”.

5.6.46 Agilent-004: Accepted. In the suggested fix, change “if” to “when”.

5.6.47 QLogic-056: Accepted. Also polish the English a little in what remains of the original FC-FS text.

5.6.48 IBM-035: Accepted sort of. Change the paragraph to a note, and change host to FC-4.

5.6.49 Tivoli-075: Accepted. The parenthetical statement will be changed to a nonnormative note

5.6.50 Tivoli-076: Accepted. The parenthetical statement will be changed to a nonnormative note

5.6.51 Tivoli-081: Rejected. The counters are specifically vague.

5.6.52 Andiamo-L90: Claudio presented a proposal to define the login parameters used for broadcast communication. There was extended discussion leading to new wording for the whole subclause defining Broadcast. As for several other things, it depends on the undefined concept of discarding a frame.

ACTION: Bob Nixon to propose a definition of “discard” on the T11.3 reflector and request discussion.

ACTION: Claudio DeSanti to publish the wording for Broadcast agreed at the FC-FS meeting November 7, 2002.

5.6.53 Boeing-026: Accepted and then some. The subclause on Moviecast contains no definitions and no normative statements. It will be removed unless a member of the community provides usable text.

ACTION: Bob Nixon to send a message on the T11.3 reflector advising of the intent to discard the subclause discussing moviecast.

5.6.54 Boeing-027: Accepted.

5.6.55 Emulex-003: Accepted.

5.6.56 IBM-L48: Accepted. Simpler wording was constructed to eliminate any hint of normative character.

5.6.57 IBM-L49: Accepted.

5.6.58 IBM-L50: Accepted.

5.6.59 Tivoli-092: Accepted. Duplicate of IBM-L50

5.6.60 Tivoli-093: Accepted. Duplicate of IBM-L48, -L49, -L50.

5.6.61 Tivoli-094: Accepted. The text at issue was made informative, not normative, because it is an informative annex.

5.6.62 Tivoli-096: Accepted. The text at issue was made informative, not normative, because it is an informative annex.

5.6.63 Tivoli-097: Accepted. The text at issue was made informative, not normative, because it is an informative annex.

5.6.64 Tivoli-102: Accepted. The text at issue was made informative, not normative, because it is an informative annex.

5.6.65 Tivoli-104: Accepted. The text at issue was made informative, not normative, because it is an informative annex.

5.6.66 Tivoli-106: Accepted. The text at issue was made informative, not normative, because it is an informative annex.

ACTION: John Scheible to send resolution for Tivoli-106 to Mike Foster for verification.

5.6.67 Tivoli-107: Accepted. See resolution to Tivoli-106.

5.6.68 Tivoli-109: Accepted. See resolution to Tivoli-106.

5.6.69 IBM-L85: Accepted. Revised text was prepared.

5.6.70 Tivoli-110: Accepted. Revised text was prepared.

5.6.71 IBM-L96: Accepted. See Tivoli-115.

5.6.72 IBM-L01: Accepted. See Tivoli-115.

5.6.73 IBM-L06: Accepted. See Tivoli-115.

5.6.74 Akara-012: Rejected. The material appears not to be faulty in the way described.

ACTION: Neil Wanamaker to identify more specifically what is at issue in Akara-012

5.6.75 QLogic-060: Accepted. See QLogic-042.

5.6.76 Vixel-005: Accepted.

5.6.77 Andiamo-069: Accepted. No changes were made to note 44.

5.6.78 QLogic-059: Rejected. The comment is based on a misunderstanding of “blocks” versus “frames”

5.6.79 FSI-047: Accepted. Fixed by 02-569v3.

5.6.80 IBM-L06: Accepted, See Tivoli-115

5.6.81 Tivoli-115: Accepted. Fixed by 02-398v1

5.6.82 Tivoli-116: Accepted. Fixed by 02-398v1

5.6.83 FSI-048: Rejected. No document provided.

5.6.84 FSI-061: Accepted in principle. No additional comments were provided, and all of them were accepted.

5.6.85 Vixel-015: Rejected. The references in FCP-2 were to a generic service interface, not a formal specification. The formal specification was removed because it was horribly out of date and no sufficiently redeeming value, or willing author, has been found.

5.6.86 Andiamo-020: Accepted. Delete the sentence.

5.6.87 Pirus-008: Accepted. Add "While in state LR1" at the start of 7.3.2.2, 7.3.2.3, and 7.3.2.5.

5.6.88 QLogic-026: Accepted.

5.6.89 FSI-054: Accepted.

5.6.90 Andiamo-085: Accepted. Restrict the last clause of the first paragraph to virtual N_Port IDs rather than simply N_Port IDs.

5.6.91 Pirus-009: Accepted. Extend the same fix as Pirus-008.

5.6.92 Vixel-023: Rejected. No specific issues were identified.

5.6.93 Missed resolutions: The group was on a roll, and the secretary believes he missed a few resolutions of formerly "Open" comments here.

5.6.94 Andiamo-089: Open

ACTION: Bill Martin to write text for 15.2.7 defining re-login and for 15.4.3 to remove the implicit logout for NOS/OLS if re-login.

5.6.95 Pirus-016: Open

ACTION: John Scheible to include discussion of 02-527v0 in next meeting.

5.6.96 FSI-056: Accepted.

5.6.97 Andiamo-046: Rejected. The Operation Associator is obsolete so is not defined here.

5.6.98 Inrange-025: Accepted. Delete the note.

5.6.99 Status at the end of the meeting: Technical 7 unresolved; Editorial 0 unresolved.

6 Review of FS action items

- 6.1 Craig Carlson to prepare a proposal for text concerning QLogic-044 to be inserted in the relevant tables.
(Opened 7/16/02) (CARRYOVER)
- 6.2 Dave Peterson to provide resolution for QLogic-012 (need to post 02-557v0)
(Opened 8/6/02) (CARRYOVER)
- 6.3 Craig Carlson to review the list of ELSs in QLogic-038.
(Opened 8/6/02) (CARRYOVER)
- 6.4 Craig Carlson to request feedback from SW group on meaning of "first" in Andiamo-057

- (opened 9/10/02) (CARRYOVER)
- 6.5 Bill Martin to bring FC-FS comment QLogic-051 to the attention of the FC-MI-2 work group.
(opened 10/8/02) (CARRYOVER)
- 6.6 Craig Carlson to publish detailed text to implement the alternatives from 02-662v0 agreed at the FC-FS meeting 5 November 2002.
(opened 11/5/02)
- 6.7 John Scheible to publish 02-569v3 from 02-569v2 and the agreements at the FC-FS meeting on 5 November 2002
(opened 11/5/02) (CLOSED by 02-569v3)
- 6.8 Bill Martin to publish the revised resolution for FSI-011 he presented at the FC-FS meeting 5 November 2002.
(opened 11/5/02)
- 6.9 Bob Nixon to propose a definition of "discard" on the T11.3 reflector and request discussion.
(opened 11/7/02)
- 6.10 Claudio DeSanti to publish the wording for Broadcast agreed at the FC-FS meeting November 7, 2002.
(opened 11/7/02)
- 6.11 Bob Nixon to send a message on the T11.3 reflector advising of the intent to discard the subclause discussing moviecast.
(opened 11/7/02)
- 6.12 John Scheible to send resolution for Tivoli-106 to Mike Foster for verification.
(opened 11/7/02)
- 6.13 Neil Wanamaker to identify more specifically what is at issue in Akara-012
(opened 11/7/02)
- 6.14 Bill Martin to write text for 15.2.7 defining re-login and for 15.4.3 to remove the implicit logout for NOS/OLS in the case of re-login.
(opened 11/7/02)
- 6.15 John Scheible to include discussion of 02-527v0 in next meeting agenda.
(opened 11/7/02)

7 Future meeting plans

We have 6 hours at the December T11 plenary week.

We will request 8 hours for an FC-FS editors' meeting during the January T10 plenary week.

8 Adjournment

The meeting was adjourned at 6:10 PM Thursday November 7.

9 Summary of Accepted Proposals

9.1 02-501v1: Revert REC to an ELS

9.2 02-569v3: Rewrite of clause 6 specifying receiver and transmitter states.

10 Attendance

Company Represented	Last Name	First Name	Email
Andiamo Systems	DeSanti	Claudio	cds@andiamo.com
Brocade	Martin	William R.	bmartin@brocade.com
Cisco Systems	Peterson	David	dap@cisco.com
Emulex	Nixon	Bob	bob.nixon@emulex.com
IBM	Scheible	John	jpscheible@aol.com
MTI	Ramos	Rich	rich@chi.mti.com
Nishan	Monia	Charles	cmonia@nishansystems.com
QLogic	Carlson	Craig	craig.carlson@qlogic.com