

Approved Minutes
T11.3 FC-FS Working Group Meeting
August 6, 2002 – Seattle, Washington
1 PM – 9 PM

Revision 1: In 5.5.19 and 6.15, corrected an editorial error by changing "Qlogic-038" to "Late-006", per meeting 10/8/02.

A meeting of working group FC-FS of INCITS Technical Committee T11 Task Group T11.3 was held at Seattle, Washington on August 6, 2002, in conjunction with the T11 Plenary Week meetings. Attendance at this meeting was 21 people from 18 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: John Scheible

Facilitator John Scheible opened the meeting at 1:00 PM Tuesday, August 6, 2002. He thanked our host companies, Vixel and Stratos Lightwave, and led a round of introductions.

John then indicated that among the rules and policies under which this working 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.

2. Call for changes to minutes

2.1 AL-2/FS report to T11.3 – 6/13/02 02-368v0 John Scheible

Approved as written.

2.2 FS minutes – 6/11/02 02-380v0 Bob Nixon

Approved as written.

2.3 FS minutes – 7/16/02 02-4140 Bob Nixon

Approved as written.

3. Approval of this agenda: 02-444v1 John Scheible

Approved as written.

4. Review of old action items: 02-444v1 John Scheible

- 4.1 Roger Rose to consult with Gary Stephens on how to extend the changes proposed in 02-282v0 to class 4 and with Steve Wilson (Boeing) for class 6.
(Opened 6/11/02) (CARRYOVER)

- 4.2 Roger Rose to publish a revision to 02-282v0 to incorporate changes agreed at the FC-FS meeting on 6/11/02, and class 4 and 6 support if possible.
(Opened 6/11/02) (CARRYOVER)
- 4.3 John Scheible to propose a clarifying rewrite of 6.1 and its subsections.
(Opened 6/11/02) (CARRYOVER)
- 4.4 Craig Carlson to propose a more complete resolution to Qlogic-027 than contained in the comment.
(Opened 6/11/02) (CARRYOVER)
- 4.5 John Scheible to update 02-195v2 to include the agreements at the meeting 7/16/02.
(Opened 7/16/02) (CLOSED by 02-195v3)
- 4.6 John Scheible to review the format specification of Data_Descriptor frames pursuant to resolving Vixel-016.
(Opened 7/16/02) (CLOSED by 02-445v0)
- 4.7 Claudio DeSanti to request from FC-SP a proposal for changes to specify a security header.
(Opened 7/16/02) (CARRYOVER)
- 4.8 John Scheible to assure discussion of categorization of REC/SRR at the next FC-FS meeting.
(Opened 7/16/02) (CLOSED by 02-444v1)
- 4.9 Craig Carlson to raise the issue of categorization of REC/SRR with John Lohmeyer.
(Opened 7/16/02) (CLOSED 7/16/02)
- 4.10 Bob Nixon to raise the issue of categorization of REC/SRR with T10/FCP-2.
(Opened 7/16/02) (CLOSED by D. Peterson, see T10/02-267r1)
- 4.11 Craig Carlson to prepare a proposal for text concerning Qlogic-044 to be inserted in the relevant tables.
(Opened 7/16/02) (CARRYOVER)
- 4.12 Bob Nixon to verify that the references associated with Emulex-001 are the latest.
(Opened 7/16/02) (CLOSED by email 7/31/02)
- 4.13 Bob Nixon to contact Dave Peterson to determine the latest release of 02-040.
(Opened 7/16/02) (CLOSED by email 7/31/02. Ref 02-384v0)
- 4.14 John Scheible to research origin of the LCLM ELS.
(Opened 7/16/02) (CLOSED – Added to FS rev .30 (7/20/00)
in accord with 00-056v1 by Bill Martin)

5. Scheduled Business

5.1 ELS Buffer Limitation Proposal 02-195v3 John Scheible

This is a followon from a prior presentation that attempted to resolve issues around the increased size of login and other ELSs. The proposal is to add

- an ELS to negotiate ELS buffering capabilities;
- common and per-class login bits indicating support for the ELS that negotiates ELS buffering capabilities;
- the assumption that the negotiated capabilities carry across logout/login if there are no changes in identity.

Some typos were pointed out and corrected.

It was moved by John Scheible and seconded by Bob Nixon to incorporate 02-195v3 with the typos corrected into FC-FS. Approved, a large number in favor to one opposed.

5.2 Resolution cmts on Annex I 02-262v2 Bob Nixon

Bob directed attention to a group of three documents with varying presentations of proposed changes to resolve all comments against FC-FS Annex I (Speed negotiation derivation) raised in the 2002 FC-FS letter ballot:

02-262v2: Tabulated Annex I comments with proposed resolutions

02-263v2: Markup of original Annex I annotating all proposed changes

02-398v1: Revised text for Annex I with changes incorporated

The changes are widespread but do not affect the technical content (apart from rewording to avoid normative statements).

He confirmed that the commenter had approved the revised text.

It was moved by Bob Nixon and seconded by John Scheible to incorporate 02-398v1 as resolution to the Annex I issues listed in 02-262v2.

5.3 Data Descriptor resolution 02-445v0 John Scheible

One category of FC frame is "data descriptor". There was an issue raised that the format of this frame category was deleted from FC-FS, but it is referenced from FCP-2. John proposes putting the table defining "data descriptor" back into FC-FS. This was accepted as resolution of Vixel-016.

5.4 REC/SRR categorization discussion nodoc John Scheible

T10 believes it would be consistent to all known implementations that the REC FC-4 Link Service revert to an ELS and SRR remain an FC-4 Link Service, and recommends that action to FC-FS.

ACTION Bob Nixon to write text changes for FC-FS to revert the REC FC-4 Link Service to an ELS.

ACTION Bob Nixon to write email to the T10 and T11.3 of the intention to revert the REC FC-4 Link Service to an ELS.

5.5 FC-FS Problem Compilation 02-161v5 John Scheible

02-161v5 shows the status and resolution (if agreed) to all comments received in the T11 letter ballot held in February-March 2002, and in addition, any accepted into consideration subsequently in accord with 02-229v1.

John led the group in continuing resolution of the technical issues:

5.5.1 Qlogic-047

Accepted. The author of the text in question (Bill Martin) said the portion of the first sentence making the terms at issue (describing when to respond) could be stricken entirely. The second incidence (reasons for a specific reject code) can simply condition on whether the requested data is not available for any reason, rather than by use of the terms at issue.

5.5.2 Vixel-016

Accepted See 5.3.

5.5.3 Qlogic-042

Accepted in principle. See 5.4.

5.5.4 Qlogic-010

Accepted. Bill Martin provided clearer definitions of remote and local Fx_Ports.

ACTION Bill Martin to publish his proposed resolution to Qlogic-010.

5.5.5 Qlogic-012

Open.

ACTION Dave Peterson to provide resolution for Qlogic-012

5.5.6 FSI-011

Open.

ACTION Gary Stephens to provide resolution for FSI-011

5.5.7 FSI-016

Open.

ACTION Gary Stephens to provide clarification on the comment for FSI-016

5.5.8 Andiamo-023

Open, the text in question is correct, but will be clarified by an action (see 6.3) already undertaken by John Scheible.

5.5.9 Qlogic-027

Open pending an action (see 6.4) by Craig Carlson.

5.5.10 FSI-057

Open pending an action (see 6.4) by Craig Carlson.

5.5.11 Andiamo-044

Open pending an action (see 6.7) by Claudio DeSanti.

5.5.12 Late-007

Open

Action John Scheible to review background for Late-007.

5.5.13 Qlogic-040

Accepted in principle. Approved the resolution determined at the July meeting.

5.5.14 Qlogic-044

Open pending an action (see 6.6) by Craig Carlson.

5.5.15 Exabyte-008

Accepted. Note also in FC-FS 9.2.2, a reference to Sequence Initiator should be (was in FC-PH) Exchange Originator

Action Bob Nixon to post text corrections for review in accord with the Exabyte-008 recommendation.

5.5.16 Pirus-016

Rejected. Preemption by class 2 or 3 frames is in use in shipping products. Its meaning is not defined in FC-FS 9.5.3.3 for class 2 and 3, but FC-FS 20.1.3 legitimizes class 2/3 preemption frames, and gives some more hints on behavior.

Agreed to include some additional clarification on usage of class 2/3 preemption frames.

ACTION Mike Foster to propose clarification on proper preemption behavior in FC-FS 9.5.3.3 and FC-FS 20.1.3.

5.5.17 Pirus-026

Accepted.

5.5.18 Vixel-001

Rejected. The FC-FS standard is intentionally more flexible than the FC-PLDA profile here.

5.5.19 Late-006

Accepted. The 2 issues identified appear to be flaws in FCP-2, not FS: FCP does not respond to the ABTS, and FCP blows away any other FC-4 by following with LOGO.

ACTION: Dave Peterson to bring the issues of Late-006 to the attention of T10

5.5.20 Qlogic-038

Open.

ACTION Craig Carlson to review the list of ELSs in Qlogic-038

5.5.21 Qlogic-039

Accepted in principle. A normative clarification will be added that the table applies to all Nx_Port addresses including well known addresses.

5.5.22 IBM-039

Accepted. See 5.1.

5.5.23 Vixel-021

Accepted. A somewhat different resolution was worded, to use either the OX_ID or the RX_ID.

5.5.24 Tivoli-034

Accepted

5.5.25 Tivoli-035

Accepted.

5.5.26 Qlogic-049

Rejected, not all fabrics have a name server.

5.6 FC-4 vs. ULP**02-tbdv0****Dave Peterson**

Dave has taken on normalizing the use of the terms "ULP" and "FC-4". The basic assumption is that an FC-4 is a mapping of a ULP (Upper Layer Protocol) onto FC-2. An Upper Layer Protocol is not FC-specific. He introduced us to every reference to "FC-4" and a good start at "ULP" in FC-FS. He raised issues with many of them, and recorded the will of the group (or, in at least one case, the flip of a coin) on each.

6. Open action items

- 6.1 Roger Rose to consult with Gary Stephens on how to extend the changes proposed in 02-282v0 to class 4 and with Mike Foster or Mike Dorsett (Boeing) for class 6.

(Opened 6/11/02) (CARRYOVER)

(In accord with a later email request from Boeing, the contact information was changed from "Steve Wilson (Boeing)" to "Mike Foster or Mike Dorsett (Boeing)" - secretary)

- 6.2 Roger Rose to publish a revision to 02-282v0 to incorporate changes agreed at the FC-FS meeting on 6/11/02, and class 4 and 6 support if possible.

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- 6.3 John Scheible to propose a clarifying rewrite of 6.1 and its subsections.

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- 6.7 Bob Nixon to write text changes for FC-FS to revert the REC FC-4 Link Service to an ELS.

(Opened 8/6/02)

- 6.8 Bob Nixon to write email to the T10 and T11.3 of the intention to revert the REC FC-4 Link Service to an ELS.

(Opened 8/6/02)

- 6.9 Bill Martin to publish his proposed resolution to Qlogic-010.
(Opened 8/6/02)
- 6.10 Dave Peterson to provide resolution for Qlogic-012
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- 6.11 Gary Stephens to provide resolution for FSI-011
(Opened 8/6/02)
- 6.12 Gary Stephens to provide clarification on the comment for FSI-016
(Opened 8/6/02)
- 6.13 Bob Nixon to post text corrections for review in accord with the Exabyte-008
recommendation
(Opened 8/6/02)
- 6.14 Mike Foster to propose clarification on proper preemption behavior in FC-FS 9.5.3.3 and
FC-FS 20.1.3.
(Opened 8/6/02)
- 6.15 Dave Peterson to bring the issues of Late-006 to the attention of T10.
(Opened 8/6/02)
- 6.16 Craig Carlson to review the list of ELSs in Qlogic-038.
(Opened 8/6/02)

7. Future meeting plans

Request 8 hours at the September T10 plenary week.

Request as much time as possible at the October T11 plenary week.

Request 8 hours at the November T10 plenary week.

8. Adjournment (FS WG)

The meeting was adjourned at 6:32 PM Tuesday August 6, 2002.

9. Attendance

Company Represented	Last Name	First Name	Email
Agilent Tech	Ayalasomayajula	Narayan	narayan_ayalasomayajula@agilent.com
Akara	Wanamaker	Neil	nwanamaker@akara.com
Boeing	Stout	Lyndell	lyndell.a.stout@boeing.com
Brocade	Martin	William R.	bmartin@brocade.com
DDC	Gelish	Joseph	gelish@ddc-web
Emulex	Nixon	Bob	bob.nixon@emulex.com
ENDL Texas	Weber	Ralph	roweber@acm.org
HP	Hamel	Mark	mark.w.hamel@hp.com
HP	Lane	Dana	dana.lane@hp.com
IBM	Scheible	John	jpscheible@aol.com
IBM - Tivoli	Penokie	George	gop@us.ibm.com
Inrange Technology	Koellner	Greg	gregory.koeller@inrange.com
JNI	Colpaart	Dirk	dcolpaart@jni.com
LSI Logic	Lohmeyer	John	lohmeyer@t10.org
McData	Kipp	Scott	scott.kipp@mcddata.com
Nishan	Monia	Charles	cmonia@nishansystems.com
Seagate	Coomes	James	jim_coomes@seagate.com
Seagate	Suhler	Paul	paul_a_suhler@seagate.com
StorageTek	Gaffney	Matt	matt_gaffney@stortek.com
True Focus	Trustedt	Horst	hotrues@attglobal.net
Vixel	White	Gus	gwhite@vixel.com