

Approved Minutes – AL-3/FC-FS Working Group Meeting Aug 08, 2000 – Seattle, WA 9 AM - 6 PM

A joint ad hoc meeting of working groups FC-FS and FC-AL-3 of NCITS Technical Committee T11 Task Group T11.3 was held at Seattle, Washington on August 8, 2000, in conjunction with the plenary meeting of the ANSI/NCITS T11 Technical Committee.

1. Opening remarks and introductions - John Scheible

John Scheible, IBM, called the meeting to order at 9:01 am, thanked our host company, Vixel, and led a round of introductions.

2. Call for changes to minutes

2.1 FC-AL-3 minutes - 06/06/00 (00-373v0) - John Scheible

Approved with no changes.

2.2 AL-3 report to T11.3 - 06/06/00 (00-371v0) - John Scheible

Noted.

2.3 FC-FS minutes - 06/06/00 (00-399v1) - Bob Nixon

Approved with no changes.

2.4 FC-FS minutes - 07/11/00 (00-435v0) - Bob Nixon

Approved with no changes.

2.5 FS report to T11.3 - 06/06/00 (00-372v0) - John Scheible

Noted.

3. Approval of this agenda (00-466v1) - John Scheible

Approved with the following amendments:

3.1 Added RTIN comments (458v1) by Bob Snively to Unscheduled Business.

3.2 Added RSCN (415v0) by Bob Snively to Unscheduled Business.

4. Review of old AL-3/FS action items - John Scheible

4.1 AL-3 Action Items

4.1.1 Horst Truedstedt will write a proposal to show how a second FL_Port or a new FL_Port will be detected so that an F/NL_Port can retire from its fabric functions. Carryover.

4.1.2 Upload Horst Truedstedt proposal presented at the meeting (When an FL_Port detected, how does F/NL Port retire?) Carryover.

4.1.3 Upload Bob Snively proposal presented at the meeting (Treatment of Old Port state?)
CLOSED.

4.2 FS Action Items

4.2.1 Bob Kembel to update his proposal FC Link Services and Login States. CARRYOVER (2/00).

4.2.2 Bob Kembel to specify the reason codes for login reject. CARRYOVER (2/00).

4.2.3 Jim Nelson to put the approved changes into FS as presented (2nd table in 00-185v2) and remove the MCM capable login bit that was added in FC-FS 0.10. CLOSED.

4.2.4 Bob Kembel to update clause 15 - Link Services. CARRYOVER (6/00).

4.2.5 Steve Wilson (Brocade) to provide the editor with clarifications to class 4 - 2 weeks. Partial CARRYOVER (6/00).

4.2.6 Bill Hamm to rewrite goal 18 in Speed Negotiation (T11-00-426v0) pursuant to discussion 7/11/00. CLOSED.

4.2.7 Charles Binford to update T11-00-361v0 to be presented at the August meeting. CLOSED.

4.2.8 Mike O'Donnell and Bob Snively will resolve and bring the RSCN changes proposal (based on T11-00-415v0) back next meeting. CLOSED.

5. Old FS Business

5.1 FC-FS approved schedule (00-345v1) - John Scheible

No changes at this time.

6. Scheduled New Business AL-3/FS

6.1 FC-AL-2 ERR_INIT problem (00-474v0) - Bill Martin

This problem was discovered at UNH testing: A mix of Error-Init capable and Error-Init incapable devices can hang in initialization. It was discussed informally last meeting, and is now written up.

Two alternative fixes were proposed, either of which would be sufficient:

- Wait 4 AL-Times instead of 2 AL-Times (this is a technique that was designed for the old-port discovery);
- or wait 2 AL-times plus then must see any lip in one of F2 state

It was agreed we should pursue the second alternative.

Need feasibility input from silicon-dependent folks before the next meeting.

ACTION: Bill Martin to recast T11-00-474v0 as a "FC-AL-2 defect report".

ACTION: Bill Martin to prepare a proposed amendment to FC-AL-2 to correct the defect reported by T11-00-474v0.

6.2 Old Port State (00-418v0) - Bob Snively

The situation in question is that two devices capable of either loop or oldport mode connected point-to-point will use loop mode, although oldport mode is more efficient. The proposal would allow a port to attempt reinitializing in oldport mode immediately on discovery that it resides in a loop of only two ports. UNH tests now prohibit this until the port has reached "monitoring" state.

The proposal does not invalidate the current behavior, only allows a new one (a single port can drive this).

ACTION: Bob Snively to complete T11-00-418v0 including state machine diagrams and referencing the relevant UNH tests, assuring that it is obvious this is an option, not a requirement.

6.3 Distributed Link Incident Reports (00-464v0) - Scott Kipp

Scott Kipp summarized a presentation made to SW-2 yesterday having to do with distributed LIRR. (00-463v0).

Charles Binford previewed part of his scheduled presentation (461v1) to see if it resolved Scott's issue: Summary (as best the secretary could follow): Charles proposed a means to allow sending DF-type FC-4 RLIRs to all rather than only to single registered recipient selected at the discretion of the sender. Each FC-4 can select whether old (single) or new (multiple) behavior is preferred.

Michael Hoard suggested that rather than the new behavior being FC-4 specific, a bit be added to the registration request.

Mike O'Donnell requested time for switch vendors to analyze how to distribute the reports.

Scott said this did not directly relate to his issue. He was looking for direction from FS as to whether to use CT or ELS for interswitch distribution of RLIR and RSCN information. Bob Snively proposed to use ELS to keep it all at the same layer. The meeting concurred by lack of objection.

ACTION: Kipp/Binford to have a conference call to resolve changes for interswitch distribution of LIRR and RSCN.

6.4 FS changes from FCP-2 review (00-284v4) - Bob Snively

Bob Snively presented latest FCP-2 requests for changes to FS.

Request 7 would add a list of known FC-4 Link Services by reference to their controlling documents.

Bob Snively moved to include request 7 in FS. Bob Nixon seconded. Passed without objection.

ACTION Bob Snively to provide the list of FC4 LS references to include in FS.

Request 8 would recognize REC as an FC-4 Link Service.

Bob Snively moved to include request 8 in FS. Jim Nelson seconded. An alternative was presented which does not change REC but allows FC-4 specific payload. Consideration of the

motion was deferred until after lunch for additional discussion. On later discussion, the motion was withdrawn with the intention that either alternative or no change was acceptable, as needed by FCP-2.

ACTION Bob Snively to modify as needed the text of FS regarding REC to allow the usage intended by FCP2.

Request 9 would unambiguously define circumstances when an FC-4 may use the Parameter field of a frame header. To do this, it would change the definition of "Data Frame" and several references to it.

Discussion of request 9 raised several issues. It was requested that its redefinition of "Data Frame" refer to and/ or be consistent with table 34, which is quite specific. There was concern about the limitation to single frame sequences for frames that are not Data Frames, but no specific request for change. Because of the general complexity of the proposal and lack of widespread review, further discussion was deferred until a later meeting.

ACTION: All interested parties especially FCP-2 to review this including redefinition of a data frame and establish an opinion.

Request 10 would explicitly allow FC-4 Link Services modify the state of other exchanges including initiative and abort.

Bob Snively moved to include request 10 in FS. Neil Wanamaker seconded. It was approved (6 yes, 3 no, 15 abstentions).

6.5 FS technical review comments (00-456v1 amended) - John Scheible

This discussion was in fact deferred until later in the meeting, but is reported here for consistency with the agenda.

The editor reported that he had already resolved all editorial comments. Discussion ensued for the technical comments. Their statuses are tabulated below by reference to their identifying numbers in document 00-456v1.

JS001 Closed as suggested.

JS002 John Scheible to discuss with Jeff Stai

JS003 Closed by clearer copy of the diagram.

JS004 Closed.

JS005 Closed as suggested.

JS006-JS010 reflect open actions already in the FS action list.

JS011-JS012 reflect ongoing but incomplete work in this group.

JS013-JS015 reflect an open Steve Wilson action

GC001 Resolved as follows:

ACTION: Mike O'Donnell to document LS-RJT with reason code Protocol Error as proper response if RTIN Request Payload Maximum Size field has value x'ffff'.

GC002 Resolved as follows:

ACTION: Mike O'Donnell to change " Port ID" to "Address Identifier of the Node" in RTIN ACCEPT Payload Connectivity Unit Record and in table 132.

RTIN ACCEPT Payload Connectivity Unit Record Port ID

GC003 reflects an action item for Bob Kembel.

RW001 Tables 11 and 12 will both be replaced by the statement "The [type] payload is FC-4 dependent."

RW002 Change as suggested (make them ELS-unique).

7. Unscheduled new AL-3/FS business

7.1 Update-Link Incident Reporting (00-361v1) - Charles Binford

Charles Binford presented an update to his proposal to revise RLIR description in order to provide a useful default LIRR format. He explained some of the changes made in response to review of the prior revision.

The following further changes were requested:

7.1.1 Change all "node" references to "port" references.

7.1.2 Replace the type-dependent option of distributing LIRRs to all registrants to an registration (RLIR) option so that each registrant may request unconditional distribution for itself.

7.1.3 Fix a typo on the table of type assignments re range of specific-coded values.

7.1.4 George Penokie may provide an alternate statement of the concept of port reset. If Charles likes it, he will use it.

7.1.5 Rename the "vendor specific" time-stamp format to indicate its required behavior, since it is not completely vendor-specific.

7.1.6 Allow 8 bytes for time stamp. The needs (resolution, timeserver consistency) were both a little nebulous, but the cost was low.

7.1.7 Add a time stamp format code for clock synchronization ELS format.

ACTION: Charles Binford to update 361v1 to incorporate changes requested at this meeting.

7.2 RTIN technical comments (00-458v1) - Bob Snively

This was deferred to the discussion of FS technical review comments.

7.3 RSCN (00-415v0) - Bob Snively

Bob Snively presented enhancements to documentation and functionality of RSCN.

It was claimed that the changes would not induce backward compatibility problems.

The "guts of it" is a new "Event Qualifier" field, overlaying a "must be zero" part of the old event page. The zero value is reserved for backward compatibility. New values allow categorization but not selective registration.

Changes to the proposal were requested:

7.3.1 Reassign the event qualifier values to renumber the current event qualifiers contiguously.

7.3.2 Remove "Changed Fabric Name" event qualifier.

7.3.3 Delete the sentence in FS which allows an N-port to issue RSCNs to the fabric without the fabric having registered with the port.

Bob Snively moved to accept T11-00-415v0 as amended above. Dave Peterson seconded. It was approved (6 yes, 0 no, 17 abstentions).

ACTION: Bob Snively to update 00-415v0 to incorporate the changes requested at this meeting.

7.4 Ambiguity of the acronym "SCR" - Bill Martin

Bill Martin observed that the acronym "SCR" stands for both the old "Stacked Connection Request" and the new "State Change Registration". After some discussion, the widespread use of the new definition won the use of the name.

ACTION: Jim Nelson to note in the acronym glossary that the old usage of SCR is obsolete and it is now used for "State Change Registration". Elsewhere all reference to "Stacked Connection Request" will be spelled out.

8. Review of AL-3/FS action items

8.1 AL-3 Action Items

8.1.1 Horst Truedstedt will write a proposal to show how a second FL_Port or a new FL_Port will be detected so that an F/NL_Port can retire from its fabric functions. CARRYOVER.

8.1.2 Upload Horst Truedstedt proposal presented at the meeting (When an FL_Port detected, how does F/NL Port retire?) CARRYOVER.

8.1.3 Bill Martin to recast T11-00-474v0 as a "FC-AL-2 defect report". NEW (00/08).

8.1.4 Bill Martin to prepare a proposed amendment to FC-AL-2 to correct the defect reported by T11-00-474v0. NEW (00/08).

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8.2.1 Bob Kembel to update his proposal FC Link Services and Login States. CARRYOVER (2/00).

8.2.2 Bob Kembel to specify the reason codes for login reject. CARRYOVER (2/00).

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8.2.4 Steve Wilson (Brocade) to provide the editor with clarifications to class 4 - 2 weeks. Partial CARRYOVER (6/00).

8.2.5 Bob Snively to complete T11-00-418v0 including state machine diagrams and referencing the relevant UNH tests, assuring that it is obvious this is an option, not a requirement. NEW (00/08).

8.2.6 Scott Kipp and Charles Binford to have a conference call to resolve changes for interswitch distribution of LIRR and RSCN. NEW (00/08).

8.2.7 Bob Snively to provide the list of FC4 LS references to include in FS. NEW (00/08).

8.2.8 Bob Snively to modify as needed the text of FS regarding REC to allow the usage intended by FCP2. NEW (00/08).

8.2.9 All interested parties especially FCP-2 to review T11-00-284v4 request 9 including its redefinition of a data frame and establish an opinion. NEW (00/08).

8.2.10 Charles Binford to update T11-00-361v1 to incorporate changes requested at the FC-FS ad hoc meeting on August 8, 2000. NEW (00/08).

8.2.11 Bob Snively to update 00-415v0 to incorporate the changes requested at the FC-FS ad hoc meeting on August 8, 2000. NEW (00/08).

8.2.12 Mike O'Donnell to document LS-RJT with reason code Protocol Error as proper response if RTIN Request Payload Maximum Size field has value x'ffff'. NEW (00/08).

8.2.13 Mike O'Donnell to change " Port ID" to "Address Identifier of the Node" in RTIN ACCEPT Payload Connectivity Unit Record and in table 132. NEW (00/08).

8.2.14 Jim Nelson to note in the acronym glossary that the old usage of SCR is obsolete and it is now used for "State Change Registration". Elsewhere all reference to "Stacked Connection Request" will be spelled out. . NEW (00/08).

9. Future meeting plans

Time will be requested during the next T10 plenary meeting, on Tuesday September 12, 2000. The usual time will be requested during the next T11 plenary meeting, on Tuesday October 3, 2000.

10. Adjournment (FC-AL-3/FS WG)

This meeting adjourned at 3:45 PM.

11. Requesting corrections

Please notify Bob Nixon at bob.nixon@emulex.com of any corrections that are needed to the minutes.

12. Attendance at this meeting

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