

FC-AV Approved Meeting Minutes
Seattle, WA
08 August 2000

1. Attendees:

Name	Company	Email Address
Dal Allan	ENDL	endlcom@acm.org
Jack Keller	Boeing-STL	jack.e.keller@boeing.com
Jing Kwok	DY4 Systems Inc.	jkwok@dy4.com
Kumar Malavalli	Brocade	kumar@brocade.com
John Schroeder	Smiths Industries	schroeder_john@si.com
Horst Truedtedt	True Focus	hotrues@attglobal.net
Steve H Wilson	Boeing	steven.h.wilson@boeing.com
Steve L Wilson	Brocade	swilson@brocade.com
Fred VanRoessel	Panasonic	VanRoesselF@panasonic.com

2. Jack Keller opened the meeting with diskette distribution and attendance list.

3. The following agenda was presented:

- Review and approval of draft minutes from 5 June 2000 FC-AV meeting.
- Status of old action items.
- Detailed review of Clause 7 - Frame Header Control Protocol (FCHP)
- Review of Clause 8 - Simple Streaming Protocol (SSP)
- Review of Annex F - Video Frame Rate Table Structure
- General Draft Status
- New Action Item Assignments

4. Minutes from the 5 June meeting were approved with the following edit:

- In Item #10, the tenth bullet change Table 3 to Figure 3

5. Status of old action items:

- Reorganize Specification with Clause 7 as Direct Mapping Protocol. – Truedtedt
STATUS: Done, Horst will walk us through changes in review
- Reorganize Specification with Clause 8 as Simple Streaming Protocol.. – Truedtedt
STATUS: Done, Horst will walk us through changes in review
- direct mapping protocol to be provided to Horst for inclusion in specification. – Keller
STATUS: Not Done

- Provide SPDV documentation to Horst for inclusion in specification –Keller
STATUS: Provided to Horst but not posted to web site
 - Post the FC-AV document with above info on web site for early review-Trustedt
STATUS: Not Done
 - Contact Tom Montgomery of Miranda on status of Full Parametric Digital Video.- Keller
STATUS: Done, Full Parametric digital Video is to be deferred to FC-AV2
 - Obtain Bob Snively review comments on Simple Streaming Protocol and the FCP mapping and incorporate into standard. – Trustedt
STATUS: Done
 - YIQ definition reference to be incorporated into SPDV. – Keller
STATUS: Not Done, Keller wishes to refer to SMPTE 170
 - Figure 3 (Object Table Hierarchy) to be found and included in specification. – Trustedt/Carlson
STATUS: Done
 - Frame Rate Table Generation. Keller
STATUS: Done, to be incorporated into document.
 - Post “final” draft FC-AV document to web site no later than July 24. – Trustedt
STATUS: Not Done, Still in work.
6. Jack Keller presented the Annex F frame rate table. Jack stated Annex F is not intended to force the encoding of the frame rate table and resulted in the inclusion of the “may not comply” statement. Lack of a definition for “Segmented” resulted in recognizing a lack of completeness in the Interlaced Scanning definition. John Schroeder and Fred VanRossel agreed to get together on generating definitions. Further discussion resulted in Annex F being basically rewritten. Jack and Horst stated they would be together in St Louis and will scrub the rewritten Annex F.
 7. Jack Keller went on to present Frame Header Control Protocol, FHCP, previously discussed as Direct Mapping Protocol. He stated FHCP works without an ULP or acts as a very thin FC-4 layer, is constantly in play mode, transmits data in a raw fashion and requires no response from the sink node.
 8. Horst presented the new FC-AV document structure and gave a general draft status. There is more work to be done. Jack and Horst will be together in St Louis in early September and will work the document for version 1.4 release. A target date of Sept 9 was set. It was agreed by acclamation that the resulting FC-AV rev 1.4 should then have a letter ballot issued by the T11.3 chair.
 9. Steve L Wilson presented the attached draft SD3 for FC-AV 2 project proposal. The draft SD3 is to be presented to T11.3 at the plenary.
 10. Action Items were assigned as follows:
 1. Provide new definition for interlaced and a segmented definition to Horst. Schroeder/ VanRoessel
 2. Edit and review AV spec. Horst/Keller
 3. Post a review AV rev1.4 spec by sept 9th. Horst
 4. Request Letter Ballot on rev1.4 at T11.3 Plenary Wilson/Malavalli

Respectfully submitted,

John Schroeder, FC-AV

Attachment 1, Draft SD3 for FC-AV-2

FC-AV-2 PROJECT PROPOSAL

1. Source of the Proposed Project

1.1 Title: Fibre Channel Audio Visual - Generation 2

1.2 Date: August 10, 2000

1.3 Proposer: Technical Committee T11, 69 members also NCITS members

2. Process Description for the Proposed Project

2.1 Project Type: D - Development within NCITS T11

2.2 Type of Document: Standard

2.3 Definitions of Concepts and Special Terms

2.4 Expected Relationship with Approved Reference Models, Frameworks, Architectures, etc.

All Fibre Channel standards are intended for use in closed systems.

2.5 Recommended NCITS Development Technical Committee: T11

2.6 Anticipated Frequency and Duration of Meetings

Technical Committee T11 meets bimonthly. Specific ad hoc groups are called as may be required for one to three days between the regular meetings but their results are not binding.

2.7 Target Date for Initial Public Review (Milestone 4): December 2001

2.8 Estimated Useful Life of Standard or Technical Report

It is anticipated that this standard will have a life of 10 years.

3. Business Case for Developing the Proposed Standard or Technical Report

3.1 Description

FC-AV-2 defines the mechanisms, services, and protocols to transport audio-visual information using Fibre Channel. In addition, FC-AV-2 will leverage the mechanisms defined in FC-AV and extend their use to emerging content distribution environments. FC-AV-2 will also exploit Fibre Channel features such as Quality of Service (QOS) and the Virtual Interface (VI).

3.2 Existing Practice and the Need for a Standard

The Fibre Channel Audio-Visual (FC-AV) standard describes how Fibre Channel networks may be used in audio-visual environments. The standard defines an AV container system, a transport protocol for compressed AV streams over Fibre Channel, and a simple streaming protocol for limited environments such as post production.

There is a need to enhance the mechanisms and protocols defined in FC-AV to enable content distribution on a wide scale. This standard will provide additional mappings of existing AV protocols to provide robust and finer control for bandwidth reservation to support multiple real time streams which are needed to support expanding applications in the area of content distribution using Fibre Channel networks. New environments such as broadcast will be supported as well as other transport mechanisms to carry audio-video streams.

3.3 Implementation Impacts of the Proposed Standard

3.3.1 Development Costs

This Standard will be developed through the voluntary and cooperative efforts of T11 Technical Committee members. No significant development costs are anticipated.

3.3.2 Impact on Existing or Potential Markets

The proposed Standard will provide an upward growth path that complements and enhances existing supplier products and support schemes. The proposed Standard will result in expanded applications for existing and conceived products in both the channel and network markets. It is likely that isolated adverse effects would occur in any case through non-standard evolution or revolution.

3.3.3 Costs and Methods for Conformity Assessment

The committee will consider the results of FC-AV-2 testing as may be available to the committee through the voluntary efforts of the various participants in T11. With this method all costs are borne by the organizations of the various participants and have for the most part been mainly an adjunct of their normal development costs.

3.3.4 Return on Investment

The return on investment for this development is expected to be high, due to the commonality of effort directed to a singular method of providing the services covered by the proposed Standard.

3.4 Legal Considerations

3.4.1 Patent Assertions

Calls will be made to identify assertions of patent rights in accordance with the relevant NCITS, ANSI and ISO/IEC policies and procedures. T11 is not aware of any patent assertions that may be made.

3.4.2 Dissemination of the Standard or Technical Report

Drafts of this document will be disseminated electronically. The Standard will be disseminated in accordance with [ANSI and NCITS](#) procedures.

4. Related Standards Activities

4.1 Existing Standards

- (1) X3.230-1994, Fibre Channel Physical and Signaling Interface (FC-PH).
- (2) X3.297-1997, Fibre Channel Physical and Signaling Interface - 2 (FC-PH-2).
- (3) NCITS.303-1998, Fibre Channel Physical and Signaling Interface - 3 (FC-PH-3).
- 4) Fibre Channel Switch Fabric (FC-SW)
- 5) Fibre Channel Fabric Generic (FC-FG)
- 6) Fibre Channel Generic Services - Second Generation (FC-GS2)

4.2 Related Standards Activity

Fibre Channel Switch Fabric - Second Generation (FC-SW2)

Fibre Channel Framing and Signaling (FC-FS)

Fibre Channel Generic Services - Third Generation (FC-GS3)

Fibre Channel Virtual Interface - (FC-VI)

Fibre Channel Audio Visual - (FC-AV)

4.3 Recommendations for Coordinating Liaison

None

4.4 Recommendations for Close Liaison

SMPTE