

Minutes: ATSC Applications Subcommittee

8 June 2004, 10:00 a.m. until 4:00 p.m. EDT
PBS, 1320 Braddock Place, Alexandria, VA

1. WELCOME AND ROLL-CALL

Chairman Sterling Davis (Cox Broadcasting) called the meeting to order at 10:00 a.m. at the headquarters of the Public Broadcasting Service in Alexandria, VA. He thanked PBS and Ed Williams (PBS) for hosting today's meeting. He asked the participants to identify themselves. The attendance list is given in **Attachment 1**.

2. APPROVAL OF DRAFT AGENDA

Chairman Davis asked for consideration of the draft agenda, which was posted to the AS reflector on June 1 (**Attachment 2**). He suggested that Item #12 be moved up to occur after Item #7. This change was accepted by the committee. No additional changes were requested and the draft agenda was accepted as amended.

3. APPROVAL OF DRAFT MINUTES OF 31 MARCH 2004

Chairman Davis asked for consideration of the draft Minutes of the March 31 meeting, posted to the AS reflector on May 17 (AS-059, **Attachment 3**). Jerry Whitaker (ATSC) reported that an editorial clarification had been suggested by Mike Dolan (TBT) and accepted by Chairman Davis and Secretary Whitaker. He added that an action item had been left off the Action Items summary page, although it is properly recorded in the body of the Minutes text. Mr. Whitaker said these changes were all editorial in nature and that they would be included in the final version of the Minutes. No further changes were requested and the document was accepted as modified.

4. REVIEW OF ACTION ITEMS FROM THE LAST MEETING

The following action items were developed at the March 31 meeting of the Application Subcommittee. Bracketed dates indicate items carried forward from a previous meeting [date].

- 1) Kelly Williams to contact Skip Pizzi of the TV Anytime Forum to explore liaison with regard to PVR digital program insertion work currently underway in AS. Mr. Williams to invite Mr. Pizzi to prepare a presentation to AS on the work of TV Anytime. [12-09-2003]

Carried forward.

- 2) Steve Smith to inquire whether WRAL might be interested in participating in the AHG formed to develop a draft White Paper on ACAP. [02-18-2004]

Carried forward.

- 3) The AHG on Roadmap to Products and Services (consisting of Craig Tanner, John Henderson, Lynn Claudy, and Ed Caleca) to develop program details and to move forward to the extent possible via the AS reflector on expanding upon the AHG's initial document (AS-054) and to develop plans for a 1 to 2 day AS session on "roadmap" issues.

Completed. A draft program was posted by to the AS reflector on June 2 (**Attachment 4**).

- 4) AS members to forward to Mark Richer suggested names of potential attendees and speakers for the planned 1- to 2-day AS session on "roadmap" issues.

On going.

- 5) Kelly Williams to update AS-028r10 based on input from the March 31 meeting and to post a clean, final version to the AS reflector.

Completed. The final version of the document was posted to the AS reflector on April 6 (**Attachment 5**). Following the usual procedure, this document was then reformatted to standard ATSC style by Mr. Whitaker for presentation to the Board of Directors; see **Attachment 6**.

- 6) Chairman Davis to present the final version AS-028 to the Board at its next meeting for consideration as an Applications Subcommittee White Paper.

Completed. The final output document (**Attachment 6**) was posted to the Board reflector on May 17. The Board will consider the AS request at its July 1 meeting.

- 7) Chairman Davis to resend his liaison correspondence relating to use of advanced codecs to T3 Chair Ralph Justus and T3/S6 Chair William Miller, and to bring the issue up at the next T3 meeting under "AS Liaison."

Completed. The correspondence was delivered prior to the April 2 T3 meeting. Following some discussion, the following T3 action items resulted:

William Miller and T3/S6 to consider the AS correspondence relating to advanced codecs in the main stream and to report back to T3 at the next meeting.

Mark Eyer and T3/S8 to consider the AS statement relating to advanced codecs in the main stream and to report back at the next T3 meeting.

- 8) An AHG consisting of Bob Rast, Tom Hankinson, and other interested AS members to consider the outcome of the T3 discussion relating to the use of advanced codecs and to prepare a document for consideration at the next AS meeting as appropriate.

On agenda.

- 9) Ed Williams to fashion AS-055 into a Requirements Document and to bring said document back to AS for further consideration.

Completed. This document was posted to the AS Home Page on atscmembers.org on June 7 (**Attachment 7**).

5. OPENING REMARKS OF THE CHAIRMAN

Chairman Davis recognized that the committee has a full agenda today. He thanked committee members for their hard work and observed that good progress has been made on key projects, specifically the "Roadmap" effort. He said this project is important and deserves attention from AS members.

6. TV ANYTIME LIAISON REPORT (KELLY WILLIAMS)

Kelly Williams was not present at the meeting and so this agenda item was deferred to the next AS meeting.

7. ROAD MAP TO PRODUCTS AND SERVICES (MARK RICHER)

Mr. Richer reminded the committee that at the last AS meeting, an AHG was formed to follow-up on a planned meeting of non-technical industry leaders to address the future use of ATSC standards in the marketplace. AS agreed that the meeting should be open to all related industries, and that we should strongly encourage the participation of broadcasters and consumer receiver

manufacturers' representatives involved in planning new services and products. Mr. Richer identified the following key goals:

- Educate the attendees about the potential use of existing ATSC standards and those under development.
- Solicit input about the likely market roll-out of related products and services.
- Recruit new non-technical participants in the ongoing work of the Applications Subcommittee.

Mr. Richer reported that the AHG—consisting of Craig Tanner (Sharp), John Henderson (Hitachi), Ed Caleca (PBS), and Lynn Claudy (NAB)—had developed a draft program, given in **Attachment 4**. Mr. Richer added he would like to begin to develop a list of potential presenters and attendees, specifically broadcast management and CE product planners, among others. Mr. Richer said two potential dates have been identified:

- September 28 in Chicago or Dallas
- October 27 in Washington, D.C.

Chairman Davis opened the floor to discussion. Comments were offered on the general concept and proposed event dates. October 27 in Washington was identified as the better option. Brian Smith (Philips) noted the importance of clearly identifying the target market and attendees, and then fashioning the program to address their needs. The interests of potential attendees from the broadcast and CE industries were addressed in some detail by Craig Tanner (Sharp), Chairman Davis, Wayne Luplow (Zenith), Ira Goldstone (Tribune), Graham Jones (NAB), Steve Smith (Liberty), Glenn Reitmeier (NBC), Bob Rast (Linx), and Brian Smith. Mr. Tanner emphasized the need to attract the right high-level people from broadcast groups and stations. Mr. Richer agreed and added that aggressive promotion of the event would help, as would securing co-sponsors as planned. Mr. Luplow observed that to get high-level people to attend, the program would need to be business-centric.

Mr. Reitmeier and Art Allison (NAB) suggested that some cooperative effort with the upcoming MSTV Update program could be beneficial. One suggestion was the addition of a panel to the MSTV program that would spark interest in the DTV Roadmap seminar.

Mr. Williams and Mr. Tanner suggested that including a major advertising agency or advertising industry trade organization could be valuable. Chairman Davis agreed that this could be quite beneficial to the program by attracting the type of attendee that might not normally consider attending an ATSC event.

Chairman Davis suggested that one way to gain high-level visibility of the program would be to have a discussion of the effort placed on the agendas for upcoming NAB and MSTV Boards of Directors meetings. He volunteered to pursue this avenue. He also took an action item to follow-up with advertising agency trade organizations to gauge their interest in participating in the seminar.

Mr. Richer suggested that the next step forward would include getting CEA, MSTV, and NAB to co-sponsor the program, with October 27 as the working date. He said the draft program also needs to be expanded to provide a summary of the planned content. Chairman Davis encouraged interested persons to join the AHG and work with Mr. Richer to further develop the program. Mr. Luplow agreed to participate in the AHG, as did Mr. Reitmeier.

8. DATA EXCHANGE APPLICATION

Chairman Davis noted correspondence from Chris Lennon (Encoda Systems) regarding the need for standardization work in the area of data exchange among traffic, automation, and content

delivery systems. Mr. Lennon called attention to a draft “Needs Overview” statement, posted to the AS reflector on June 1 (**Attachment 8**).

Mr. Lennon said that getting an organization such as the ATSC behind this effort, and encouraging all of the interested parties to work together for the good of the industry, is the right way to go. Currently, he reported, there are those who feel that the only way to get this work done is for a few vendors to crank out a specification and then hope for buy-in from the other vendors in the industry. Mr. Lennon argued that a serious industry effort under the umbrella of ATSC is a much better way to move forward. He went on to outline the need for this work and the relationship of the proposed work to the current PMCP specification.

Graham Jones (NAB) expressed support for this effort, saying it would be of benefit to broadcasters, who currently tend to be hampered by the need for proprietary solutions in this part of the station infrastructure. As such, he offered, this is a good topic for discussion by AS. Mr. Jones went on to offer specific comments on Mr. Lennon’s proposal (see **Attachment 9**). He added that before ATSC proceeds with any work in this area, it should formally ask SMPTE whether they would prefer to take up the effort. He acknowledged that, in all likelihood, SMPTE would defer to ATSC in this case.

Chairman Davis clarified the organizational steps relating to this proposal. He said that if AS wants to move the suggestion forward, a requirements statement will need to be drafted and, upon approval by AS, forwarded to the Board for consideration as a potential T3 work item. Mr. Richer added that a parallel effort should be to formally communicate with SMPTE regarding this proposal. Mr. Lennon acknowledged the ATSC process, but cautioned that timeliness of this work is critical.

Chairman Davis observed the consensus of the committee to move forward. He asked Mr. Lennon to draft the requirements statement and to post the document to the AS reflector. Upon resolution of any comments, Chairman Davis said he would forward the document to the Board for formal consideration.

The meeting broke for lunch at 11:50 a.m.

The meeting resumed at 12:45 p.m.

9. STREAMING TEXT DATA REQUIREMENTS (MIKE DOLAN)

Chairman Davis called attention to the proposal from Mr. Dolan regarding streaming text applications first brought up at the March 31 meeting of AS. (See **Attachment 10**, “Issue #2”.) Chairman Davis asked for feedback from the committee on whether this issue should be pursued at this point. Comments were offered by Brian Smith, Mr. Tanner, Mr. Richer, Mr. Williams, Robert Blanchard (Sony), Steve Smith, Mark Eyer (Sony), and others. Mr. Allison said the fundamental question is whether this capability is desirable; he argued that it is. Mr. Dolan outlined the types of applications that this capability might facilitate.

Subsequent discussion focused on possible uses of streaming text data and possible solutions. Questions included the role that ACAP might play in facilitating such a service. Mr. Richer said the ideal solution would include a service that could use the existing 708 captioning engine for simple implementations or the ACAP engine for more complex implementations. The impact on legacy receivers was also discussed.

Steve Smith suggested that a broader discussion was warranted because there are a number of potential applications for streaming text. He said AS needs to sort out the possibilities and relative merits of each in an extended discussion.

Chairman Davis observed the consensus of the committee to pursue the streaming text data concept. He asked that a small group of members consider the options discussed at today’s

meeting and bring back a draft requirements document for consideration by the committee at the next meeting. Mr. Richer agreed with this approach, and added that the requirements document should include a discussion of how streaming text capability could seamlessly integrate with ACAP. Chairman Davis asked Mr. Dolan to lead an AHG to draft the requirements document, with members Mr. Williams, Mr. Eyer, Mr. Allison, and Mr. Blanchard.

10. VERY LOW BITRATE VIDEO REQUIREMENTS DOCUMENT (ED WILLIAMS)

Chairman Davis reminded the committee that this issue was discussed at the last AS meeting, the outcome of which was an action item for Ed Williams to fashion AS-055, "Low Bit-Rate Video and Audio Stream Scenarios and Operational Parameters," into a Requirements Document. Mr. Williams called attention to the revised document, given in **Attachment 7**. He reviewed changes made to AS-055 since it was last reviewed by AS and the reasons for the changes.

Mr. Williams said the requirements document describes a functionality that will permit optimization of the DTV channel for multicast operation. He suggested that the function and related equipment used for processing and displaying digital television programming likely can be described in more technical details through the creation of a task force or specialist group once the initial concepts and requirements are defined and established.

Mr. Williams urged that AS determine if a standard should be developed for the generation, test and monitoring, and reception of low bit rate video and audio streams. At some point, he offered, a Recommended Practice for low bit-rate barker channels should be developed and coordinated so that broadcasters, cable system operators, and receiver manufacturers fully understand the expectations of all participants in the ATSC terrestrial broadcast standard.

Steve Smith endorsed the concepts presented in AS-055 and urged AS to move the work forward. He said there is a need right now for low bit rate video/audio services. Additional comments were offered by Mr. Goldstone, Mr. Allison, Charles Einolf (CBS), Mr. Dolan, and others.

Chairman Davis observed the consensus of the committee to move forward with the low bit rate audio/video requirements document. He asked Mr. Williams to review AS-055 keeping in mind the discussion today and to produce a revised requirements document for final approval at the next AS meeting. Mr. Williams asked any committee members who wished to provide input on the document to contact him as soon as possible.

11. ACAP WHITE PAPER REPORT

Chairman Davis reminded the committee that this issue was suggested at the February 18 meeting by Brian Smith, who offered that a White Paper on ACAP would be useful at this point in time. As a beginning effort, the focus was to be constrained to those applications which could be implemented with a minimum of back-office complexity. An example, he suggested, is the transmission of a news crawl that could be customized, or turned on or off. An AHG was formed to work on this project consisting of Mr. Richer, Brian Smith, Craig Tanner (Sharp), and Steve Smith (Liberty). At the March 31 meeting, Chairman Davis suggested that the issue be tabled until today's meeting to provide sufficient time for a thorough discussion.

Chairman Davis, while supportive of the project, observed that right now sufficient resources are unavailable to pursue this effort. He suggested that the ACAP White Paper project be brought back at the next meeting for consideration. This approach was accepted by the committee.

12. ADVANCED CODECS IN MAIN STREAM

At the last AS meeting, Chairman Davis suggested the formation of an AHG to develop an applications statement and to document a need for possible use of advanced codecs in a stream

other than E-VSB (i.e., the main stream). He asked the AHG—consisting of Bob. Rast (Linx), Tom Hankinson (ABC), and other interested members—to consider the outcome of the April 2 T3 discussion and to prepare a document for consideration by AS, as appropriate.

Mr. Rast briefed the committee on where this issue now stands. Mr. Eyer reported that T3/S8, at the direction of T3, verified that CS/T3-608 and CS/T3-609 “do not constrain advanced codec systems only to operate in the robust mode, nor do they enable carriage in the main mode.” He said this evaluation will be given to T3 at the June 10 meeting. Mr. Rast said that based on this assessment, the AHG has completed its assigned task.

Subsequent discussion focused on the larger issue of advanced codec use in the main mode. Mr. Richer said the fundamental business question is whether we want the use of advanced codecs to evolve in a standardized way or in a proprietary way. Brian Smith said that making changes to the consumer DTV service would be problematic. Steve Smith argued that flexibility is the key to serving the consumer today. He said it is important to address emerging business models in a timely manner. Mr. Tanner pointed out that addressing new markets requires cooperation between broadcasters and receiver manufacturers; he reminded the committee that this is a two-way street. Additional comments were offered by Mr. Einolf, Mr. Allison, Mr. Reitmeier, Mr. Eyer, Mr. Luplow, and others.

Brian Smith urged caution in doing anything that could cause confusion on the part of consumers, which he said could derail the DTV transition. He said we need to focus on protecting the consumer’s investment in legacy products. This view was echoed by Mr. Reitmeier.

Mr. Richer pointed out that the best way to prevent consumer confusion will be through the discussion of specific concerns and the development of ways to address those concerns. He warned that if we just ignore this issue, it will not go away.

Chairman Davis suggested that, as a path for moving this discussion forward, an AHG be formed to develop a requirements document and formally propose it to AS. This approach was accepted by the committee. Chairman Davis asked for volunteers for this group; volunteers included Brian Smith, Mr. Eyer, a representative to be named from Zenith¹, Steve Smith, Mr. Allison, C.B. Patel (Samsung), Garry Paxinos (USDTV), James Fang (Mitsubishi Electric), and a representative to be named from Tribune. Chairman Davis asked Mr. Paxinos to chair the group. Mr. Whitaker took an action item to set up an email reflector for this AHG.

13. GOALS, PRIORITIES, AND OPERATION OF AS

Chairman Davis opened a discussion on possible changes in the operation of the Applications Subcommittee. He suggested that it might be worthwhile to consider developing a structure where one or more standing committees address specific, focused subject areas. In this way, the subcommittees could do their work in individual project areas and then report back to the full committee.

Brian Smith commented that the present process of creating ad hoc groups to address particular issues works well. He suggested that standing committees are not necessary at this point for the work of AS. Steve Smith agreed, while acknowledging that one or more standing committees might be useful as particular projects arise. Additional comments were offered by Mr. Allison, Mr. Einolf, and Mr. Rast. Mr. Richer suggested that the current approach of using AHGs works well. In addition, he suggested that a split meeting might work, where the entire group meets in a plenary session and then breaks into two or more groups to address particular issues, with the meeting coming back together for a plenary at the end of the day.

¹ On June 9 Wayne Bretl was identified as the AHG member from Zenith.

Chairman Davis suggested that at the end of each meeting a review of action items developed at the meeting should be reviewed, in addition to items that will need to be on the next agenda. This approach was agreed to by the committee.

Discussion next focused on the future of the “Brainstorming” sessions held earlier in the year. Mr. Rast observed that considerable effort had gone into this project and suggested that it should be moved forward. Chairman Davis agreed.

Additional discussion focused on how contentious issues might be better handled at AS meetings. Mr. Rast suggested that the break-out session concept might be useful for such cases, with those on each side of a particular issue being divided into groups and directed to summarize their positions. Afterward, each group would present their views to the full group.

Chairman Davis drew the discussion to a close and thanked committee members for their input.

14. OTHER BUSINESS

14.1 White Paper Priority List

Chairman Davis called attention to the White Paper priorities list, given below:

- ACAP
- Antenna technology and steering
- DCC
- Conditional access
- Data broadcasting
- “Gold rack”
- Opportunistic data
- B to B: narrowcasting, electronic billboards, broadcast advertising
- ATSC Standards

Chairman Davis said the AS needs to keep these “communications of applications” projects in mind as it considers future work.

15. NEXT MEETING OF THE APPLICATIONS SUBCOMMITTEE

The next meeting of the Applications Subcommittee is scheduled for 21 September 2004. The final meeting of the year will be held on 18 November 2004.

16. ADJOURNMENT

There being no further business before the Applications Subcommittee, the meeting was adjourned at 3:25 p.m. EDT.

Action Items Developed at this Meeting

The following action items were developed at the June 8 meeting of the Application Subcommittee. Bracketed dates indicate items carried forward from a previous meeting [date].

- 1) Kelly Williams to contact Skip Pizzi of the TV Anytime Forum to explore liaison with regard to PVR digital program insertion work currently underway in AS. Mr. Williams to invite Mr. Pizzi to prepare a presentation to AS on the work of TV Anytime. [12-09-2003]
- 2) Steve Smith to inquire whether WRAL might be interested in participating in the AHG formed to develop a draft White Paper on ACAP. [02-18-2004]
- 3) Chairman Davis to contact NAB and MSTV with the goal of having the "Roadmap to Products and Services" seminar placed on the agendas for upcoming NAB and MSTV Boards of Directors meetings.
- 4) Chairman Davis to follow-up with advertising agency trade organizations to gauge their interest in participating in the "Roadmap to Products and Services" seminar.
- 5) Chris. Lennon to draft a requirements statement for proposed work relating to data exchange applications and to post said document to the AS reflector. Upon resolution of any comments, Chairman Davis to forward the document to the ATSC Board for formal consideration.
- 6) Graham Jones and Chris Lennon to communicate to SMPTE Engineering VP Peter Symes the proposal for development of a standard for Traffic Data Exchange and to identify whether SMPTE would prefer to take on this work.
- 7) Mike Dolan to lead an AHG on Streaming Text Data and to bring back a draft requirements document for consideration at the next meeting. AHG members include Ed Williams, Mark Eyer, Art Allison, and Robert Blanchard.
- 8) Ed Williams to review the low bit rate audio/video requirements document (AS-055) keeping in mind the discussion today and to produce a revised requirements document for final approval at the next AS meeting.
- 9) Chairman Davis to place the following item on the agenda for the next AS meeting: "ACAP White Paper Project."
- 10) Garry Paxinos to lead an AHG to develop a requirements document regarding possible use of advanced codecs in the main mode for consideration by AS at the next meeting. The AHG is to include: Brian Smith, Mark Eyer, Wayne Bretl, Steve Smith, Art Allison, C.B. Patel, Garry Paxinos (USDTV), James Fang (Mitsubishi Electric), and a representative to be named from Tribune
- 11) Jerry Whitaker to set up an email reflector for the advanced codec AHG.

Attachments

Attachment 1: Attendance List

http://www.atscmembers.org/sg/AS/2004_06_08_Meeting/6-8-04_AS_Attendance.doc

Attachment 2: AS-060, Draft Agenda

http://www.atscmembers.org/sg/AS/2004_06_08_Meeting/AS-060_Draft_Agenda_AS_04_06_08.doc

Attachment 3: AS-059, Draft Minutes from 31 March 2004 Meeting

http://www.atscmembers.org/sg/AS/2004_06_08_Meeting/AS-059r5_Minutes_AS_2004-03-31.doc

Attachment 4: AS-062, DTV Roadmap Draft Program

http://www.atscmembers.org/sg/AS/2004_06_08_Meeting/AS-062_DTV_Roadmap_Program.doc

Attachment 5: AS-028r11, E-VSB White Paper

http://www.atscmembers.org/sg/AS/2004_06_08_Meeting/AS-028_E-VSB_wht_paprV11.doc

Attachment 6: AS-028r12, Reformatted E-VSB White Paper

http://www.atscmembers.org/sg/AS/2004_06_08_Meeting/AS-028r12.pdf

Attachment 7: AS-055, Revised Low Bit Rate Paper

http://www.atscmembers.org/sg/AS/2004_06_08_Meeting/AS-055%20Low%20Bit%20Rate%20Video-Audio.doc

Attachment 8: AS-061, Traffic Automation Needs Overview

http://www.atscmembers.org/sg/AS/2004_06_08_Meeting/AS-061_Needs%20Overview.doc

Attachment 9: AS-063, Correspondence Relating to Data Exchange Proposal

http://www.atscmembers.org/sg/AS/2004_06_08_Meeting/AS-064_Jones-Lennon_Correspondence.doc

Attachment 10: AS-052, DTVCC Issues

http://www.atscmembers.org/sg/AS/2004_03_31_Meeting/AS-052_DTVCC_and_E-VSB.doc