

Minutes: ATSC Applications Subcommittee

31 March 2004, 1:30 p.m. to 4:00 p.m.
WRF, 1750 K St. N.W., Washington, D.C.

1. WELCOME AND ROLL-CALL

Chairman Sterling Davis (Cox Broadcasting) called the meeting to order at 1:30 p.m. at Wiley, Rein & Fielding in Washington, D.C. He thanked WRF for hosting today's meeting and 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 March 19 (**Attachment 2**). No changes were requested and the agenda was accepted as submitted.

3. APPROVAL OF DRAFT MINUTES OF 18 FEBRUARY 2004

Chairman Davis asked for consideration of the draft Minutes of the February 18 meeting, posted to the AS reflector on March 5 (AS-047, **Attachment 3**). An editorial correction to one of the action items was identified by Craig Todd (Dolby). No other 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 February 18 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. [2003-12-09]

Carried forward. Mr. Williams reported preliminary discussions on this subject and said he will follow-up prior to the next meeting.

- 2) Andy Bader, Ed Williams, and Dale Kelly to forward the next revision of AS-028 to their managers to "test fly" the document with the intended audience and to report back at the next AS meeting. [2003-12-09]

Completed. Chairman Davis reported that Mr. Bader had sent the draft document to upper management at Tribune and that the document was given favorable reviews.

- 3) Chairman Davis to present AS-040 ("Requirements for Remote ENG Communications Standardization"), with certain edits agreed to during this meeting, to the ATSC Board of Directors for consideration as a work item for T3.

Completed. This issue was presented to the ATSC Board of Directors at its March 31 meeting.

- 4) Chairman Davis to place the topic "Document Methods to Achieve Enhanced-VSB" on the agenda for the next AS meeting.

Completed. See agenda item 7, "Roadmap to Products and Services,"

- 5) Ed Williams to lead an ad-hoc group to develop guidance to T3/S6 on the issue of very-low bit rate scenarios. AHG members to include Art Allison, Craig Tanner, and Charles Einolf. Mr. Williams to report back to AS with a progress report at the next meeting.

Completed. A draft document (AS-055) was posted to the AS reflector on March 25 (**Attachment 4**).

- 6) Joseph Flaherty to convey a request by AS to Don Messina that he serve as chair of an AHG to develop a draft White Paper on ACAP. (Note: participants in the group include Mark Richer, Brian Smith, Craig Tanner, and Steve Smith.)

Completed. Mr. Messina will be unable to lead this effort because of other commitments.

- 7) Steve Smith to inquire whether WRAL might be interested in participating in the AHG formed to develop a draft White Paper on ACAP.

Carried forward.

- 8) E-VSB White Paper drafting group (Kelly Williams and Victor Tawil), and any other interested parties willing to contribute, to consider the issues brought up at today's meeting and to offer revised wording relating to the "System Description" section; the drafting group to bring back a final document to the next AS meeting.

Completed. This document was posted to the AS reflector on March 24 (**Attachment 5**).

- 9) Chairman Davis to place on the agenda for the next meeting the topic "Fallback PSIP".

Completed. See agenda item 12, "Discussion of Fallback PSIP Application."

5. OPENING REMARKS OF THE CHAIRMAN

Chairman Davis recognized that the committee has a very full agenda today. He thanked committee members for their hard work and observed that good progress has been made on key projects.

Chairman Davis reported that the ATSC Board of Directors, at its meeting earlier in the day, approved the AS recommendation that T3 be assigned the work described in AS-040r16, "Requirements for Remote ENG Communications Standard". The document presented to the Board is given in **Attachment 6**.

6. E-VSB USAGE SCENARIOS FOR T3/S9-2: INPUT STATUS FROM AS (WAYNE BRETL)

Chairman Davis reminded the committee of the discussion at the February 19 meeting relating to a request from Wayne Bretl (Zenith), as chair of the T3/S9 AHG drafting a Recommended Practice on E-VSB (S9-2), for input to their document. Mr. Bretl said the group has been discussing the contents of the RP, and developed the opinion that besides an overview and detailed discussion of parts of the system, it would be beneficial to have one or more complete usage scenarios that could be explained on an end-to-end basis.

Chairman Davis called attention to AS-057, "E-VSB Usage Scenarios" posted to the AS reflector on March 29 by Tom Hankinson (ABC) in response to discussion at the February 18 AS meeting (**Attachment 7**). Mr. Bretl recognized the input from AS members and said it would be helpful in the development of the draft RP in S9-2. Chairman Davis asked any AS members with further input for Mr. Bretl to correspond with him and S9-2 directly.

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

Mr. Richer reminded the committee that at the last AS meeting, he suggested it would be useful to develop a "road map" to the introduction of E-VSB applications. Upon further reflection, he said, he came to the conclusion that AS should address the broader issue of ATSC DTV evolution. One of our biggest challenges, he offered, is to continue to evolve our standards in an orderly fashion that provides continuity in the market place. He said that ATSC has developed a number of voluntary standards and is in the process of developing new specifications. However, he added, we have not put these standards into a market context.

Mr. Richer said that after consulting with Chairman Davis, he asked Craig Tanner (Sharp), John Henderson (Hitachi), and Lynn Claudy (NAB) to work with him to develop a draft “Road Map to Products and Services based on ATSC Standards”. This document, AS-054, was posted to the AS reflector on March 23 (**Attachment 8**). He said the document is meant to serve as a catalyst for discussion among broadcasters and manufacturers to help foster a better understanding of potential marketplace scenarios. He emphasized it is not meant to be an absolute plan for the marketplace, but rather a guide for consideration by those planning new services and products.

Mr. Richer suggested that the next step in this process would be for AS to hold an all-day meeting focused on the issues listed in the “Road Map”. This meeting, he said, should be open to the industry and AS should strongly encourage the participation of broadcasters and consumer receiver manufacturers’ representatives involved in planning new services and products.

Chairman Davis opened the floor for discussion. Specific comments were offered by Mr. Tanner, Mr. Henderson, Art Allison (NAB), Glenn Reitmeier (NBC), Ira Goldstone (Tribune), Joseph Flaherty (CBS), Mr. Claudy, Ed Caleca (PBS), and others.

Mr. Richer suggested that AS move forward on this project by assigning ownership of the various topics listed in the draft document and identifying a 1- to 2-day meeting date that would include non-technical tutorial sessions followed by detailed open discussions among all participants. Mr. Tanner suggested that an outline of the planned agenda would be helpful in lining-up the right individuals to attend and contribute to the program. Chairman Davis suggested that an organizing committee be formed to begin this process. Mr. Richer said his existing AHG members could begin developing a program. He asked Ed Caleca (PBS) to join the effort; Mr. Caleca said he would be able to participate. Mr. Richer went on to suggest that each AS member at the meeting take an action item to provide the names of potential attendees from their organization to the planned conference.

Subsequent discussion focused on how to reach the right people and how to convince them to attend. Mr. Claudy said that NAB would provide support as appropriate to publicize the event. Mr. Flaherty cautioned that in order to get broadcast station managers to attend, they will need to be given a compelling reason; he added that a certain degree of education on critical issues would be appropriate.

Chairman Davis drew the discussion to a close. He asked the AHG to develop program details and to move forward to the extent possible via the AS reflector. He also asked AS members to forward to Mr. Richer suggested names of potential attendees and speakers.

8. FALLBACK CAPTIONS AND STREAMING TEXT DATA REQUIREMENTS (MIKE DOLAN)

8.1 Fallback Captions

Chairman Davis reminded the committee that this issue, brought to AS from T3, was discussed briefly at the February 18 meeting. He called attention to AS-052, “DTVCC and E-VSB” (**Attachment 9**, “Issue #1). Mike Dolan (TBT) reviewed the issues at hand, which involve the possibility of enabling fallback captions and streaming text applications (such as a news or stock ticker).

Chairman Davis asked for feedback from committee members on the fallback captions issue. A variety of views were expressed. Ed Williams (PBS) argued that fallback captions are appropriate, since captions are—in fact—audio for the hearing impaired. Mr. Tanner observed that the captioning issue is a valid point of concern, but he suggested a larger view of fallback applications needs to be developed before we consider suggesting that any work be done in this

area. Mr. Allison questioned the need for fallback captions, since E-VSB is an optional mode. He asked “who wants this feature?” and added that he does not see a case for it. Craig Todd (Dolby) offered that after some reflection, he did not believe such a feature is necessary.

Chairman Davis drew the discussion to a close. He observed the consensus of AS that the committee does not see a need at the present time to develop the capability for closed captions for the fallback mode.

8.2 Streaming Text Data

Chairman Davis called attention to the proposal from Mr. Dolan regarding streaming text applications. (See **Attachment 9**, “Issue #2”.) Chairman Davis said this question could be addressed at a future meeting of AS if warranted.

9. VERY LOW BITRATE VIDEO SCENARIOS AND OPERATIONAL PARAMETERS (ED WILLIAMS)

Chairman Davis called attention to AS-055, “Draft Low Bit-Rate White Paper,” posted to the AS reflector on March 24 by Ed Williams (**Attachment 4**). Mr. Williams reviewed the submission and asked for feedback on how this work might move forward. Chairman Davis opened the floor for discussion.

William Miller (ABC), the chair of T3/S6, observed that this issue is an element of the low bit rate issue discussion that has been before T3 on more than one occasion. Tom Hankinson (ABC) said there are legacy receiver issues involved and that more discussion is needed before going off in any one direction. Mr. Richer acknowledged this is an important issue and suggested an action item for Ed Williams to fashion AS-055 into a Requirements Document and to bring said document back to AS for further consideration. The committee agreed to this approach.

10. ACAP WHITE PAPER REPORT

Chairman Davis reminded the committee that this issue was suggested at the February 18 meeting by Brian Smith (Philips), 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, Mr. Smith, Mr. Todd, and Steve Smith (Liberty). Chairman Davis suggested that this issue be tabled until the next meeting of AS in favor of the “Roadmap to Products and Services” project. This approach was accepted by the committee.

11. DISCUSSION AND APPROVAL OF E-VSB WHITE PAPER (KELLY WILLIAMS)

Chairman Davis reminded the committee that at the February 18 meeting the group had arrived at consensus wording for AS-028, “ATSC Application Subcommittee White Paper on Enhanced VSB System,” with the exception of the section “System Description.”

Following integration of comments offered during the last meeting, a revised version of the draft White Paper, AS-028r10, was posted by to the AS reflector on March 24 by Kelly Williams (**Attachment 5**). Mr. Williams said version 10 includes the changes captured in Revision 8 (see the Minutes of February 18) along with some minor editorial changes. He said the drafting group considered the contribution of Charles Einolf (UPN) and concurred with all his edits and incorporated them into Revision 10. Mr. Einolf’s comments are given in **Attachment 10**. Additional comments on the output document were provided to Kelly Williams on March 25 by Bob Rast (Linx) (**Attachment 11**).

Kelly Williams went through the revised document and certain editorial changes were agreed to by the committee. Kelly Williams **moved** that AS accept AS-028r10 with editorial revisions agreed to during today's meeting as an Applications Subcommittee White Paper. **Second** by Mr. Hankinson. Chairman Davis called the question. It was **approved** on a show of hands. There were two no votes and one abstention.

Kelly Williams took an action item to update AS-028 and post a clean, final version to the AS reflector. Chairman Davis said he would present the final version to the Board at its next meeting.

12. DISCUSSION OF FALLBACK PSIP APPLICATION (CRAIG TODD)

Chairman Davis reminded the committee of a discussion begun at the February 19 meeting regarding the concept of "fallback PSIP." Mr. Todd explained the idea of carrying full PSIP for main services in the robust mode to allow receivers to collect program guide information, even for those channels that do not have reliable main service reception. He suggested that AS consider "fallback PSIP" as a possible application for E-VSB. He said there were two issues:

- Is it technically possible—with the specifications being developed—to send PSIP over the robust mode?
- If not, is this a useful application to consider for further work?

Mr. Allison suggested that other technologies, such as the CEA Smart Antenna Interface, are more likely to solve the problem under consideration. Mark Eyer (Sony), chair of T3/S8, noted that such functionality is currently prohibited in CS/T3-606. He added, however, that this could be changed. Mr. Allison said that, should AS want to explore this issue further, the first step should be a technical evaluation of how much work would be involved to enable such functionality.

Mr. Richer suggested that AS could recommend to T3/S8 that it consider removing the prohibition against this feature in CS/T3-606 as part of its ongoing evaluation of feedback during the Candidate Standard period. Various additional views were offered by committee members. Mr. Hankinson said that while the idea is interesting, he did not see a compelling need and suggested that in the absence of a driving force for such functionality, it should be tabled.

Chairman Davis acknowledged the input and noted there was no consensus among AS members to proceed on this issue.

13. OTHER BUSINESS

13.1 Multiple Codecs

Following up on the agreement of AS at its 9 December 2003 meeting, Chairman Davis noted that no response has been received to his letter to T3 Chairman Ralph Justus and T3/S6 Chair Bill Miller relating to the use of new codecs in a the main transport stream (i.e., a stream other than E-VSB). Mr. Miller said there was no specific work underway within T3/S6 that would impact this functionality. He said the issue here is transport-related, and therefore the domain of T3/S8.

Mr. Tanner cautioned the committee against rushing into this issue. Mr. Richer agreed that we need to proceed with caution; however, he noted that use of advanced coding in the marketplace is going to happen. He said the question is whether we want to see it happen in a standardized way. Kelly Williams agreed, adding that we should not preclude the use of advanced codecs. Mr. Tanner countered that it is a question filled with potential pitfalls, and he urged the committee to carefully think through any action. Mr. Miller said that, upon reflection,

some small changes would be necessary to A/53 to make certain this functionality is not prohibited.

Chairman Davis suggested the formation of an AHG to develop an applications statement and to document a need. Mr. Rast and Mr. Hankinson volunteered to participate. Mr. Tanner noted that Mr. Justus stated during the ATSC Board of Directors meeting earlier in the day that T3 would examine this issue at the April 2 meeting. He added that AS should wait until T3 has rendered a viewpoint.

Discussion followed on how best to proceed. Mr. Richer suggested that AS could wait to see what T3 decides and, if AS does not agree with that decision, the committee could consider drafting language at the next meeting directing certain actions, which could then be sent to the Board for consideration. Pat Griffis (Microsoft) urged Chairman Davis to send correspondence to Mr. Justus prior to the April 2 meeting asking for discussion on this issue by T3.

Chairman Davis took an action item to resend the original correspondence to Mr. Justus and Mr. Miller, and added that he will bring the issue up at the next T3 meeting under "AS Liaison". Chairman Davis asked an AHG consisting of Mr. Rast, Mr. Hankinson, and other interested members to consider the outcome of the T3 discussion and to prepare a document for consideration at the next AS meeting as appropriate.

13.2 White Paper Priority List

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

- E-VSB
- ACAP
- DCC
- Conditional access
- Data broadcasting
- "Gold Rack"
- Opportunistic data
- B to B: narrowcasting, electronic billboards, broadcast advertising
- ATSC Standards

Chairman Davis said the committee needs to keep these "communications of applications" projects in mind as AS considers future work. Mr. Richer suggested that, from the standpoint of priorities, development of presentations materials and tutorials for the "Roadmap" project discussed in agenda item 7 (above) should take priority over development of new White Papers. The committee agreed to this assignment of priorities.

Separately, Mr. Griffis suggested the addition of a White Paper on "Steerable Antenna Technologies" to the list. This suggestion was accepted by the committee.

14. NEXT MEETING OF THE APPLICATIONS SUBCOMMITTEE

The next meeting of the Applications Subcommittee is scheduled for 8 June 2004. Additional meetings are set for:

- 21 September 2004
- 18 November 2004

15. ADJOURNMENT

There being no further business before the Applications Subcommittee, the meeting was adjourned at 4:10 p.m. EST.

Action Items Developed at this 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]
- 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) 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.
- 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.
- 5) Kelly Williams to update AS-028r10 based on input from today's meeting and to post a clean, final version to the AS reflector.
- 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.
- 7) Chairman Davis to resend his liaison correspondence relating to use of advanced codecs to T3 Chairman Ralph Justus and T3/S6 Chairman William Miller, and to bring the issue up at the next T3 meeting under "AS Liaison."
- 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.
- 9) Ed Williams to fashion AS-055 into a Requirements Document and to bring said document back to AS for further consideration.

Attachments

Attachment 1: Attendance List

http://www.atscmembers.org/sg/AS/2004_03_31_Meeting/AS_Attendance_3-31-04.doc

Attachment 2: AS-053, Draft Agenda

http://www.atscmembers.org/sg/AS/2004_03_31_Meeting/AS-053_Draft_Agenda_AS_%2004-03-31_R1.doc

Attachment 3: AS-047, Draft Minutes from 18 February 2004 Meeting

http://www.atscmembers.org/sg/AS/2004_03_31_Meeting/AS-047_Minutes_AS_2004-02-18.doc

Attachment 4: AS-055, Low Bit Rate White Paper

http://www.atscmembers.org/sg/AS/2004_03_31_Meeting/AS-055_Low_Bitrate_White_Paper.doc

Attachment 5: AS-028r10, E-VSB White Paper

http://www.atscmembers.org/sg/AS/2004_03_31_Meeting/AS-028_E-VSB_wht_paprV10_TRKchg.doc

A clean version of AS-028r10 is given in:

http://www.atscmembers.org/sg/AS/2004_03_31_Meeting/AS-028_E-VSB_wht_paprV10.doc

Attachment 6: AS-040r16, ENG Return Path Requirements

http://www.atscmembers.org/sg/AS/2004_03_31_Meeting/AS-040r16_ENG_Return_Path.doc

Attachment 7: AS-057, E-VSB Usage Scenarios

http://www.atscmembers.org/sg/AS/2004_03_31_Meeting/AS-057_Applications_of_E-VSB.doc

Attachment 8: AS-054, Road Map Proposal

http://www.atscmembers.org/sg/AS/2004_03_31_Meeting/AS-054_Road_Map_revD.doc

Attachment 9: AS-052, DTVCC and E-VSB

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

Attachment 10: AS-028r7, E-VSB Revisions from Charles Einolf

http://www.atscmembers.org/sg/AS/2004_03_31_Meeting/AS-028_E-VSB_wht_paprV7_Revised_CE_021804.doc

See also:

http://www.atscmembers.org/sg/AS/2004_03_31_Meeting/AS-028_E-VSB_wht_paprV9.doc

Attachment 11: Linx Comments on AS-028

http://www.atscmembers.org/sg/AS/2004_03_31_Meeting/Rewrite%20of%20System%20Description%20Section.doc