

**Technical Committee on Network Audio Systems (TC-NAS)  
Audio Engineering Society 139<sup>th</sup> Convention  
New York, New York  
October 31, 2015**

Attendance: 17

Chair: Kevin Gross (KG)

Secretary: Ron Neely (RN)

1. Appointment of secretary for meeting
  - 1.1. Ron Neely
2. Agenda
  - 2.1. APPROVED
3. Previous Minutes
  - 3.1. AES 138<sup>th</sup> Convention – Warsaw, Poland – no meeting
  - 3.2. AES 137<sup>th</sup> Convention – Los Angeles, CA – minutes approved
4. Networking track leadership
  - 4.1. Tim Shuttleworth retiring from role
    - 4.1.1. TC-NAS unanimously thanks and appreciates Tim's service and leadership
  - 4.2. A volunteer is needed to take over this important role
    - 4.2.1. Bob Lee will consider role
  - 4.3. Example actions / responsibilities for role
    - 4.3.1. ten to twelve events on networking and namespace stuff
    - 4.3.2. find people who are willing to make presentations
  - 4.4. Respectively work with Media Networking Alliance and AVnu to present AES67 and AVB/TSN topics
  - 4.5. Plan needed for next two AES conventions
    - 4.5.1. Suggested Ideas
      - 4.5.1.1. Washington plug fest results report
      - 4.5.1.2. Immersive Audio (Meyer)
      - 4.5.1.3. AES67 Case Studies
      - 4.5.1.4. Compare/Contrast Centralized or Distributed Signal Processing
        - 4.5.1.4.1. Choice of Architecture
        - 4.5.1.4.2. Reliability
5. TC-TB activities
  - 5.1. Note a technical committee meeting on broadcast is at 5-6 pm this evening
6. Network-related standards and projects
  - 6.1. AES67 revised to AES67-2015
  - 6.2. AES67 Directory (Discovery and Name) Services
    - 6.2.1. Need is imminent – work must begin
    - 6.2.2. Decide to leverage AES SC-02-12 work, i.e. OCA, led by Jeff Berryman (JB)
      - 6.2.2.1. JB - action item: SC-02-12 begin requirements gathering
      - 6.2.2.2. KG - action item: get directory requirements to SC-02-12
    - 6.2.3. Note other protocol suites using directory services
      - 6.2.3.1. SVIP- Directory services
      - 6.2.3.2. SMPTPE 2071 – control and management for video equipment

- 6.3. SMPTE ST 2059 interoperability
  - 6.3.1. Project started in SC-02-13-M. SMPTE participation requested. No recent progress. Contributors needed.
- 6.4. SVIP and HBRMA standards work in VSF
  - 6.4.1. Video Services Forum (VSF) <http://www.videoservicesforum.org/>. VSF writes recommendations and technical reports
  - 6.4.2. Studio Video over IP (SVIP) standards work in VSF
    - 6.4.2.1. AES67 audio
    - 6.4.2.2. RFC4175 – uncompressed video over RTP
    - 6.4.2.3. TR-03 VSF –  
[http://www.videoservicesforum.org/download/technical\\_recommendations/VSF\\_TR-03\\_2015-11-12.pdf](http://www.videoservicesforum.org/download/technical_recommendations/VSF_TR-03_2015-11-12.pdf)
  - 6.4.3. High Bit Rate Media Architecture (HBRMA)
    - 6.4.3.1. not yet published
    - 6.4.3.2. Uses SMPTE 2022 (SDI over coax) with bit stream in RTP packets
- 7. AES.org updates
  - 7.1. Updates needed for TC-NAS page - <http://www.aes.org/technical/nas>
    - 7.1.1. Add Directory and Name services for networking - Done
    - 7.1.2. Remove Audio networking in Munich 2018 - Done
    - 7.1.3. Remove 1999-1-27 AES visits white house –Done
  - 7.2. Audio Systems topic page - <http://www.aes.org/networkaudio> – ok as is
  - 7.3. Add link to comparison of audio network protocols on Wikipedia  
[https://en.wikipedia.org/wiki/Comparison\\_of\\_audio\\_network\\_protocols](https://en.wikipedia.org/wiki/Comparison_of_audio_network_protocols) - Done
  - 7.4. Suggest adding executive description of TC-NAS - Done
    - 7.4.1. Recommends standards
    - 7.4.2. Recommends suggestions for workshops
- 8. New Business
  - 8.1. AES67 Floating Point Audio Transport
    - 8.1.1. Floating point audio becoming more popular – runs faster on Intel PC
    - 8.1.2. AES67 does not currently have means for transporting floating point audio
    - 8.1.3. Suggest Plan but requires volunteers, none yet identified
      - 8.1.3.1. Payload group – RFC describe how to put floating point into RTP packets
      - 8.1.3.2. KG and volunteers edit IETF draft (to become an RFC)
      - 8.1.3.3. Getting RFC through IETF – go to meetings
      - 8.1.3.4. Potentially reference RFC in future AES67 revision
  - 8.2. Upcoming AES meetings
    - 8.2.1. AES67 plugfest – coming up 2-5 November 2015  
<http://www.aes.org/standards/events/plugfest-2015.cfm>
    - 8.2.2. 140<sup>th</sup> AES Convention – Paris – June 2016
    - 8.2.3. 141<sup>st</sup> AES Convention – Los Angeles – October 2016
- 9. Adjourned