AIMS Progress Report: 2022

Steve Reynolds, Chairman AIMS

IP SHOWCASE

Audio Engineering Society | AIMS Alliance for IP Media Solutions | AMWA Networked Media. Working. | EBU | SMPTE | VSF Video Services Forum

AIMS Mission

*To foster the **adoption** of one set of common, ubiquitous,*

standards-based** protocols for **interoperability over IP

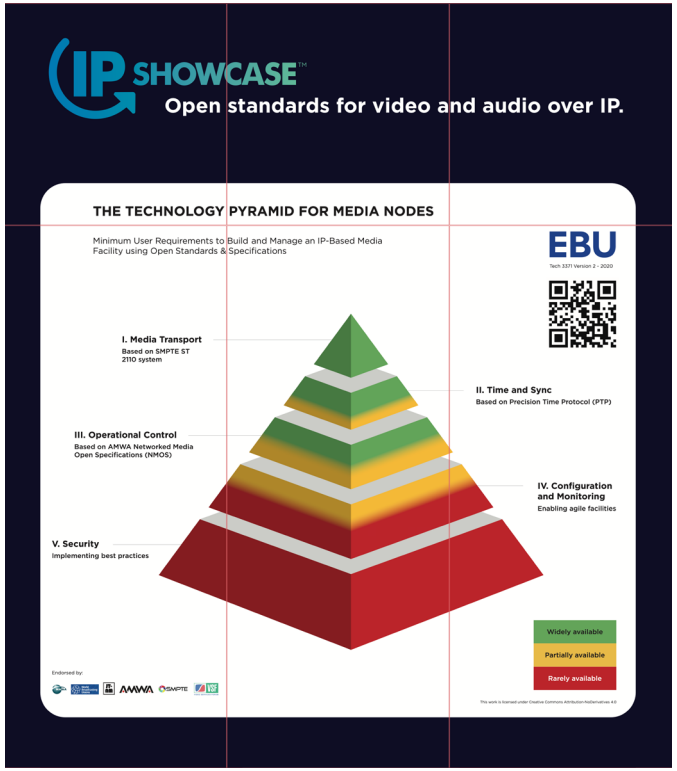
in the media and entertainment industry

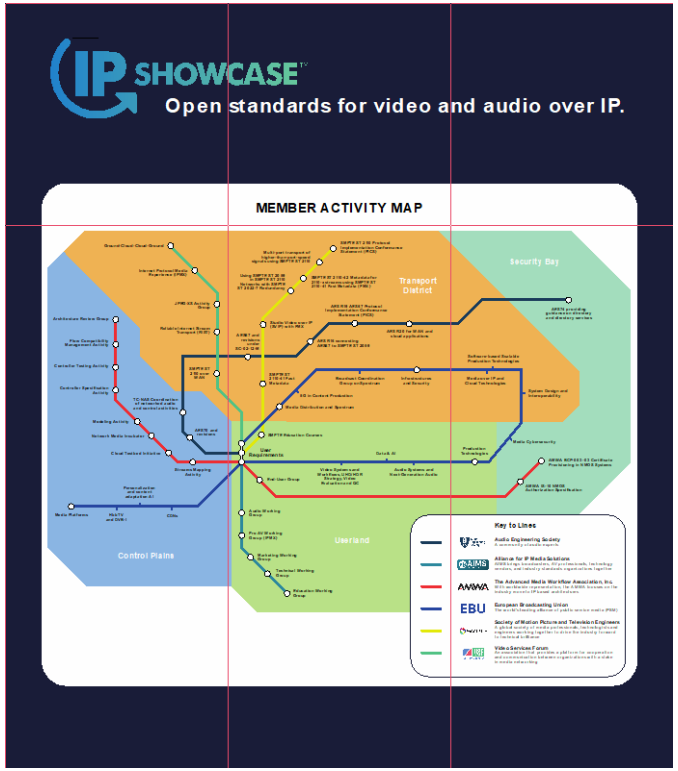
AIMS Member List

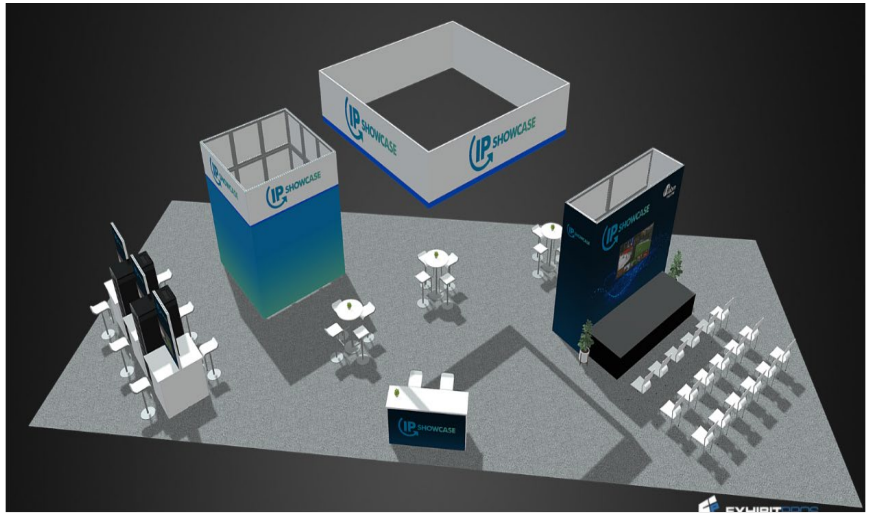
IP SHOWCASE™

AIMS at the IP Showcase

Open standards for video and audio over IP
Simple. Scalable. Proven.







Audio Engineering Society

AIMS
Alliance for IP Media Solutions

EBU

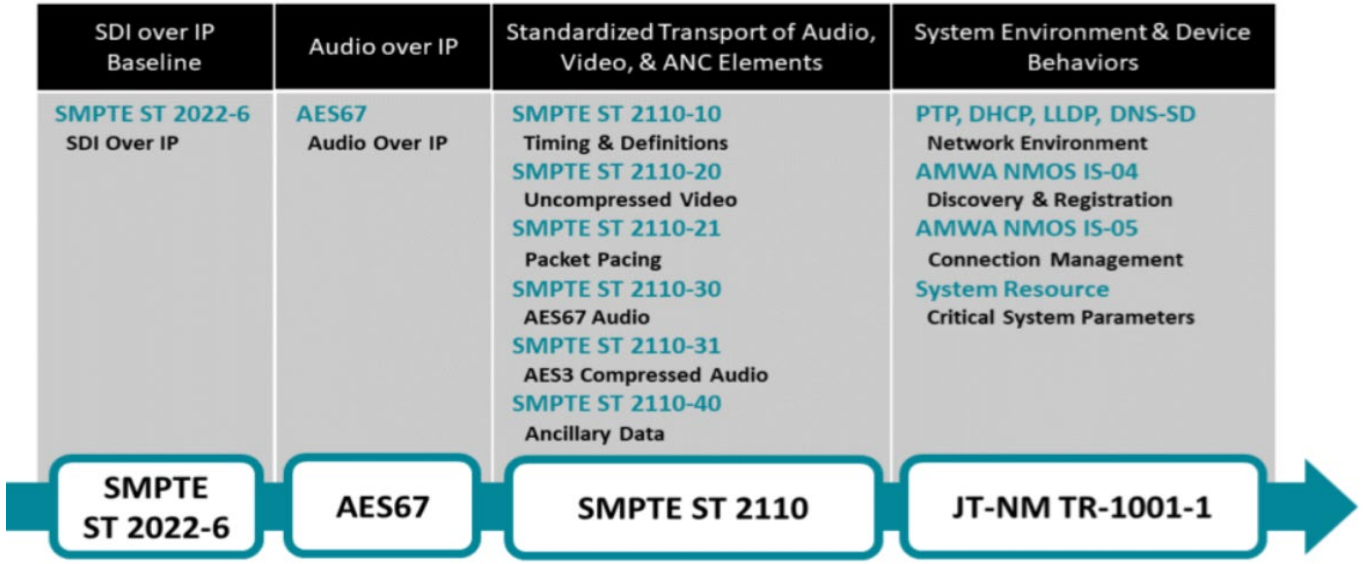
AMWA
Networked Media. Working.

SMPTE

VSF
VIDEO SERVICES FORUM

State of the Standards on the AIMS Broadcast Roadmap

• SMPTE ST 2110-x	Stable	minor updates coming soon
• AMWA IS-04/05	Stable	minor updates
• JT-NM TR-1001-1	Stable	minor update in 2020
• System Resource	Stable	published as AMWA IS-09
• AES67	Stable	revised (non-breaking) 2018
• PTP (IEEE 1588v2)	Stable	IEEE 1588:2022 (non-breaking)



Activities of the AIMS TWG

- Maintain and extend the AIMS roadmap
  - Considering IS-08
  - Guidelines around standard designs
  - Improve systemization to reduce project-specific integration work

- Review Current Progress and developments in the related organizations
  - SMPTE (2110 suite “one-year-reviews” ready for publication)
  - AES (AES67 added PICS, AES-67-over-WAN project happened)
  - IETF (payload format for JPEG-XS is finished/published)
  - VSF (developed TR-07/08 (JPEG-XS system spec) and TR-09 (2110-over-wan))
  - AMWA (BCP-006 “NMOS for other things”, MS-05-xx “NMOS Control Arch”

EWG Mission Statement

- *To define what is needed to establish a foundation of shared knowledge and practical experience in the area of IP media networking.*
- *We seek to remove barriers to entry, improve training, expand educational opportunities, and collaborate with industry organizations and others that might be developing classes, programs or certifications.*
- *Our goal is to rapidly expand the base of qualified professionals to meet the growing demand for IP media networking expertise*

Activities of the AIMS EWG

- Group kicked-off in December 2021
- Activities:
  - Set goals and mission statement
  - Definition of different audiences (or *personas*)
  - Creation of the AIMS Education library
    - Currently a collection of AIMS event presentations
    - Content has been organized into topics
    - Refinement of the library is ongoing
- Upcoming Work:
  - Generate searchable / filterable metadata tags
  - Integrate content from partner organizations

AIMS Audio Subgroup

Purpose

- Provide a forum within AIMS to focus on issues and activities that are specifically related to audio

Recent Activities

- “AES67 Beyond the LAN” (AES-R20-2021) – lead by N. Sturmel
  - Educating the industry about best practices for using AES67 over WANs and in the Cloud
- IPMX requirements for audio devices
  - Working with ProAV Group to clarify requirements for audio devices in IPMX systems, ensuring interoperability w/ AES67 and SMPTE ST 2110-30-compliant devices
- AIMS Education Library
  - Reviewing and curating the AIMS archive of audio presentations to provide the most useful material for the Education Library

AIMS Pro AV Subgroup

Background

- Functions as a subgroup of the AIMS Marketing Working Group

Mission

- Provide a forum for AIMS members to discuss and propose actions specifically related to education and promotion of IP networking open standards in Enterprise AV/IT (a.k.a. “Professional A/V or Pro AV”)

- Broaden AIMS member and Pro AV market feedback loop on major AIMS initiatives such as IPMX (Internet Protocol Media Experience)

State of the Standards on the AIMS Pro AV/IPMX Roadmap

IP SHOWCASE™

Hardware and Software

✓IPMX HW ⇔ IPMX SW Interop
✓IPMX ⇔ ST 2110 Native Interop
✓R&D (Non-Broadcast Developers)

✓Developer Kits Shipping

✓Networking Equip. Vendors Adding IPMX Profiles

Already Mature

Shipping and Live Operation (Last 3+ Years)

Completed Technical Recommendations

Definition and Standardization for:

- Simplified Asynchronous Timing (optional PTP) → TR10-1
- Dynamic connections (EDID, HPD, Display ID, InfoFrames) → With AMWA at the moment
- Copy protection (HDCP/HKEP) → TR10-5
- ProAV Audio Formats → TR10-3 (Submitted)
- HDR10 and HDR 10+ → TR10-XX (In progress)
- Uncompressed Video → TR10-2
- NMOS → TR10-8

AES 67
Audio Over IP
SMPTE ST 2110-10
Timings & Definitions
SMPTE ST 2110-20
Uncompressed Video
SMPTE ST 2110-21
Packet Pacing
SMPTE ST 2110-30
AES 67 Audio
SMPTE ST 2110-31
AES3 Audio Transport
SMPTE ST 2110-40
Ancillary Data

Timeframe

Complete by Summer 2022:

Momentum for Open Standards: AV over IP

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AVNATION

The **excitement** around IPMX is **everywhere**…

SMPTE
VSF VIDEO SERVICES FORUM
AMWA Networked Media. Working.
AIMS Alliance for IP Media Solutions

2018
Pro AV WG Starts
ST2110 + NMOS + additional functions

SOUND&COMMUNICATIONS
COMMERCIAL AV TECHNOLOGY AND APPLICATION

[IPMX] will give AV integrators virtually **limitless freedom** to customize AV-over-IP systems…

Integrated Systems Europe

IPMX IP MEDIA EXPERIENCE

IPMX brand launched at ISE 2020 Show
(Feb 2020)

If you're in AV, **IPMX** is an acronym you **need to know**.

SCN SYSTEMS CONTRACTOR NEWS

AIMS Alliance for IP Media Solutions

- AIMS Pro AV Working Group dramatically increases promotion

VSF VIDEO SERVICES FORUM
AMWA Networked Media. Working.

- VSF and AMWA become involved in new technical specifications

MAGEWELL®
joined AIMS for IPMX
(June 2020)

IPMX offers a range of **advantages to professional A/V**…

AVSIGNAL

infocomm
OCT. 27-29, 2021 · ORLANDO, FL

IPMX IP MEDIA EXPERIENCE

More general acceptance of the need for IPMX by InfoComm 2021 attendees and exhibitors
(Oct 2021)

ANALOG WAY®
PANDUIT®
joined AIMS for IPMX
(Mar, Aug 2021)

infocomm

IPMX IP MEDIA EXPERIENCE

Multi-vendor Interop at InfoComm 2022
(June 2022)

intel
NETGEAR
XILINX®
joined VSF for IPMX
(Feb 2022)

BARCO
joined AIMS for IPMX
(Apr 2022)

SOUND&VIDEO CONTRACTOR

[IPMX] will be transformative.

Want to learn more?
www.aimsalliance.org

Steve Reynolds, Chairman AIMS

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