AIMS
Alliance for IP Media Solutions

AIMS Update

Amsterdam NL
September 2022

Our 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
Alliance for IP Media Solutions

AIMS Members

AIMS Organization

Full Members

Associate Members

Partners

Technical Working Group

Education Working Group

Marketing Working Group

Audio Subgroup

ProAV Subgroup

AIMS
Alliance for IP Media Solutions

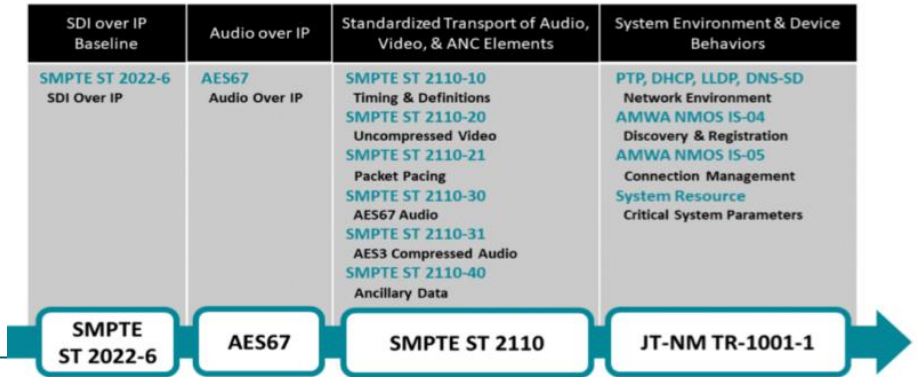
The AIMS Broadcast Roadmap

SDI over IP Baseline	Audio over IP	Standardized Transport of Audio, Video, & ANC Elements	System Environment & Device Behaviors
SMPTE ST 2022-6 SDI Over IP	AES67 Audio Over IP	SMPTE ST 2110-10 Timing & Definitions SMPTE ST 2110-20 Uncompressed Video SMPTE ST 2110-21 Packet Pacing SMPTE ST 2110-30 AES67 Audio SMPTE ST 2110-31 AES3 Compressed Audio SMPTE ST 2110-40 Ancillary Data	PTP, DHCP, LLDP, DNS-SD Network Environment AMWA NMOS IS-04 Discovery & Registration AMWA NMOS IS-05 Connection Management System Resource Critical System Parameters
SMPTE ST 2022-6	AES67	SMPTE ST 2110	JT-NM TR-1001-1

AIMS
Alliance for IP Media Solutions

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)
• AMWA IS-08	Stable	
• VSF TR-07	new	
• VSF TR-08	new	
• VSF TR-10-x (IPMX)	new	



Audio Subgroup

Purpose

- Provide a forum within AIMS to focus on issues and activities that are specifically related to audio
  - AES67 Revision
  - Audio devices in IPMX
  - Audio content in Education Library

Upcoming Activity

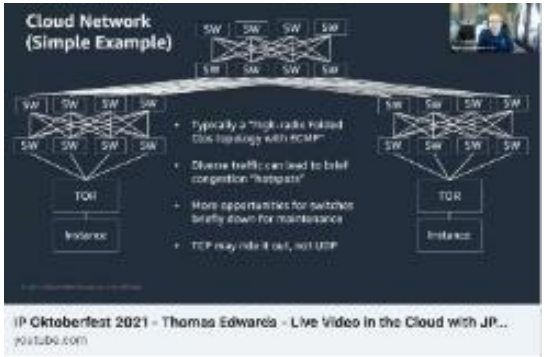
- Partnering with the AES on a “Media over IP” Pavilion at the AES NY Convention in October
  - This convention will run in parallel with NAB NY (sharing the same exhibition show floor)
  - Presentation Theater will be the focus of the pavilion
  - Exhibit Stations will be available, allowing companies to have a presence at the convention for a very reasonable cost
  - Exhibit Station exhibitors will be allocated presentation slots in the theater

AIMS
Alliance for IP Media Solutions

AIMS Initiatives – Fostering Adoption

AIMS Initiatives – Fostering Adoption

- Live Video Production in the Cloud
- Real-Live Behavior of Switches
- IP Systems – The Big Picture
- IPMX: The Emerging AV over IP Open Standard



IP Oktoberfest 2021 - Thomas Edwards - Live Video in the Cloud with JP...


IP Oktoberfest 2021 - Stefan Ledergerber - Real-Life Behaviour of Swit...

IPMX
IP MEDIA EXPERIENCE

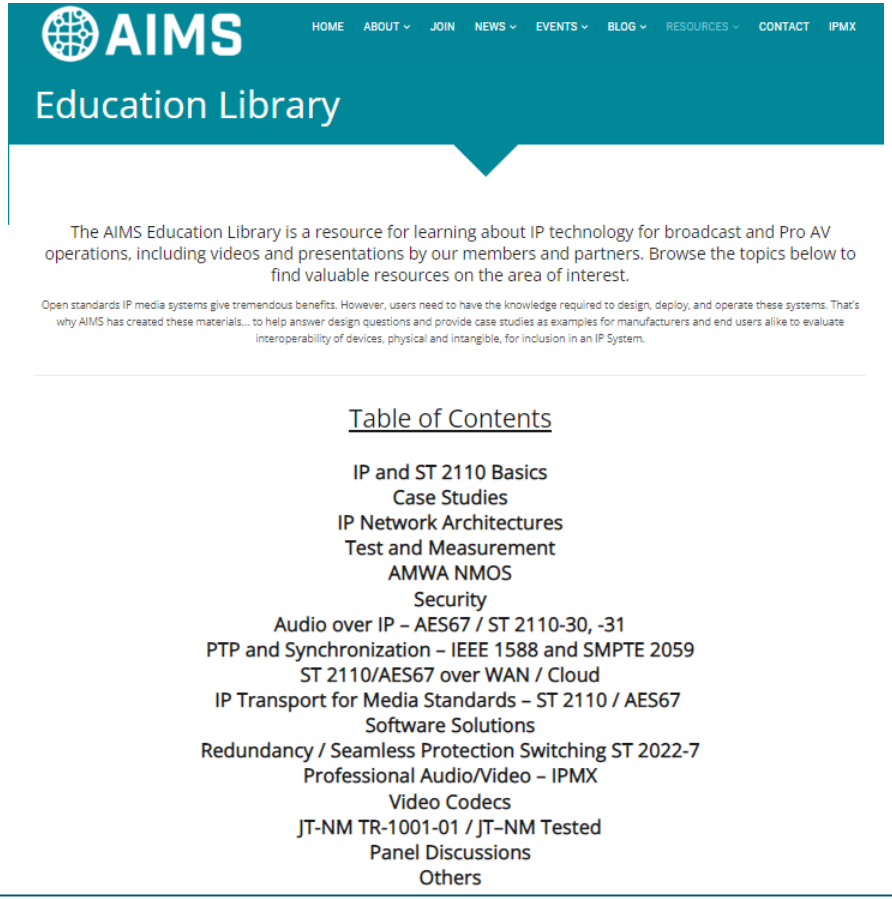
AIMS
Alliance for IP Media Solutions

Education Working Group

- Launched in early 2022
- Efforts to date have been to make existing content more accessible
  - Presentations from past events including IP Showcase, AES Conferences, IP Oktoberfest, Techfest and Summer Sessions
- Two major efforts ongoing in the group:
  - Metadata for improved searching and categorization
    - Key metadata defined
    - Populating all content has had first pass, but could use enriching over time
  - Define the presentation and user experience on the AIMS website for users
    - Definition is coming together
    - Next steps: Engage with web designers to determine how to realize the vision

AIMS
Alliance for IP Media Solutions

EWG on the Website (www.aimsalliance.org)



Momentum for Open Standards AV over IP

AVNATION

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

SMPTE

VSF

AMWA

AIMS

2018
Pro AV WG Starts
ST2110 + NMOS +
additional functions

Integrated Systems Europe

IPMX IP MEDIA EXPERIENCE

IPMX brand launched at ISE 2020 Show (Feb 2020)

SOUND&COMMUNICATIONS
COMMERCIAL AV TECHNOLOGY AND APPLICATION

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

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

SCN SYSTEMS CONTRACTOR NEWS

AIMS

- AIMS Pro AV Working Group dramatically increases promotion

VSF AMWA

- VSF and AMWA become involved in new technical specifications

MAGEWELL joined AIMS (June 2020)

AIMS Alliance for IP Media Solutions

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 (Mar, Aug 2021)

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

infocomm

IPMX IP MEDIA EXPERIENCE

Multi-vendor Interop at InfoComm 2022 (June 2022)

intel

NETGEAR

XILINX

joined VSF (Feb 2022)

BARCO

joined AIMS (Apr 2022)

SOUND&VIDEO CONTRACTOR

[IPMX] will be transformative.

AIMS
Alliance for IP Media Solutions

InfoComm 2022

12 company interop of ST 2110 and IPMX standards-based equipment

11 Nextera Video

Developer platforms receiving and displaying content from other nodes in demo

10 ARISTA

Managed switches running all the ST 2110 media in this demonstration

9 intoPIX

JPEG-XS IP provider decoding streams from this demonstration in software

8 MACNICA

Software and hardware platforms encoding and decoding IPMX in demo

7 CISCO

Managed switches running all the uncompressed IPMX media in this demonstration

12 NETGEAR

Managed switches running all the compressed media in this demonstration

6 MEGAPIXEL

Directview LED wall processors receiving native IP content from the other partners in the booth

5 matrox

Uncompressed and compressed IPMX encoding and decoding equipment

4 Gateways

Equipment for converting between different protocols to/from IPMX

3 stagenet

Management System and UX leveraging NMOS and SMPTE standards

2 ROSS

Transmitting and receiving content being used in both ST 2110 and IPMX networks

1 intel

Live transcoding of ST 2110 uncompressed to ST 2110 JPEG-XS

AIMS InfoComm 2022 IPMX Demo

New (first public showing) IPMX progress items:

- Transferring ST 2110 (on PTP network) content to IPMX nodes (network with or without PTP)

  (Example: Stadium/arena content from broadcast room feeding network television + jumbotron, also shared "natively" (no conversion to baseband) with all IPMX stations throughout the stadium/arena (digital signage, private booths, etc.)
- Opposite: IPMX network content ➔ ST 2110 network nodes

  (Example: Increasing new experiences in broadcast by bringing "AV" nodes into the broadcast room. For example: cameras in stadium/arena celebrity private lounges available with nearly no latency using native AV to broadcast network compatibility)
- IPMX hardware and software senders and receivers all sharing content "at performance"
- More emerging IPMX⇔ Pro AV gateways; will be showing IPMX ⇔ HDBaseT gateways at InfoComm
- <1 millisecond glass-to-glass latency live media over IP
- First real suite of standards and technical recommendations across "multiple" video workflows

  (Uncompressed and Compressed)
- Developer platforms (Macnica, Nextera, more …)
- Processor support (AMD, Intel, etc.)

AIMS
Alliance for IP Media Solutions

What's Next?

- IPMX (VSF TR-10)
- NAB NY
- New EWG content and UI at aimsalliance.org