
Alliance for IP Media Solutions (AIMS)

What is the Alliance for IP Media Solutions (AIMS)?

The Alliance for IP Media Solutions is a trade organization founded by leading companies to foster the adoption of industry standards to help facilitate the broadcast and media industry's transition from SDI to IP.

What is AIMS' main charter?

AIMS is designed to drive industry-wide support of standards that foster the transition of the broadcast and media industry from SDI to IP via three primary means:

1. Promotion of open standards in the marketplace for the interoperable exchange of uncompressed audio, video and ancillary data streams over an IP network infrastructure
2. Facilitation of activities that accelerate the education, development, and promotion of products supporting these open standards
3. Facilitate the discussion and acceleration of new standards through the various standards bodies by providing focused support, commitment and testing of the proposed standards in real world environments

Is AIMS a new standards body?

No, AIMS is a trade association that will be working closely with the Video Services Forum. The VSF, with the support of standards organizations such as SMPTE and the EBU, has worked out a series of Technical Recommendations critical to achieving the goal of providing the broadcast industry with a ubiquitous and common interface. These recommendations, which have been deliberated, developed and recommended by a group of over 30 broadcast equipment suppliers and broadcasters, provide a strong technical roadmap for the future. AIMS has been formed to complement the work of the VSF through the further promotion of standards and the facilitation of collaboration between equipment manufacturers.

Why is multivendor interoperability important?

For years, the Serial Digital Interface (SDI) has served as the "lingua franca" of uncompressed video in broadcast facilities. Any piece of equipment supporting SDI could connect with any other piece of equipment, regardless of supplier, that also supported this standard. It is imperative for the industry to maintain a common, ubiquitous set of protocols and practices for the transmission of video and audio in the IP realm. Widespread interoperability, as opposed to single-vendor proprietary approaches, ensures ongoing innovation, deployment flexibility and a competitive marketplace.

Which standards will AIMS be promoting?

The current AIMS roadmap for IP in the broadcast industry includes the following standards:

1. **SMPTE 2022-6.** AIMS advocates the continued use and adoption of this standard as a baseline for interoperability.
2. **AES67.** The leading standard for audio over IP.
3. **VSF TR-04.** This is a technical recommendation to use two existing standards: SMPTE 2022-6 for video with embedded audio and AES67 for separate IP addressable audio streams. In VSF TR-04, AES-67 effectively operates as the “discrete audio” equivalent in IP. AES67 is already in use by numerous audio companies. The combination of these two standards into a VSF Technical Recommendation (VSF TR-04) gives the broadcast industry a clear path to separately addressable IP audio in a commercial off-the-shelf (COTS) IP switch that will not require additional conversion from a proprietary IP standard to MADI. With interoperability tests beginning in February of 2016, and with the accessibility of AES67 technology given as a proven standard, broadcast vendors will begin deploying VSF TR-04 systems in the first half of 2016.
4. **VSF TR-03.** This is the final step in the seamless evolution of standards. TR-03 is the transport of uncompressed elementary stream media over IP. TR-03 is very much about essence and separating out the media type, whether video, audio, metadata or timing events. VSF TR-03 improves upon VSF TR-04 by replacing the SMPTE 2022-6 portion of VSF TR-04 with an improved method of distributing video data. With SMPTE 2022-6, the entire video stream must first be de-packetized and then the audio signal must be de-embedded from the SDI stream. When processing is completed, the audio must be re-embedded in the SDI before the SDI signal can once again be packetized. With TR-03, audio, video and metadata are individually packetized into separate IP streams. Only the packets containing audio samples are required to be de-packetized before they are processed, and then re-packetized back into an IP stream. Not only does this process remove the need for audio embedding and de-embedding, it also greatly reduces the volume of packet traffic that needs to be routed to the audio processor. As an added benefit, only the active video pixels of TR-03 need to be packetized, thereby reducing the amount of network traffic generated by uncompressed video. The format of the audio stream is still AES67. Video is packetized using RFC 4175, which has been a standard since 2005 and is widely used today. For audio, VSF TR-03 uses AES67, the standard accepted by audio equipment suppliers for high-performance audio over IP, which provides flexibility and capacity beyond the limitations of embedded audio. Again, because these technologies are well understood, it is projected that systems using VSF TR-03 will be available in 2016.

What is the chief objective of AIMS?

The replacement of SDI with IP is critical to the future success of the broadcast industry. The transition to IP can enable new business models and make the broadcast industry stronger and more



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competitive. AIMS was founded to further the deployment and adoption of standards that accelerate the broadcast and media industry's transition to a more agile and flexible environment. AIMS offers an open and interoperable alternative to proprietary approaches that will lengthen the transition cycle and burden media companies with additional costs.

Membership

Please join our efforts now by contacting Tina Lipscomb at tina@aimsalliance.org for more information.