OPPORTUNITY

The technology in large conference rooms is designed to allow presenters to share content from multiple source devices to local and remote viewers. To provide the ideal experience for both local and distant viewers, the conference room AV system needs to be able to optimize the experience for both sets of meeting attendees.

Local and remote attendees need to be able to hear audio from a variety of source devices. In order to provide optimum audio to the speakers in the room, local audio will also require digital signal processing to control volume and optimize EQ for the space. Once optimized, the audio is routed through an amplifier to the room speakers.

To be sure remote attendees can hear everyone, the system typically requires four or more microphones to evenly cover anyone in the room that’s speaking. The solution should provide suitable connectivity and automixing for that requirement as well as acoustic echo cancellation (AEC) to ensure remote callers don’t experience the “echo” often encountered when a microphone in the conference room picks up far-end audio coming through the signal. Optimized audio being sent to remote participants is output over USB for use in web conferencing.

SOLUTION

Providing optimum audio for both sets of users typically requires a rack of gear and a complicated setup. However, HARMAN offers a complete solution for this application with minimal complexity and advanced features, leveraging the AMX Acendo Core Meeting Space Collaboration System, AMX Incite Digital Video Presentation Switcher, and BSS DCP-555 Digital Conferencing Processor. Source devices (including the AMX Acendo Core) are connected to AMX Incite. Video is routed to Incite’s mirrored HDMI and AMX DXLite outputs for monitoring and room display. Audio for the selected source is routed from one of Incite’s auxiliary audio outputs into the BSS DCP-555. Audio from the source and microphones are combined and optimized. Remote audio is connected to the AMX Acendo Core via USB. Local audio is sent from the DCP-555 to Incite as an auxiliary audio input. Incite then routes that audio to the built-in amplifier for room audio.
BSS DCP-555 Digital Conferencing Processor
This audio processor designed specifically for conferencing applications provides multiple connectivity options, acoustic echo cancellation, and more. In this application, the DCP-555 provides microphone connectivity and optimization, automixing of microphones and room audio, acoustic echo cancellation, USB connectivity for web conferencing, and line output for in-room speakers.

AMX Incite All-in-One Presentation Switcher
This integrated presentation switcher provides video switching with transitions, BSS audio signal processing, Crown DriveCore amplification, and AMX NetLinx room control. In this application, Incite provides source audio and video switching, with seamless video transitions between sources. Incite also drives in-room audio, leveraging the built-in amplifier with HARMAN's proprietary DriveCore technology.

AMX Acendo Core Collaboration System
This meeting place collaboration system includes web conferencing, document viewing, and wireless screen sharing in an easy-to-use platform. In this application, Acendo Core provides an easy method for meeting attendees to begin a web conference, wirelessly share content from multiple devices at once, and view presentation materials using the built-in document viewers.