

# Axis network audio at the heart of Mecaro's high-quality integrated-managed broadcasting system.

Benefits from smart functions, operational efficiency and scalability.



**Organization:**

Mecaro

**Location:**

Pyeongtaek, South Korea

**Industry segment:**

Industrial

**Application:**

Public address,  
background music

**Axis partner:**

Darwin System

## Mission

Mecaro is a KOSDAQ-listed company that manufactures heater blocks and chemical products for semiconductors. The public address (PA) system in Mecaro's original office (former headquarters) was an analog system adopted in the early 2000s. As business grew, the existing system needed to be expanded in line with the construction of a new office building but proved to be difficult and required a great deal of investment. Broadcast scheduling complexity, sound quality, and amplifier limitations were also pointed out as drawbacks. What's more, because the speaker and amplifier cables were connected using ring terminals, a short circuit or disconnection at a certain point resulted in broadcast stoppages or output disruptions on all connected speakers after the point of failure.

## Solution

While implementing a central management system (CMS) for the new building that integrated and managed various systems (electrical, access, fire protection, CCTV, elevator, etc.), Mecaro sought to also integrate the PA system.

To this end, comprehensive consideration was given to scalability, quality, technology, ease of management, after-sales support, implementation and maintenance costs, as well as compliance with PA standards. Through consultation with Darwin System, an Axis partner, Mecaro decided to deploy the latest network audio solution by Axis.

## Result

With the Axis network audio solution, Mecaro established a stable and efficient high-quality PA system. The entire system was able to be controlled via a single intuitive administrator interface, thereby increasing operator productivity due to easy broadcast scheduling and zone-specific broadcasting. Furthermore, the CMS integration significantly improved emergency response capabilities, and even employee satisfaction was enhanced thanks to the system's excellent sound quality. When needed, system expansion will be easy and at reasonable cost because only speakers need to be installed to the already-constructed network without extra cabling and devices.

**“We are very satisfied with our broadcasting system using Axis network audio solution, not only for its outstanding audio quality but in terms of management, technology, efficiency, and scalability. If you need to integrate system operations using CMS, you must build this system. The TCO is very reasonable, especially considering the task of deploying a new broadcasting system, from installation and operation to future expansion.”**

**Dong-min You, Head of IT, Mecaro**

### Highly scalable PA system without loss of quality

For the PA system in its new office building, Mecaro deployed 125 network ceiling speakers (AXIS C2005) and 32 network horn speakers (AXIS C3003-E), as well as Darwin System's proprietary audio management server (Sound Master) and user console (Sound Desk). A variety of functions were implemented, such as easily controlling all speakers, setting up broadcast zones by tying individual or multiple speakers together, managing real-time, event-based, and scheduled broadcasts, and sending specific sound sources to specific zones with just one click. In addition, an interconnected fire detection system module was added, which is capable of receiving a detection signal from a monitoring receiver.

### Approved for emergency broadcasting facility construction using special cables

South Korea's Enforcement Decree of the Fire Safety Act still lacks standards for emergency broadcasting facilities using a network speaker, and regulations for network cable usage are unclear with regard to the wiring of emergency broadcasting equipment. Because existing network cables were unable to be used, Mecaro eventually solved the problem by creating and using a special Cat 6 cable with the active support of LS Cable & System. The newly-developed cable passed the heat-resistance test required by the Fire Safety Act and has been approved for use by the National Fire Agency. The local fire department also approved the construction of an emergency broadcasting facility using this cable.

### Improved work environment, increased productivity

Mecaro was able to implement more effective workplace broadcasts via speaker grouping, individual/group speaker control, and broadcasting scheduling automation.

Workplace atmosphere and employee satisfaction were greatly improved by broadcasting different announcement or background music by speaker group. Music can be played in the cafeteria, and broadcasting can be muted in the meeting room. Additionally, productivity was able to be significantly increased by automating broadcast scheduling and thereby minimizing time required for repetitive tasks.

### Improved manageability via CMS integration

Axis network audio solution can be connected and integrated into a variety of devices, offering significant advantages over existing systems in terms of maintenance and management. Because the solution is based on open standards, it can be easily incorporated into a CMS for building integration control. Various announcements can be addressed in accordance with building management, enabling quick responses in emergency situations. In case of fire detection, for example, “Fire in the 4th floor executive room, take immediate action,” can be immediately broadcasted through speakers while at the same time notifying the administrator's mobile device.

“As our PA system became outdated, the broadcast quality deteriorated. New office buildings and factories continued to be built, and the need for a new audio system emerged,” said Dong-min You, Mecaro's head of IT. He added, “We compared analog, digital, and network broadcasting systems and decided on Axis network audio system that provided an economical solution with clear sound quality and smart functions. We plan to adopt the same PA system when we deploy our Eumseong factory CMS and will certainly select Axis solution when constructing a new office building in Pyeongtaek.”



#### About Mecaro - [www.mecaro.com](http://www.mecaro.com)

Founded in 1999, Mecaro ([www.mecaro.com](http://www.mecaro.com)) is a KOSDAQ-listed (241770) company that manufactures heater blocks, which are a core component of CVD and ALD processes in the semiconductor/FPD industry, and semiconductor-related chemicals. The company achieved sales of KRW100 billion in 2018. Mecaro is headquartered in Pyeongtaek and operates an additional office nearby, as well as a plant in Eumseong.



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