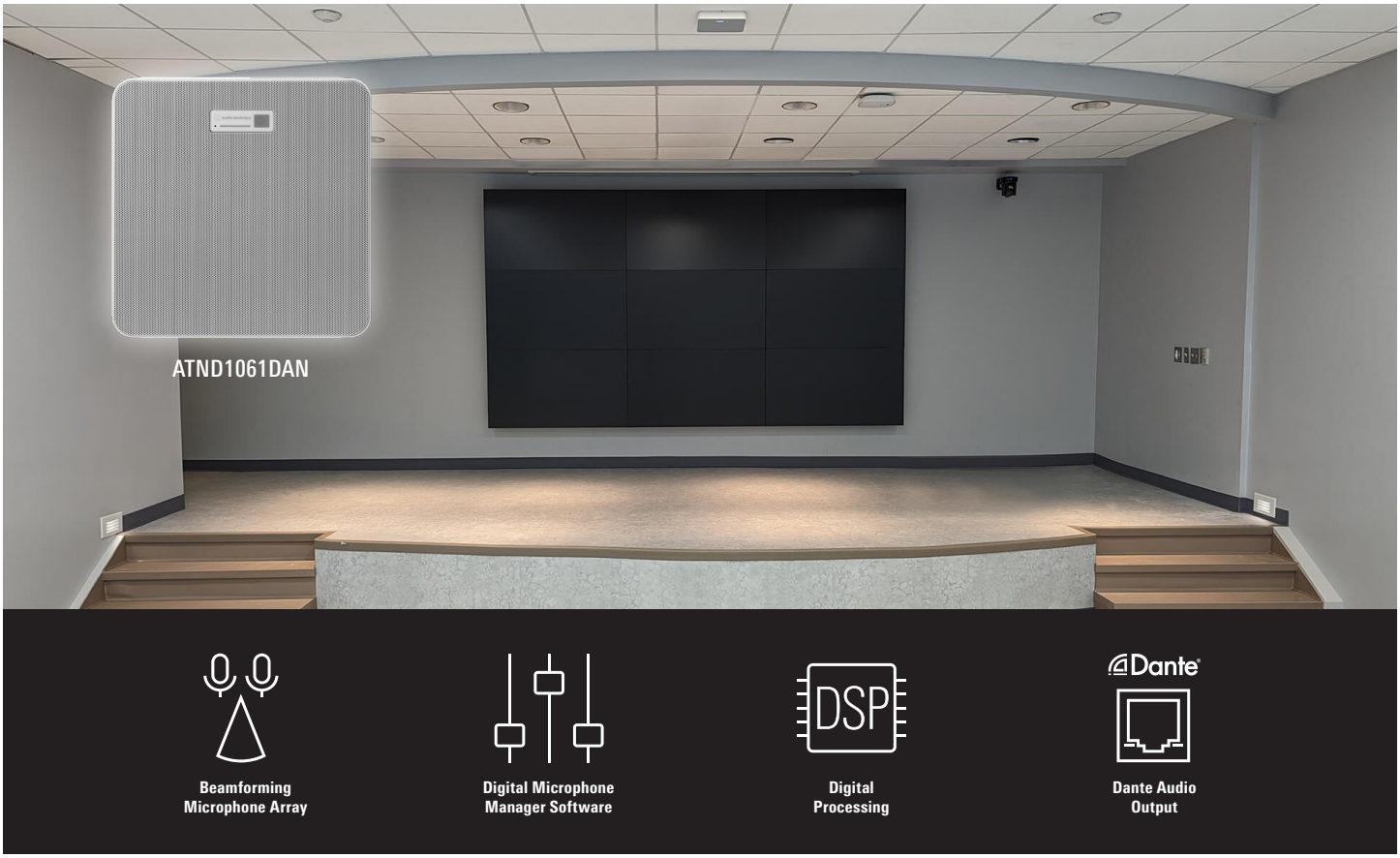
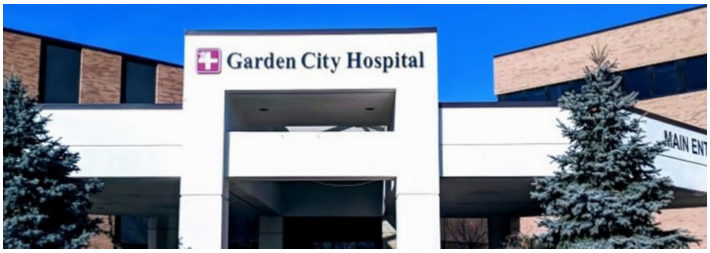
/ ATND1061DAN — Client Success Story

How a hospital retooled its training AV following a flood



– **Industry:** Healthcare
– **Location:** Michigan
– **Client:** Garden City Hospital
– **Project:** Update, and expand the audio and visual infrastructure of the conference room, training, and auditorium spaces – eight rooms in total – in the hospital basement following flooding.
– **Project participants:** Audio-Technica, Tech Automation, Online Manufacturers Representatives, Garden City Hospital
– **Solution:** Audio-Technica ATND1061DAN Beamforming Ceiling Array Microphone

/ A Metro Detroit Hospital
The Client



Garden City Hospital is a nationally ranked, award-winning clinically led hospital that's been an integral part of its community since 1947. After chest-deep flood water catastrophically damaged the hospital's basement-located meeting and training facilities, Garden City reached out to Troy, Michigan custom electronics and integration firm Tech Automation to rebuild and modernize its tech facilities.

/ Modernizing AV and Integrating Into Various Rooms
The Challenge

Not only was the previous system ruined, but it also was inadequate for modern meeting needs. The hospital needed a much larger space for meetings and presentations. With no one single space available, many smaller spaces needed to be interconnected to function as one.

Tech Automation was challenged to deliver a system that integrated the rooms, and added AV infrastructure where there was none while giving presenters freedom of mobility, the capability of capturing speakers' voices in a large areas, and simplified operation.

/ Audio-Technica ATND1061DAN Microphone
The Solution

Ceiling mounting a single ATND1061DAN microphone array in five of the rooms, and multiple ATND106DANs in other rooms for a total of 13, provided the performance and coverage needed to transparently pick up presenter and meeting participant voices as needed.

Q-SYS CERTIFIED TECHNOLOGY

Additional system gear includes Q-SYS processing, control and amplification feeding ceiling-mounted speakers, PTZ cameras, and USB soundbar and cameras for visual and audio linkage of rooms.

"participants can still hear that person talking regardless of where they are"

— Sebastian May
Programmer/System Engineer
Tech Automation

With the conventional fixed location mics used prior to the upgrades to the auditorium, if the speaker needed to move within a room, "they basically just had to talk louder," says Tech Automation Programmer/System Engineer Sebastian May. "Now a presenter is able to roam about and talk in any room and participants can still hear that person talking regardless of where they are in that room. And that's because of the beam forming tech that's behind the Audio-Technica microphones. Together the Q-SYS system and the Audio-Technica microphones allow us to bridge rooms together into the auditorium so they can use all eight of the rooms together and watch and listen and talk to each other without leaving the hospital at all.".

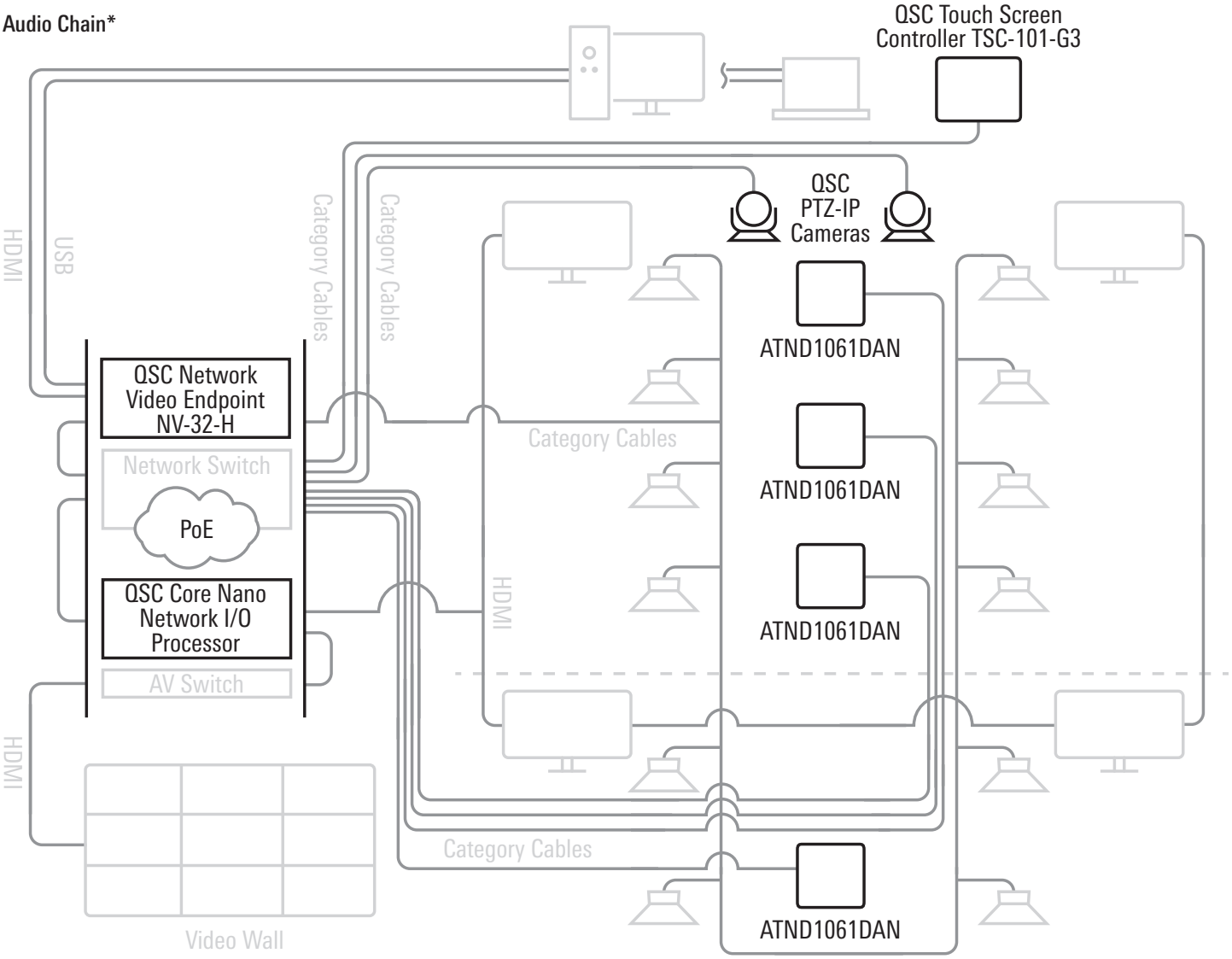
/ Garden City Hospital Auditorium and Training Rooms

The Installations

The new AV installation included the following components:
- 13 ATND1061DAN Beamforming Ceiling Array Microphones
- 1 Q-SYS Core Nano audio, video and control (AV&C) processor

Additional infrastructure:
- Q-SYS AV system accessories including touch screen control panels, PTZ cameras, and audio amplification
- Ceiling speakers
- Video displays including a 9-screen video wall
- Gigabit networks switches with POE
- Power distribution and conditioning

Audio Chain*



*Indicates basic setup

/ Multiple Beamforming Ceiling Array Microphones
The Technologies

The client "was looking for something that was free of wires" for microphones to achieve flexibility and mobility in the spaces, says May, "which is where the Audio-Technica ATND1061DAN microphones came into play for their capability to cover a large area with a small physical footprint."

Each ATND1061DAN has six individual output channels, which, collectively, can be configured with up to 32 user-defined microphone pickup zones, providing the flexibility to cover a wide variety of room sizes and meeting types. Room configuration, zone setup, and other settings are handled through the user-friendly Digital Microphone Manager software application. Across all the output channels, the microphone's 90-degree orthogonal beams are capable of focusing on a particular point in space, preventing the pickup of unwanted noise. Proprietary voice activity detection (VAD) technology enables the microphone to discern between a voice and unwanted noises such as paper shuffling.

Each ATND1061's Output Channel 1 can be configured with 16 user-defined Coverage Zones, and the pickup beam will track and keep the microphone focused on the voice of a speaker, whether they are stationary or moving about within a zone. Coverage Zones can be helpful in picking up either non-priority or unplanned participants.

Output Channels 2–6 can be configured with 16 user-defined Priority Zones to ensure priority is given to participants in a room's known participant locations, whether the participants are stationary or moving about.

The ATND1061DAN microphones met the client's desire for mobility and flexibility without visible cabling, or any need for meeting participants to give any thought to the microphone system.

> "Super easy – it's all via the network"
>
> — Sebastian May
> Programmer/System Engineer
> Tech Automation

May says the system integration was "Super easy – it's all via the network. Nothing else needed besides a CAT 6 run to each of the microphones and the network handles the rest. The whole system is connected to a single Q-SYS Core Nano. We use the ATND1061DAN's Dante capability to connect the microphone audio to Q-SYS. The Q-SYS touch panels allow you to control the microphones directly from the screen. You can increase the gain, mute, et cetera."

Important features that influenced their technology choice for this project include:
- Broad coverage with intelligent speaker tracking
- Zone management
- Small footprint (roughly the size of a wireless access point)
- Dante integration
- Q-SYS control compatibility
- POE for ease of installation
- Sonic fidelity

/ Any Speaker Can Be Heard From Any of the Eight Rooms

The Impact

The microphone system is transparent to the meeting and training participants. Under unified control, the hospital can bridge the rooms necessary to hold all its meetings internally, with natural interactive participation from any room to any other.

The room's new solution:

- Unifies all spaces eliminating the need for outside rental space
- Allows participation by any attendee in any room
- Is easy to use
- Requires no event set-up beyond a few touch screen taps
- Needs only CAT 6 connection to the network switch to integrate microphones
- Eliminates RF and battery management
- Provides a remote presenter option
- Allows freedom of movement for participants
- Integrates with unified Q-SYS control and signal distribution

The Audio-Technica ATND1061DAN microphones are an integral element in the Garden City Hospital's newly upgraded facility, satisfying the hospitals desire for presenter and attendee participation with ease. Speakers do not have to worry about their position within the spaces to contribute. The mics are effectively invisible to participants visually and operationally. The transparency of the microphones' operation is facilitated by compatibility to the system's Q-SYS control and signal distribution network.

The hospital's satisfaction with Tech Automation's design and implementation, and the performance of the system has resulted in additional work for Tech Automation within the facility.

For a high performance, easy to use microphone solution for meeting spaces, check out Audio-Technica's ATND1061 Beamforming Ceiling Array Microphones.