Audio-Technica 3000 Series Wireless at Licking Heights High School

Columbus is not just Ohio’s state capital but increasingly a technology hub, with Google, Amazon, Facebook and others establishing high-tech data centers in the area. As Columbus grows, Licking Heights School District, in one of the city’s last remaining rural suburbs, has also expanded, recently completing a new ultra-modern high school with a large, multi-purpose auditorium that has been outfitted with nearly 50 channels of 3000 Series wireless microphones from Audio-Technica, a leading innovator in transducer technology for over 50 years.

“They wanted to be able to do anything from a small assembly to large theatrical productions in that space,” says Jason Norrod, co-owner of Central Ohio Audio Video (COAV), a Columbus-based integration firm that supplied and installed the equipment. “The week after we finished the installation, they had their first production in there. So we had a very short time cycle.”

It was not only the quick turnaround time that was challenging, Norrod reports, but also the large number of RF channels required. To confirm that so many channels could operate in the available frequency spectrum, COAV worked closely with Audio-Technica to consult on frequency allocation and ensure that when the system was installed, it would work right from the get-go. Norrod and the COAV team spent

about three hours going through the room, looking to see what frequencies would work and make sure they could fit all of them in the space.

As for the mix of 3000 Series products, the bulk of Licking Heights High School's order was for head-worn microphones, due to the nature of the performances that would take place throughout the school year, Norrod says. "We needed to provide Licking Heights with a microphone solution that could handle both vocals and spoken word. With A-T head-worn mics, it's a little bit easier for someone who's singing or doing a speaking part to hear, and for them to be able to move around the stage or auditorium freely without any kind of issues."

In total, COAV supplied 49 A-T 3000 Series wireless systems consisting of receivers and body-pack transmitters with either omnidirectional condenser headworn mics or cardioid condenser lavalier mics, plus several handheld cardioid microphones.

Because the COAV team was under extremely tight time constraints, they selected the operating frequencies prior to installation. Norrod notes, "We unboxed and manually programmed everything before we went out to the jobsite to do the installation. As we were installing, it was all marked and put in place. We knew exactly what frequencies would work in there, and they did."

Norrod and the team also plotted the optimum locations for the RF Venue distributed antenna system, a common component of installed wireless systems these days, in advance of arriving at the site. "Since the area where Licking Heights is located is expanding and rapidly becoming a technology hub, in order to future-proof the installation for possible dropouts or interference as the frequency spectrum in that area becomes more crowded, we installed a distribution system and put a proper antenna in the auditorium so that we get good signal strength throughout that facility," he says. "It certainly added to the wiring requirements, but with the ongoing growth of the community around Licking Heights, it was the right move to ensure strong signal this year and beyond."

The outputs of the Audio-Technica wireless receivers are plugged via XLR into Dante-networked expansion products in the audio room that interconnect with an Allen & Heath DX Series mixing console over CAT 6 cables, Norrod says. "That way they're able to control everything without having to run a whole lot of really extensive line runs everywhere."

A school district such as Licking Heights expects a seven- to 10-year lifecycle for any AV equipment it purchases, Norrod says. “The school district has done a good job of trying to stay ahead of technology and has always worked hard to pick good items, like this. They pick quality over price almost every time.” The 3000 Series offers a good return of investment, he says. “That's why we use them. They just work, and we don’t have to go back and explain to the client why something wore out early when they spent a lot of money on it.”

Another reason why the 3000 Series is his go-to wireless product, in addition to the product line's price and performance, is the ongoing support they have received from Audio-Technica. "The support that we've gotten through the years from A-T has been truly collaborative. They've been able to help us accomplish jobs, working as a team together to get the proper solutions for the client. We've had some really fun installs in the past couple of years, putting 3000 Series systems into some stadiums and schools in the area." Audio-Technica Application Engineers provide this service to any audio professional that requires assistance with large numbers of frequency coordination.

Despite the time constraints, and thanks to good advance planning, "It was a seamless experience and it worked very well," he says of the Licking Heights High School project. "Working closely with Audio-Technica, we were able to plan, deliver and install this system in a very short period of time, and our client really appreciated that."

Ultimately, everything worked as planned, Norrod says. "The district is really happy with the results, making sure we didn't miss their theatrical performance. It was basically the school district's first time showing off this very expensive building that they raised taxes to build. So there was great concern for them to make sure that it was done well, and they've had a genuinely good experience with it. We couldn't have done that without Audio-Technica's help, making sure that this job was a priority for them, too."

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