University of Central Oklahoma continues a legacy of innovation with Q-SYS

Edmond, OK

Founded in 1890, the University of Central Oklahoma (UCO) has a long history as one of the state’s oldest institutions of higher learning. That being said, they’re no strangers to innovation. From being the first major university in Oklahoma to be one hundred percent powered by wind energy, to recently electing their first female president, UCO embraces a legacy of pushing boundaries. And when the university AV team faced their own challenge with an ambitious audio, visual and control timeline, they tackled it head-on.

“QSC not only offered a suite of solutions that fit our requirements and budget, they also worked with us to successfully deploy within a very tight timeline.”

Caleb Howard
Audio Visual Design Engineer, University of Central Oklahoma
Challenges

The University’s commitment to their 14,000 students was proven in the summer of 2020, when UCO Leadership approved a campus-wide upgrade of their classroom audio, visual and control infrastructures. In preparing to meet the needs of the incoming student body, UCO themselves would need to transform... with the start of term quickly approaching. “We had less than a month to bring video conferencing capabilities to over 100 classrooms in fifteen different campus buildings. A large portion of these spaces had no pre-existing AV control system. We were looking for solutions to standardize deployment but allow for flexibility in how these classrooms would be used. It was also important for everything to be on the UCO network for management and monitoring,” explained Caleb Howard, Audio Visual Design Engineer of University of Central Oklahoma. “QSC not only offered a suite of solutions that fit our requirements and budget, they also worked with us to successfully deploy within a very tight timeline.”

Standardization
They needed to create a consistent classroom deployment for long-term scaling objectives – namely uniform training and increased adoption and support.

Platform Independence
In every classroom, it was a necessity to accommodate a variety of teaching styles and web conferencing solutions run through dedicated room PCs.

Standard Network
They required a system equipped with monitoring and support, that ran on their centralized IT network rather than a separate AV network.

Photos provided courtesy of University of Central Oklahoma
Solutions

Standard Deployment & Network

Previously the AV team worked within a patchwork of systems. The campus upgrade afforded them the opportunity to standardize their infrastructures, starting with leveraging a building-wide Q-SYS Core processor for each targeted space. In larger facilities, such as their School of Business, the team chose the Q-SYS Core 510i, integrated processor to control over a dozen classrooms. For smaller installations they selected the Q-SYS Core 110f processor, which has its focus on small-to-medium spaces. Both Q-SYS Core processor tiers leverage Q-SYS OS, allowing them to operate on the same software while presenting a single learning curve, regardless of the Core’s size or complexity. Both Cores also operate on a standard network using standard IT protocols, allowing the team to meet the requirement of running on the existing UCO network.

A Great Experience, Remote or In-person

The team worked toward creating predictable, reliable infrastructures within each of UCO’s colleges. The streamlining allowed for deeper education of staff on how to use the system, and ultimately a smoother learning experience for students. Part of this enhanced experience meant the addition of Q-SYS NV Series Video Endpoints at the lectern and projector. With dual HDMI connections to the Room PC and the third HDMI input available for a laptop, presenters can select which screen to stream to the classroom projector while also connecting room audio via USB to their video conferencing platform of choice. This dual-monitor streaming is accomplished without additional control processors, bridges or programming. As well, the system allows faculty to freely select their preferred videoconferencing application, without being locked into a prescriptive soft codec solution. The addition of a second NV-32-H at the room displays allowed a streamlined installation by eliminating dedicated AV cabling and relying on standard network infrastructure. This system supports both faculty in using the system and support staff in troubleshooting.

Quality of sound for each of the new classrooms is maintained through ceiling-mounted QSC AcousticCoverage Series loudspeakers, and is supported by a QSC SPA Series power amplifier. Both Cores also utilize Dante networked audio for the microphones, either through a Q-SYS Dante bridge card for the Q-SYS Core 510i processor, or by Software-Based Dante™ feature license for the Q-SYS Core 110f. To bring a more dynamic experience to remote students, the team employed third-party tracking cameras. Utilizing a Q-SYS Scripting Engine feature license on each Q-SYS Core, the team was able to easily integrate network-based third party device control and create a dynamic viewing experience for distance leaners.

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A Touch of Something Special
A key component to ensuring faculty success within the updated classroom was building and deploying clear, understandable user control interfaces (UCI). The team elected to add a Q-SYS TSC Series Touch Screen Controller to each room. With this, faculty are presented with two choices: they can interact directly with the UCI through the touchscreen, which was deployed using the UCI Editor feature license, or they can scan a QR code from the main screen to access controls via their preferred device. Either choice provides control of room projectors, cameras, video routing, as well as audio elements such as volume and mute.

Clearer Visibility, Faster Resolution
Despite the ticking clock, the UCO team recognized the need to make time to also implement standardized audio, visual and control protocols. To do this, they leaned on Q-SYS Reflect Enterprise Manager. This addition has leveled up their monitoring and status visibility, but also their classroom delivery support. Now issues are made apparent before faculty is even aware and troubleshooting with on-site technicians in the event of power outages or other offline events is drastically accelerated.

Photos provided courtesy of University of Central Oklahoma
Crossing the Finish Line

With a mountain of work yet to be done and the start of semester drawing ever closer, there was significant pressure to deploy on time. To lend a hand, QSC worked with the AV team and developed a solution for expediting deployment. “One aspect that made this the coolest project I’ve ever been a part of was the collaboration with QSC,” stated Caleb. “They worked with me in depth and built us a structured Q-SYS Designer template file for our multiple AV Integrators to use. With it they were able to quickly deploy and configure these classrooms with the same look and feel – completing all in around two weeks.”

With faculty training complete and the dust barely settled, the semester began with students piling into classrooms – either in-person or online. The UCO AV team had succeeded, and their efforts have subsequently been recognized. Shortly thereafter, University of Central Oklahoma was listed as one of the top institutions in the state in their ability to offer a quality education under any conceivable scenario: in-classroom, online, and a blend of each format. QSC is honored to have been a part of the latest (but by no means last) stage of UCO innovation.

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<thead>
<tr>
<th>Model</th>
<th>Pcs Used</th>
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<td>7 Systems (14 Cores)</td>
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