COMMERCIAL CASE STUDY
Reimagining an Imaging Lab and Improving the Education Experience at Kettering College
The small, award-winning Kettering College is located near Dayton, Ohio and offers a curriculum that matches the needs of today’s booming healthcare environment. Through an intimate learning style, students earn their career-focused degrees through a combination of traditional classroom education as well as hands-on learning experiences in the on-campus hospital and laboratories.

One of the top-ranked programs at Kettering College is Sonography, and the students have access to learn in a lab that mimics a real-life hospital setting with seven learning stations set up around the room, each featuring a patient bed, ultrasound machine, and a flat panel medical-grade HD display. There is also a teaching station located in the middle of the room, which includes a basic PC display, and an 86 Promethean 4K interactive display is located at the very front of the room, which allows the instructor to cast the lesson being hosted on their PC out to the individual learning stations, or to the interactive display, eliminating any need for the class to crowd around a single station’s display for centralized instruction.

Unfortunately, the technology in the Sonography lab was overly complicated and often faulty, causing the students and faculty members to become increasingly fed up with using certain stations, ultimately depreciating the intent of the real-life learning experience. After far too many help desk service calls, the college decided enough was enough, and they called upon their trusty AV installer Custom Connections to meet with their IT team and department heads for a full system review and necessary overhaul.

Custom Connections did a full review of the AV system in the Sonography lab and found that it had a very complex composite video matrix system. The technology being used, required software engineers to be on call for programming updates, which often took weeks to schedule, while accumulating an overwhelming and ongoing expense for the department. All they wanted was to simplify the system, reduce expensive service calls, and improve the user experience for the IT team, professors, and students.

“Vanco’s pricing, support, simplicity, and quality of products are consistently superior to the competition.”
"We have done several other installations for Kettering College, most of which include Vanco products, accessories, and cables," said Crumbacher. "When we discovered Vanco products initially, it was during a time when we were looking for convenient products that were available at a decent price point. Vanco’s pricing, support, simplicity, and quality of products are consistently superior to the competition. In fact, we stock many of their more popular products in our trailer so that we always have them on hand. And, they’ve proven to have really great warranty terms. On the rare occasion when I’ve experienced a flawed Vanco product, their team has made sure it was replaced immediately, free of charge. Vanco’s support team goes above and beyond to take care of us and our customers, which is something we cannot say about most vendors."

THE SOLUTION

After reviewing the system, Mark Crumbacher, owner of Custom Connections immediately called Brandon White, director of new product development at Vanco International. Crumbacher stands behind Vanco products because – after using a large selection of them in multiple jobs – he found they simply work the way they should and rarely require service or replacement. The Custom Connections team also appreciates Vanco’s unmatched customer service, tech support team, and product development team that has repeatedly helped them design the best system for any kind of installation they’ve come across.

SIMPLICITY, AND QUALITY

After Crumbacher explained the current complications of the system and vision for what it could be to him, White immediately recommended they install Vanco’s HDBT8X7 Matrix Selector with an IP on-screen Graphical User Interface (GUI). Paired with eight of Vanco’s Evolution EVEXHDB1 extenders, every ultrasound machine could be viewed on any of the learning station displays throughout the classroom, or on the front-of-room interactive display with a simple command – and the best part – no need for any complicated programming. Moving the GUI to an IP-based solution also allowed the Kettering IT team to access the system right from their offices instead of having to travel across campus to the lab every time a professor or student had a question about the system and its functionality. To simplify things even further, Crumbacher was able to retile each display and each source so that when the professors or students opened the GUI, they would know exactly how to navigate it, simply and effectively.

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THE RESULTS

Now that the installation is complete, the Sonography students and faculty at Kettering College are thrilled by the ease of use to say the least. “After just a couple of weeks, I received feedback from multiple professors telling me how much the department loved the new system, and how much easier it made both teaching and learning,” said Crusbacher.

A NEW ERA OF VIRTUAL LEARNING

In a post-installation survey conducted by Custom Connections, an anonymous professor said, “We have the best equipment at the college now. Thanks for all of your guidance and for listening to our needs.” Beth Maxwell, Assistant Professor, Cardiovascular Sonography, Kettering College said, “The new lab setup has created an amazing step in our approach towards teaching. It allows us to easily toggle between a presentation on the screen, over to what a student is scanning, without the entire class needing to leave their seats to gather around a single machine.

“This has alleviated a lot of commotion and wasted time and we are now able to focus that time on more efficient teaching without any interruption. It has really smoothed out our entire teaching process!”

“Faculty and students alike enjoy using the system. The resolution is [now] such that we can see ultrasound images, CT scans, and X-rays in excellent detail,” said Susan Price, Professor and Director, Medical Sonography Program, Kettering College. The new AV equipment has also proven to be useful for the new era of virtual learning. “During the pandemic, students have requested that our faculty record our lectures in our lab using our new Vanco AV system, and it has worked out extremely well! We record the lectures, download the videos to YouTube, and then send the link to the students. It’s important for them to feel like they’re still here in the classroom, amongst their peers, during this time of significant change in higher education,” added Price.

EQUIPMENT LIST

- 1 Vanco 8x7 HDBaseT Matrix Selector Switch with Additional HDMI Output - HDBT8X7
- 8 Vanco Evolution HDBaseT Extenders - EVEXHDB1
- 7 KanexPro HDMI Converter - CONAVHDC4K
- 1 Vanco USB over Category 5e Cable Extender - 280319
- 7 Phillips U-line Displays - BDL3230QL
- 86” Promethean 4K Interactive Display
- 2x Logitech Harmony 350 Universal Remotes

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