DigitalMedia™ Helps Future-Proof Davenport University Academic Center

Background

Located in Grand Rapids, Davenport University is a nonprofit university focusing on careers in business, technology and health professions. The university's newest academic building, the Robert W. Sneden Center features seven high-tech classrooms, three executive meeting rooms and faculty and administrative offices.

"We designed the systems in the Sneden Center to be as future proof as possible," explained Kirk Griffes, systems engineer and programmer for Michigan-based Bluewater Technologies.

"They had to be state of the art and easily added on to, since the university did not have the budget to do everything they wanted in the initial build-out, especially in their new auditorium," Griffes added.

The Solution

Bluewater Technologies anchored the AV systems with a Crestron DigitalMedia™ infrastructure, including Crestron cabling and matrix switchers.

"DigitalMedia allows us to transport and switch digital audio and video signals over category-type cable," Griffes explained. The new multi-use auditorium is used as a student and community center, as well as a lecture hall.

In the auditorium's first three months of operation, Davenport University hosted a televised Congressional debate, a Veterans Day celebration, several special events and receptions, and regular Friday night movies for the students.

Systems at a Glance

To support the various types of events, Bluewater designed an AV system with dual 7,000-lumen 1080p Epson projectors, each with its own 165" screen, sound system and amplification, ceiling speakers, subwoofers for program audio, two custom podiums, wired and wireless microphones, plus computer, Blu-ray player and broadcast sources.

"The University plans to add streaming, production and distance learning capabilities, so we had to design a system we could upgrade," said Ignacio Perez, project manager, Information Technologies Services.
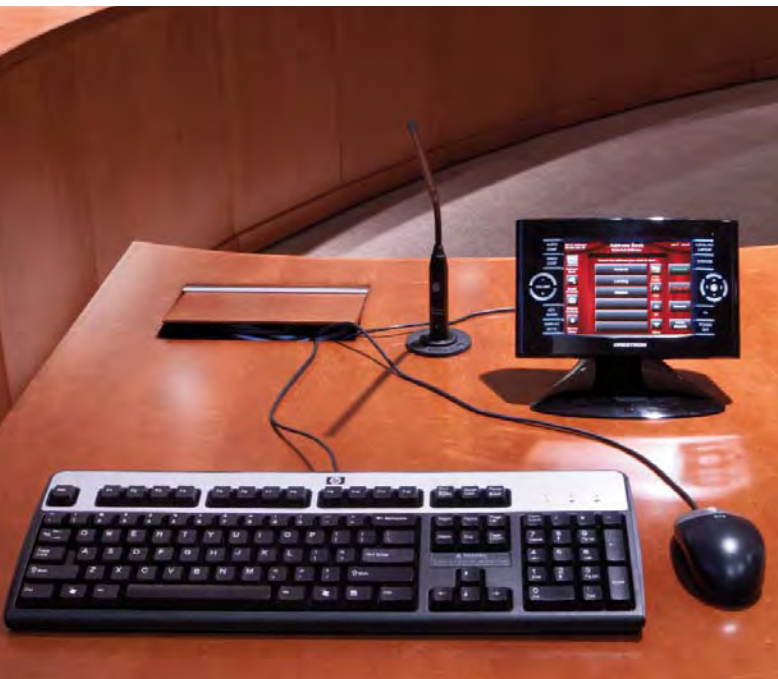
CRESTRON®

"We started with a foundation package but we see that space expanding tremendously in terms of the technology and capabilities offered." With these needs in mind, Bluewater put all of the audio and video signals on Crestron DM-CBL-NP-SP DigitalMedia cable and pre-terminated CRESFIBER-DUAL-SC fiber, switching them with a DM-MD8X8 matrix switcher.

> " We wanted to make sure we had the right infrastructure in place not only for the technology that was installed but for the technology of the future."
>
> **Ignacio Perez,** Project Manager, IT Services

The use of DigitalMedia technology ensures that the university will not bump into any problems with HDCP copy protection or other issues associated with HDMI-based high definition systems. The University is looking at HD cameras and a rich media system, with the idea of recording and webcasting lectures and events.

Bluewater installed a Crestron V15 V-Panel™ touch screen so that the presenter can control the AV seamlessly. The interface is simple enough that instructors, student groups and guests have been able to operate it successfully with minimal training. Annotation capabilities and multiple HD preview windows may be added to the touch screens in the future. The auditorium features Crestron Green Light® commercial lighting for the house lights, enabling full control over each dimmer and switch.

Benefits

The other crucial space in the Sneden Center is the new executive boardroom. "We have 14 campuses throughout Michigan," said Perez. "We need to reach out to them and interact with them regularly." For that reason, the university asked Bluewater to include high-definition videoconferencing and digital AV presentation capabilities in the boardroom.

Bluewater designed this very flexible system on a Crestron DigitalMedia backbone, using Crestron DM-CBL-NP-SP cable and a DM-MD8X8 matrix switcher.

"With digital signals, everything has to be just right, and so far DigitalMedia is the only product out there that manages them well," Griffes noted.

Potential problems include issues with HDCP digital copy protection, maximum cable lengths and EDID signal management, which controls the handshake between the source and the display device.

A Crestron AV2 control processor with a TPS-6X WiFi touch screen brings simple touch screen control to the whole boardroom.

"You have to have a good feel for what a non-technical user can understand when you design a control interface. I like to make every function accessible from every screen without a lot of page flips," Griffes explained.

Crestron provides hard buttons on the sides which users can use to access the main functions, such as source selection, video conferencing, and system on and off. When the video conferencing button is pressed, an address book comes up. Once a call is connected, users see a call control screen and can quickly find desired options.

"We're very excited to have all these capabilities, as well as to add more functions in the future" Perez added. "The building is still new, but we've already done a lot with it."