



SOUND

COMMUNICATIONS

AV FOR SYSTEMS INTEGRATORS, CONTRACTORS AND CONSULTANTS



A MASTERFUL JOB

MASTERCARD'S BOARDROOM AV DELIVERS.

NCAA SCORES AV ALLEY OOP

LONG SIMMERING PROBLEMS ARE RESOLVED, FINALLY.

FCCU BANKS ON TECHNOLOGY

AV BOOSTS CREDIT
UNION'S PRODUCTIVITY.



KAYE'S KRYSTAL BALL: 2007 TECHNOLOGY FORECAST



The boardroom, set up with its eight delegate stations and control system.

AV helps Missouri credit union boost productivity.

FCCU BANKS ON TECHNOLOGY

BY SHONAN NORONHA

The new headquarters of First Community Credit Union (FCCU) in Chesterfield MO consolidates its corporate and back-office operations, bringing 175 employees under one roof. The gleaming steel-and-glass building, 25 miles west of the St. Louis arch, features sophisticated communications technology on all three floors of the 70,000-square-foot facility.

The advanced technology deployed in the boardroom, conference rooms and training rooms includes a wireless audio conference system from TOA Electronics, a wireless Crestron TPMC control system, plus SMART Board and Sympodium interactive panels. The equipment lineup also includes multimedia projectors from Epson, Draper screens, Marantz Pro

and JVC recorders, and selected hardware from Extron, Kramer, RDL and SP Controls.

St. Louis-based Schiller's Audio Visual Group was awarded the AV design, equipment procurement and installation contract. In recent conversations with First Community's Rick Strutman, project coordinator, and Schiller's AV team, we talked about the challenges and excitement involved in creating this intensely functional, customer-driven corporate solution.

Greater Productivity

First Community is a billion-dollar financial institution serving 141,000 members, making it the second largest credit union in Missouri and among the top 100 in the US. With 300

employees serving 13 branches in St. Louis County and one in Fairview Heights IL, First Community's new \$9 million corporate headquarters was designed to ensure increased productivity and greater convenience for local members. "Previously, our management and staff were in two locations, which made it difficult to get everyone together for corporate planning and other meetings," Strutman said. "Travel time and costs also increased as a result."

In addition, the old call center office was not conducive for conferences and training, because it was inherently noisy. "In the new building, on the second floor where our call center resides, we incorporated 'white sound' to wash out the noise, and we have

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music playing through the overhead system,” Strutman explained. “We also now have more rooms with AV capability that are used for presentations and to train our growing number of tellers and loan officers on new products and promotions.”

Integrator of Choice

The contemporary building, designed by TRi Architects, features a two-story lobby with a floating stairwell. Many of the administrative offices have ceiling-height windows to provide abundant natural light. Although this creative architectural approach improved working conditions and gained widespread recognition, it also created many challenges for the deployment of an effective audiovisual system.

Strutman was aware from the start of construction that the architectural design might impact the AV design and installation. This realization resulted in FCCU contracting directly with the AV integrator. “We sent RFPs to four companies. We were very impressed with Schiller’s and the way in which the company does business,” Strutman reported. “They took us to their showroom, introduced us to everybody we would be working with and showed us all the equipment. They also took us to see other projects they had completed, and showed us how things actually work in the field.”

This gave the FCCU team the confidence that they would be more directly involved in the process. “Todd Callahan and the team at Schiller’s did a really great job bringing together equipment from several manufacturers to provide us with the best solutions at competitive prices,” Strutman noted. “Other bidders also showed us products, but we were not very comfortable with those systems.”

Todd Callahan, account executive at Schiller’s, worked with the audio designer and others to bring the project to fruition. Mike Chitwood, service and installation manager, designed the video systems and provided oversight of the installation. Dave Lepper, senior project manager with on-site responsibility, tactfully and tenaciously



First Community Credit Union’s new headquarters in Chesterfield MO.

worked with the internal team, union trades and other FCCU vendors to address challenges and successfully deploy the AV systems.

First Impressions

The entire building is wired for audio. This enables the deployment of background music on every floor. The two-story lobby is accented with stainless-steel plates, and its aluminum-clad ceiling is curved to mimic the look of the exterior barrel vault. “There’s a lot of steel and glass in the main lobby, and the arched areas made it additionally difficult to get the appropriate sound coverage. Echo cancellation and sound amplification were a balancing act,” said Callahan. “We also had to find speakers with steel grilles to match the interior designer’s vision.”

Callahan offered that TOA F-2852C speakers were chosen for frequency response, on- and off-axis characteristics, as well as visual appearance. “Sound coverage was a primary concern because the lobby had real speaker placement challenges due to architectural features. Speaker placement was, at best, difficult. The F-2852C, with paintable grills, also offered the architect more visual options.”

The overarching criteria in the boardroom audio system were privacy, ease of use and multi-input re-

ording capability, but aesthetic and interior design factors also had to be factored into the equation.

Requirements

In the boardroom, Glenn Barks, president of FCCU, required secure audio conferencing capability with mic priority and chairperson override. “The interior designer required that the speakers blend seamlessly with the room decor and that all wires be concealed,” said Callahan, noting that, although this is pretty much a standard request, it eliminated several audio equipment options. “The prized furniture—a rectangular 15’x6’ boardroom table made from imported wood—was off limits in terms of any adjustments for audio equipment. Basically, no holes could be drilled into the tabletop or adapters fastened under the table.”

No holes in the tabletop and no visible wires required that the microphones used for each chairperson be wireless and had to be encrypted or infrared. As an off-the-shelf solution, the TOA TS-800 wireless audio conferencing system met quite a few of the customer’s requirements, helped simplify installation and reduced the cost of the system.

“Number one, it is an infrared wire-



The largest of the training areas.

less system,” said Callahan, “so the security issues were resolved easily.” Callahan noted that the delegate and chairperson stations have their own amplified speaker. “This helped eliminate concerns for feedback and provided point sound reinforcement for each user, though fill speakers were required (with an amplifier) to take care of additional seating areas.”

According to Callahan, “The record output was used to interface with the Crestron control system and the line input was used to provide feeds from other sources selected from the Crestron controller. The system also provides for chairperson override and manages the open microphones with-

One of the conference rooms—with a view.



out any manual user intervention.” President Barks also required audio recording capability in the boardroom. “This meant excellent audio replication of all inputs,” reported Callahan. “We selected the Marantz [DN-780 R dual-cassette deck] because it provides the quality level that was desired and is easy to use.”

The world-class boardroom offers

powerful video capabilities, as well as sophisticated, easy-to-use control and interactive functions. The room is on the bright side because it looks out onto the highway and has ceiling-high windows. “The Epson EMP830P projector was selected because it can deliver 3000 lumens of brightness,” noted Chitwood, who designed and specified the video systems.

The projector is installed into the ceiling on a Draper Micro Projector Lift in order to conceal it from sight. It projects

brilliant images onto a motorized Draper Access 7'x9' electric screen.

Powerful Control

The entire system is controlled with a powerful TPMC-10 Isys wireless touchpanel and the CP2E Control Processor. The TPMC-10 offers wireless control of all AV functions, as well as embedded web-browsing and other



Another view of the boardroom, where function plays a key role. Its 3000 lumen projector can be concealed easily, maintaining the attractive room design.

advanced capabilities, via a 10.4-inch color touchscreen.

Key equipment deployed in the training rooms included a variety of interactive systems from SMART Technologies. A SMART 2000I XGA rear-projection system, a 72-inch SMART Board SB 580 and a Symposium ID 250 were among the tools deployed to facilitate training and collaborative meeting processes. Flexible switching and control in these rooms were provided through the use of Extron's IN 1402 3x1 scalar video switcher, MPS 112 4x1 VGA and audio switcher as well as a variety of components from RDL, and a Mini System from SP Controls.

From the Frontline

Seldom does a project pan out as specified. Change is inevitable. From change orders to juggling schedules and interfacing with other vendors, Lepper orchestrated the project with constant communication and admirable calm.

The original plans specified a Draper Revelation projector mount in the boardroom. "The ceiling is half drywall and half drop-ceiling. So, we cut a lift into the drywall," reported

Equipment

Boardroom

- 1 Crestron C2N-VEQ4, Cresnet 4-channel digital volume control, 4x4 matrix mixer, EQ module
- 1 Crestron CP2E Control System, AV switcher, digital audio processor
- 1 Crestron TPMC-10 10.4" Isys wireless touchpanel
- 1 Draper Access/Series E 7'x9' electric screen
- 1 Draper low-voltage screen control
- 1 Draper Micro Projector Lift
- 1 Draper Micro Shield
- 1 Epson 835P 3000 lumen XGA projector
- Integrated Network Cable plenum-rated cable
- 1 Interlink Electronics VP 6241 wireless keyboard, mouse
- 1 JVC HRXVC17S DVD/VCR
- 1 Marantz DN-780 R dual cassette deck pro recorder
- 2 Semtron custom wall plates
- 1 SMART Sympodium DT770 interactive screen
- 1 TOA E-03R 900 Series equalizer module
- 2 TOA YW-1024Y IR antenna distributors
- 4 TOA F-2852C 6½" co-axial ceiling speakers
- 2 TOA A-706 60W mixer/amps
- 1 TOA TS-800UL system controller
- 1 TOA TS-800UL wireless audio conference system w/2 TS-801 IR chairperson stations, 8 TS-802 IR delegate stations
- 2 TOA TS-801 IR chairperson stations
- 8 TOA TS-802 IR delegate stations
- 2 TOA TS-903 standard gooseneck mics
- 20 TOA TS-904 long gooseneck mics
- 6 TOA TS-905 IR transceivers
- 4 TOA F122CU 5" flush-mounted ceiling speaker kits
- 4 TOA HY-TB1 tile rails

Executive Conference Room

- 1 Chief RPA 6000 projector mounting kit
- 1 Draper Access/Series E 6'x8' electric screen
- 1 Epson 81P 2000 lumen XGA projector
- Integrated Network Cable plenum cable
- 1 Interlink Electronics VP 6241 wireless keyboard, mouse
- 1 JVC HRXVC17 DVD/VCR
- 43 Lowell LT6A-T870-VB tile speaker systems
- 8 Lowell 100LVC-RM 70V attenuators
- 3 RDL RC-1U universal rack chassis w/accessories
- 3 RDL RU-DA4D 1x4 stereo/1x8 mono audio distribution amps
- 1 Semtron custom wall plate
- 4 TOA A-706 mixer/amps
- 1 TOA A-724 mixer/amp
- 1 TOA BG 1030 30W amp
- 1 TOA DT-920 mono AM/FM tuner w/40 presets
- 6 TOA E-03R 900 Series equalizer modules
- 4 TOA F122CU 5" flush-mounted ceiling speaker kits
- 20 TOA F-2852C 6½" co-axial ceiling speakers
- 20 TOA HY-TB1 tile rails
- WPW 25225B extra-flexible plenum cable

Conference Room

- 1 Altinex Tilt and Plug Cable Nook Jr.
- 1 Chief RPA 6000 projector mounting kit
- 1 Draper Access/Series E 7'x9' electric screen w/low-voltage screen control
- 1 Epson 821P 2600 lumen XGA projector
- Integrated Network Cable plenum cable
- 1 Interlink VP 6241 wireless remote control, keyboard
- 1 JVC HRXVC17S DVD/VCR
- 2 Lowell SMG-1R sound masking generators
- 1 Lowell L250-42 equipment rack w/accessories
- 16 Lowell 100LVC-RM 70V attenuators
- 94 Lowell LT830-SM810RS tile speaker systems
- 22 Lowell LT6A-T870-VB tile speaker systems
- 1 RDL RU-DA4D 1x4 stereo/1x8 mono audio distribution amp
- 1 Semtron custom wall plate
- 1 SP Controls SP2 SMCHAS Mini Smartpanel Control System



- 3 TOA E-03R 900 Series equalizer modules
- 2 TOA E-232 dual-channel, 14-band equalizers
- 14 TOA F-2852C 6½" co-axial ceiling speakers
- 2 TOA A-706 60W mixer/amp
- 2 TOA A-712 mixer/amps
- 2 TOA A-724 mixer/amps
- 1 TOA DT-920 mono AM/FM tuner
- 4 TOA F122CU 5" flush-mounted ceiling speaker kits
- 14 TOA HY-TB1 tile rails
- West Penn Wire 25225B extra-flexible plenum cable

Training Room

- 2 Chief RPA 6000 projector mounting kits
- 1 Draper Access Series E 8'x10' electric screen
- 1 Epson 821 2600 lumen XGA industrial conference room projector
- 1 Epson 835 3000 lumen XGA projector
- 1 Extron IN 1402 3x1 scaler video switcher
- 2 Extron MPS 112 4x1 VGA, audio media presentation switchers
- Integrated Network Cable plenum AV cable
- 1 Interlink Electronics VP 6241 wireless keyboard, mouse
- 1 JVC HRXVC17S VCR/DVD combo
- 2 JVC HRXVC17S VCR/DVD combos
- 1 Kramer VP 300 distribution amp
- 1 Lowell L250-28 equipment rack w/accessories
- 25 Lowell LT6A-T870-VB lay-in tile speaker systems
- 2 Lowell LVC-RMP volume controls
- 4 Lowell TLS1670 speaker transformers
- 9 Lowell 100LVC-RM 70V attenuators
- 1 RDL volume attenuator
- 1 Semtron wall plate
- 1 SMART 2000I, rear-projection XGA SMART system
- 1 SMART Board SB 580 72" diag. interactive whiteboard
- 1 SMART Sympodium ID250 interactive pen display
- 2 TOA A-706 60W amps
- 1 TOA A-724 mixer/amp
- 4 TOA BS-1030W weather-resistant music/paging speakers
- 1 TOA DT-920 AM/FM mono tuner
- 1 TOA E-03R 900 Series processor module
- 10 TOA F122CU 5" flush-mount ceiling speakers
- 10 TOA F-2852C 6½" co-axial ceiling speakers
- 10 TOA HY-TB1 tile rails
- 1 TOA Password H/L wireless mic
- West Penn Wire 25225B plenum cable

List is edited from information supplied by Schiller's Audio Visual Group.



This training room is used to simulate a bank's transaction/interaction area.



The boardroom control system.

Lepper. "But, because special lighting fixtures were installed in the ceiling, there wasn't enough space for the Revelation Mount and Revelation Shield. We opted to use the Draper Micro Projector Lift instead."

Another major change was the relocation of the amplifiers. "The original spec called for a rack with amplifier on each floor and central monitoring but, after cable was pulled, the client wanted the audio distribution system on a single rack in the main computer room, for oversight by the network administrator," said Lepper. "This required us to manipulate the wires differently, as well as to work with the electrical contractor to drill holes through three floors, in order to get all the wires up to the third floor."

Beyond the Call of Duty

From the very outset, Strutman and the FCCU team were impressed with the expertise and professionalism of Schiller's AV staff. "Todd Callahan, Dave Lepper and the Schiller's team gave more than 100% of their time to this project, and made sure everything was perfect for us," said Strutman, citing FCCU's Open House event as an example when the team performed beyond the call of duty.

Apparently, the contractor working on the boardroom had not received the wood for the paneling until late afternoon on the Friday before the Sunday morning event. The millwork was completed late Friday. Then,

Schiller's Audio Visual Group

St. Louis-based photographic supply company Schiller's has expanded to other imaging areas, including professional AV since the 1930s. A family-owned business since 1892, it is comprised of three distinct sales groups: the Photo/Graphic imaging group, which sells digital cameras, scanners, specialized computers and wide-format ink jet printers; the Audio Visual Group (Schiller's largest), which designs and installs AV multimedia equipment in the corporate, education and religious markets; and a Retail Camera Store, which includes a photo lab.

"Staying focused on customers' needs, both immediate and near future, has worked for Schiller's for 114 years," said Andrew Miller, managing partner and a fourth generation member of the Schiller family. "Our recipe for success has been that, if you stay close to your commercial customers, they will tell you what they will need next."

Schiller's Audio Visual Group has a team of 13 dedicated account executives and seven project managers and technicians. Its client list includes Boeing Corp., Charter Communications, KV Pharmaceutical, Ameren Electric and Saint Louis University.

Lepper and crew came in and worked around the clock, installing the AV equipment and programming the Crestron. "They did a fantastic job getting it all up and running," reported Strutman. "Nearly 2000 people walked through the facility during that event."

Working on a new construction project brings on its fair share of challenges. "There were several times when Schiller's crew had to work long hours so they could complete their job in specific areas, thereby enabling us to schedule other contractors," noted Strutman.

Schiller's also went the extra mile and built a TV antenna at the special request of President Barks.

Quick and Easy

Within a three-month period, Schiller's had completed the FCCU headquarters audiovisual installation. Management and staff are able to use the equipment without the need for dedicated AV staff support and, with its new audio, video and multimedia capability, FCCU is able to provide timely information and more effective training to its growing staff.

In addition to its new corporate offices, FCCU opened branches in Lake Saint Louis, Eureka and Wentzville earlier this year, and is scheduled to open an additional five during the next two years. With the help of new AV technologies, the member-owned financial institution continues a 70-plus-year tradition of serving its constituency right where it is needed most. ■