MISSION
CRITICAL

CRESTRON CONTROL Helps Manage the U.S. Army's New Command and Control Center Testbed

There is not a more "mission critical" application of control system technology than in a military command and control center. So when designers for the new Command and Control Center Testbed for the U.S. Army's Armament, Research, Development, and Engineering Center (ARDEC) wanted a robust control system, it turned to Crestron for the answer.

ARDEC, located at the Picatinny Arsenal in northwest New Jersey, needed to control lighting, HVAC, audio and video distribu-

tion, CCTV and presentation cameras, and video teleconferencing (VTC) in the Testbed, as well as accommodate growth, provide cutting-edge technology, and offer ease of use. Virginia-based systems integrator Dynamic Technology Services Inc. (DTS) recommended Crestron as the best product to meet those needs.

The new 7000-plus square-foot Command and Control Center Testbed, also known as ARDEC Homeland Defense Testbed Emergency Operation Center

(EOC) Facility, will be the setting for various activities, including simulation and modeling, software development, training, and serving as a backup EOC for partnering agencies. Internal clients as well as those from federal, local, and private agencies will use the facility.

Total Control

Being able to grow with technology and maintain a "state-of-the-art status" was critical to Tom Sroka, project manager, EOC

Facility. "Instead of an overhead projector screen, we went with a video wall. For our lighting, we took a theatrical approach that called for zoning and dimming, and the need for that flexibility is what drove me to Crestron."

The system was designed in 2003 and implemented in a phased approach by DTS. The facility has 87 zones of lighting and 16 zones of audio, video, and RGB distribution systems over Cat-5 that include 400 LAN drops and Crestron QuickMedia transport technology for distribution, preview of all NTSC sources and 38 computers, and access control, which will include biometrics.

Eighteen touchpanels and 17 keypads control the facility, and the Crestron XPanel web browser-based control and RoomView multi-user software (for global room scheduling, monitoring, controlling, and reporting of resources and systems) will offer increased flexibility to Sroka. "I ran an ops center, and was the person called at two or three in the morning to come in and warm up the place, turn everything on, and get the lights going," he says. "It will be great when I can do that from home, or have it pre-programmed."

Upon completion, the facility will have 17 rooms under Crestron control, including the two-story Testbed EOC, which has two rows of workstations to accommodate approximately 24 people, facing a 17-foot high, 35-foot wide video wall. Within the Testbed EOC, both classified and non-classified videoconferencing and command and control activities will take place, as well as presentations and briefings.

"With the help of DTS, we explored different vendors and sought the best answer for the challenge created by the variety of customers and applications we will have here," Sroka explains. "We had to make some assumptions and say here are probably our most typical scenarios, let's go from there. With Crestron we can always go back and change things later, as our customer base develops."

"We think it's very important to attain the kind of partnerships where we can test the next level of technology for our multifaceted environment, and then teach it to everyone else, to show them how it can make their jobs easier," adds Jackie Barnum, assistant project manager for the EOC facility. "When we partner with an organization our goal is to find the smarter approach. We don't endorse any products whatsoever, but we share our experiences. In particular, the public safety sector is moving toward a more automated environment, but it needs guidance, and that's a big part of what we're here to provide."

According to James Cudney, director AV/IT systems division, DTS, most people who will be coming into the facility are not familiar with it, so the simple preset buttons on the Crestron touchpanels that provide one-touch features for VTC, full light, and presentation mode are especially useful. "We took some very complex systems, including the AV, lighting, VTC, the video wall, and all the associated presets, and used Crestron technology and touchpanels to interconnect the multiple systems to achieve a 'super remote' that anyone can use," he says.

System Security

The facility has external input boxes that do not require running cable or wire back to the main equipment cabinet, setting up a kind of firewall that prevents one room from affecting another. The infrastructure LAN server room (control room) is off limits to everyone except the in-house technical administrators. For example, a guest server room is used when someone is coming in to do an experiment. It is where they put their servers and PCs, and then bridge over to the Picatinny infrastructure.

With multiple modules and lighting zones, the facility is designed so that a conference room can become an autonomous unit and, from an IT perspective, be segregated from the LAN. From a programming perspective, video signals that are generated in one area can still be distributed anywhere in the facility.

"Being a former support person, I always made sure that I treated my customers fairly and with a lot of truth and honesty, and that's what we look for here," Barnum says. "Whether it's a Crestron engineer, salesperson, or support person, they've been extremely responsive, and that's very, very important to us." ■