

From candy to conferencing and collaborative research

AV SOLUTIONS FOR SCIENTISTS

BY CHARLES CONTE

Completed in 1927, the building was once world headquarters for the New England Confectionery Company (NECCO). Upgraded in the summer of 2004, it became world headquarters for the Novartis Institutes for BioMedical Research (NIBR) — an architecturally spectacular transformation that re-invents the original factory environment as a place to encourage collaboration and the exchange of knowledge among scientists.

But 250 Mass Avenue in Cambridge, MA (as the new facility is also known) is also a *technologically* spectacular transformation of the virtual space that was once a candy factory, and now home to 700 scientists for worldwide collaborative biomedical research. (See sidebar for a description of the Novartis distributed campus in Cambridge.)

The new facilities are based around a six-story, 480,000-square-foot main building with over 30 conference rooms (two divisible, three large, 12 small and 12 “bubble” glass conference rooms), six break areas, a boardroom, and a 20,000-square-foot amenities building (formerly the candy factory’s coal-fired boiler plant), now housing a café and a 180-seat auditorium in the basement level. An atrium, the building’s centrally located “nucleus” connecting the two arms of its U-shape, spans all six floors and is topped by a 1500+ square-foot skylight.

If the atrium is the facility’s signature architectural element for openness and transparency and creative interaction, then the tech-





Events that take place in the Novartis auditorium can be broadcast to displays in other classrooms and break areas on campus.

nological equivalent must be the audiovisual systems and the control of those systems that collapse the distance between floors and buildings, as well as countries and time zones.

AV control for 250 Mass Ave (and the four new conference rooms and seven new break areas of 100 Technology Square) is from Crestron: the company's e-Control product operating over the complex's network, and RoomView™ 5 software, providing an inclusive systems monitoring tool for all audiovisual equipment. RoomView works in conjunction with Polycom global management software to allow administrative personnel to set up and control live meeting events from anywhere on the Novartis network.

Conference rooms in the new 250 Mass Ave facility include 12 Crestron Pro 2 series processors and 14 Crestron TPS-4500 wireless touchpanels with rack-mounted docking stations and one TPS-6000 in the Mass Avenue control room. Twelve Polycom iPower videoconferencing codecs are installed in the conference rooms, the

boardroom, and the auditorium.

Events in the auditorium can be broadcast to displays in other conference rooms and break areas on campus, which include two large format (61-inch) plasmas, seven 32-inch LCDs, and six 30-inch CRTs, as well as 10 LCD projectors and one DLP projector. Event audio, video, and presentation graphics can be captured and stored on the network so that Novartis personnel can then view the event from their desktop, at anytime.

Collaboration & Control

Two companies pulled together to jumpstart this impressive project in short order: Videré Conferencing, Quincy, MA, (www.videreconferencing.com), an integration company for video, audio, and Web conferencing solutions, and AV Helpdesk, Inc., Boston, MA, (www.avhelpdesk.com), a consulting firm and technical services provider specializing in integrated AV systems for corporate clients. Programming was done by MDCI (www.mdciav.com).

When Novartis issued its general request for proposals, Videré quickly contacted long-time business associates, AV Helpdesk. A few weeks later — and one pre-bidders meeting, and one presentation meeting — the two companies were awarded the contract in December 2003 for all audio-video services for the NIBRI project. AV Helpdesk provided the system design, documentation, and project management services. Videré subcontracted the rack fabrication and control system programming labor. AV Helpdesk subcontracted the on-site installation labor.

"Careful research of control system alternatives lead to the selection of Crestron," says Steven Grace, CTS-D AV Helpdesk, Inc. "RoomView software allows technical support personnel to access the systems remotely to monitor key metrics such as projector lamp hours and system status, facilitating preventative maintenance procedures in advance of technical problems. Firmware and software can be updated over the network, allowing the updates to be performed without requiring direct access to the numerous equipment locations."

System Solutions Via Crestron

Ted Wilson, the NIBR project leader in Cambridge, was intimately involved with

"Without Crestron, this project would have been very difficult to accomplish. Their extensive lineup of products allowed us to simplify our quoting process and finish the project on-time and within budget."



Crestron's e-Control and RoomView products give operators control over resources and allows the campus' AV operations to be run from a single control room.



management. They get it. And we knew that we could work with them to make this a project a huge success."

When the "NECCO project," as it was referred to originally came along, Luttinger's and Videré's primary contact, Ted Wilson, made sure that Videré was included in the process. "He really gave us the at-bat," says Luttinger, "and the chance to differentiate ourselves from the competition, some of whom, quite frankly, were bigger than us and have been around longer."

"We spent a lot of time at Novartis," says Luttinger, "observing meetings and conferences, talking to people, watching how they work, in order to determine what would be the most productive use of technology — the right technology — to implement for this new headquarters. Our competitors, on the other hand, were more concerned with the bid, the part numbers, the specs, the pricing. I think our approach was much more effective, and I know it's resulted in a much happier customer. They certainly use the technology heavily."

"Videré and AV Helpdesk collaborated on putting together the documentation for the project," says Videré's Steve Cogliano, project lead, "and that included a comparative analysis of the Crestron system and their main competitor's. In fact, both vendors had the opportunity to pres-

Novartis global standards for communications, as well as the selection of individual products and system solutions, such as the Polycom multimedia conferencing system, and the Crestron control system, as well as, importantly, Crestron's RoomView software. But the counseling he received was not about product selection.

"Videré and AV Helpdesk took a big-picture approach to evaluating our needs," says Wilson. "The first thing they told us was that an effective conferencing solution is not about selecting technology. In fact, that comes last. We didn't consider 'product' recommendations until we understood the entire dynamic of the project."

"Based on our experience with Novartis on an earlier project," says Videré's CEO, Todd Luttinger, "we were very excited with the potential of this one. Novartis understands best-practices, they understand implementation and project

Speakers throughout the large campus can pull AV from a central location for use in whichever conference room or auditorium they find themselves in.



ent directly to Novartis. Based on where Crestron was with their products at the time, and, importantly, with RoomView 5, Novartis made the decision to go with Crestron.

"Between videoconferencing systems, conference rooms, conference rooms with projectors only, and local presentation capabilities, at the 250 Mass Ave., 400 Technology Square, and 100 Technology Square locations," says Cogliano, "Ted knew he had a great deal of infrastructure to support. He realized that, going forward, he had to find a way to maximize his resources. RoomView allows him to do that. It gives his technicians the ability to peer into the environment and manage it from a higher level.

"Craig Donnelly [the facility's lead technician] uses it almost like a network monitoring tool," says Cogliano. "The technical team can see how many hours they have left on a projector bulb so they can schedule re-order. Things like that make RoomView very valuable. And it's been a very stable product as well."

"RoomView gave Ted the comfort of knowing he had additional tools to help provide a reliable service to his clients: the researchers in the Cambridge facilities," says AV Helpdesk's Grace.

Solutions, Not Products

The level of collaboration and communication achieved among Videré, AV Helpdesk, and Novartis was central to this project's success. "Each issue that arose was identified early and solved quickly," says Novartis' Wilson. "Because of the effective working relationship between AV Helpdesk and Videré, project schedules and budgets were never in jeopardy."



Conference rooms in the facility include 12 Crestron Pro 2 series processors and 14 Crestron TPS-4500 wireless touchpanels with rack-mounted docking stations and one TPS-6000 in the Mass Avenue control room. MDCI programmed the control system and provided the GUI design for all the touchpanel interfaces.

Videré and AV Helpdesk share the same approach to systems design, says Cogliano. "We don't sell solutions based on a product or a particular set of products," he says, echoing Wilson's assessment. "We both

look for the solution that's best for the client's application. So, when it was all said and done, Crestron proved to be the better product for the client's application. In that sense, the product sold itself." ■

Flex Rooms

While the electronics for all four conference rooms at 250 Mass Avenue are identical, three were implemented as "flex rooms," where the conference table, furniture, and wall partitions are all moveable. (The boardroom and auditorium distinguish themselves from these "flex" conference rooms via their true high-definition capabilities: 2200 and 3200 ANSI 1365 x 768 high definition projectors, respectively.)

"Most meetings in these flex rooms use a typical boardroom arrangement of furniture," says AV Helpdesk's Steven Grace, "a U-shaped table configuration for videoconferencing, table rows for training classes, and all tables removed and replaced with additional seating for maximum capacity." A room partition to allows two smaller groups to use the same space simultaneously.

The flex rooms incorporate multi-pin connectors installed in floor boxes for ease of connecting the "technology enabled" tables that allow users to connect their laptops to the display system from either of two floor locations or one wall location (at the lectern position) in each room. "The flexible nature of the design is enhanced with Crestron wireless touchpanels and ceiling-mounted microphones," says Grace.

These rooms incorporate built-in videoconferencing and audio conferencing capabilities, as well as presentation capabilities. All three laptop connections, two floor box and one wall, can be used to connect to three high-resolution document cameras that have the same connector arrangement as standard laptops.