



THE PICTURE OF HEALTH

Hamilton Health Sciences Plugs Into Networked Videoconferencing

HAMILTON, ONTARIO, CANADA—When Hamilton Health Sciences envisioned their new research institute, the David Braley Cardiac Vascular and Stroke Research Institute at Hamilton General Hospital, they called for an AV system that would be as adaptable as the world-class medical teams it serves. The institute was built to promote synergy between two renowned medical researchers and their global teams, and to ensure communication both on and off site.

In addition, the institute wanted a flexible system that could “send anything anywhere” within the dramatic 5-story building—from auditorium to hallway to atrium to balcony to boardrooms and meeting rooms on any level.

To achieve this, Hamilton Health enlisted Duocom Canada. They created a system that features three Biamp AudiaFLEX DSP units on the main floor, and one in each executive boardroom, plus two AudiaEXPO

expander units, all networked together via CobraNet.

“The doctors needed a state-of-the-art facility that research teams could work in,” stated Omar Prashad, senior systems integration consultant, Duocom Canada. “But, most importantly they needed to connect with colleagues from supporting research teams around the world. As we designed and built the overall system, we knew a robust videoconferencing system was at the heart of the solution.”

The focal point of the building is the ground floor, which was built as a true system matrix: any input can be sent to any output. There is a total of six audio zones on the floor, which include the presentation auditorium with HD videoconferencing, the atrium, and a 5-story-high “hallway of memories” with four separate zones for digital signage, audio, and video displays.

Of the three hi-def, multi-camera, multi-display videoconferencing systems installed within the building, the most robust was implemented on the ground floor, in the large presentation auditorium. The system includes two Vaddio HD cameras, which allows the user to face one camera to the front of the room at the stage or presenter, while the

VIDEOCONFERENCING: **INSTALL**



(Left) Of the three hi-def, multi-camera, multi-display videoconferencing systems installed within the building, the most robust was implemented on the ground floor, in the large presentation auditorium. (Right) In addition to multiple cameras, there are multiple display options. There is a wide-format main projection screen at the front of the room, being projected upon by a high-lumens Christie 3-chip DLP HD projector, and three LCD displays, one on each of the walls.

other camera faces the room itself for a more collaborative session. In addition to multiple cameras, there are multiple display options. There is a wide-format main projection screen at the front of the room, being projected upon by a high-lumens Christie 3-chip DLP HD projector, and three LCD displays, one on each of the walls.

The system was also designed to give the user increased functionality within the multiple display options. As the Polycom HD videoconferencing codec is confined to the picture presets, Duocom installed an Extron windowing processor, allowing for multiple inputs to be displayed simultaneously, in any configuration in full resolution.

The auditorium conferencing system also has 11 Sennheiser wireless mics that can also be used for overflow crowds from the atrium by changing the function from audio/videoconferencing to presentation mode, with presets programmed using Biamp Systems Audia software. As the customer did not want the aesthetic implications of mics hanging from the ceiling, Duocom controlled echo cancellation and characteristics of audio coming through the wireless system by independently running each of the mics to a Biamp AEC-2HD DSP inputcard. What's more, Sennheiser antennas are located throughout the card. What's more, Sennheiser antennas are located throughout the

building to ensure clear mic pick-up. Duocom eliminated interference from WiFi and hospital paging so that tours and presentations can flow anywhere.

Another challenge the system overcame was capturing all the intellectual property generated during presentations and collaborations. The record and archive feature of the new system uses hi-def videoconferencing cameras to record all the audio and video to a server, and saves each session as a single file. Now it's simple to send, download, and review any session file from anywhere.

All system components can be controlled locally with an executive-type Crestron interface or monitored and operated remotely by technicians interfacing with the Crestron control panel or Biamp daVinci graphic control screen software. The Crestron control system has two final "skins": An everyday skin with basic controls for doctors to use, and a technical skin for Hamilton Health and Duocom AV teams.

As the flagship project, the David Braley Cardiac Vascular and Stroke Research Institute will inspire new AV possibilities for the additional research facilities Hamilton Health is building. The capabilities of the new research facility, and future facilities to come, will enable Hamilton Health to continue to attract world-class, highly qualified professionals. ■

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