tyco Security Products

Dana-Farber Cancer Institute

Dana-Farber Cancer Institute manages ever-changing security monitoring needs with suite of solutions from Tyco Security Products.

BOSTON—The urban campus of Dana-Farber Cancer Institute in Boston is representative of many modern metropolitan healthcare institutions today, with a main campus in a busy city center that takes advantage of every available square inch. New buildings replace existing structures, existing facilities are reconfigured, and as the institutions continue to grow, their footprint expands into surrounding suburbs in an effort to serve their growing patient and research needs.

CASE SUMMARY

Location:
Boston, MA

System Installed:
American Dynamics
- Intellex DVR
- victor unified video client
- VideoEdge NVR

Software House
- C•CURE 9000

Introduction

Internationally renowned for its unique blending of clinical and research operations to provide state of the art cancer care — the institute supports more than 300,000 patient visits annually and is involved in some 700 clinical trials — the only constant for Dana-Farber is change. In addition to the four satellite locations in greater Boston and the main campus in the city's Longwood medical area, the institute also maintains clinical affiliations and a physical presence at other high profile institutions, such as Brigham and Women's Hospital, Children's Hospital Boston and, Harvard University, further expanding the institute's reach.

When Dana-Farber undertook its most significant expansion project to date, the design and construction of the institute's new Yawkey Center for Patient Care, the project included demolition of two existing buildings and a street-level parking lot at its Boston headquarters to make room for the new 14-story building. Dramatically expanding the institute's clinical care space, the new Yawkey Center features more than 100 exam rooms, 150 infusion spaces, and 20 consultation rooms. Built around a philosophy of uniting clinical care space with related research functions, the institute fosters collaboration and information sharing about particular cancers and treatments.

Challenges

During the three-year construction, security and facilities management staff had to evaluate the impact of the new state of the art facility on the current and multi-location infrastructure. Not only did the Yawkey Center add an additional 275,000 square feet of clinical and support space to the institute's overall footprint, but security plans for the center included the addition of nearly 200 additional IP cameras that had to be seamlessly and efficiently married with Dana-Farber's significant investment in their current CCTV surveillance equipment.

With 23 existing Intellex DVRs from American Dynamics and nearly 300 analog cameras already deployed throughout its facilities, Dana-Farber security staff were searching for a solution that would allow dispatchers in its security command center to have a single interface through which they could view live and recorded feeds from both analog and IP cameras.

"Running two separate systems for analog and IP video was just not an option for us to deploy into our security monitoring operations," said Ralph Nerette, Manager, Security for Dana-Farber Cancer Institute. "The solution we chose had to be seamless for our dispatchers to be trained on and successfully use, regardless of whether video is coming from the DVR or NVR environment."

Complicating this search were some additional responsibilities that Nerette's security staff was about to assume. As part of an overall renovation and upgrade project, central dispatch functions for facilities

maintenance, housekeeping and environmental health and safety were about to become part of security operations. Coined the institute's Facilities Security Operation Center (FSOC), this facility would manage Dana-Farber's two million square feet of clinical, research and administrative space and a call volume that sometimes exceeded 1,000 calls per day, requiring significantly more infrastructure than the current 120-square-foot security command center could handle.

"We needed much more functional space and the ability to segment equipment, reduce noise and allow our dispatchers to focus on customers and provide the level of service required of a security operation of this size," Nerette said.

Solution

With such a large, functioning network of Intellex DVRs, Nerette and his staff worked with systems integrators Tesla Systems, of Georgetown, Mass., and Team AVS of Westford, Mass., to find a VMS solution that would allow the DVRs to be used in tandem with the new IP-based cameras and NVRs, as well as function as a platform for the future as the institute eventually migrates to a fully-IP-based solution.

Using the new victor unified video client and VideoEdge NVR from American Dynamics, all IP and Intellex DVRs' analog video streams from Dana-Farber's 500 cameras are seamlessly integrated into victor's single system and user interface. Instead of toggling between different applications on their monitors, dispatchers can be concerned only about the content of the video and fulfilling their regular duties of ensuring the safety and security of the hospital facilities and not what recording technology the video is being generated from.

"This approach allowed the institute to extend the life of our existing Intellexes," Nerette said. "Rather than rip and replace, we were able to focus our new investments on state of the art IP technology as part of the Yawkey expansion. This let us strategically add IP cameras in additional key areas and save money," Nerette said.

The 200 new IP cameras from The Yawkey Center and a handful of other camera clusters, sucha small, 22 IP camera deployment in one of the more sensitive research areas, are recorded on four VideoEdge NVRs from American Dynamics, with two NVRs for fail-over to ensure no interruptions in operation. On average, Dana-Farber will be storing 30 days of video per camera on the institute's 70TB of external iSCSI storage.

With dispatchers viewing some 60 cameras view up at any given time, those unified operations are crucial to the workflow of the command center, according to Robert O'Rourke, Account Executive, Tesla Systems.

"One of the unique challenges of this project was to integrate the analog and IP video technologies to make them function seamlessly together," O'Rourke said. "The command center has two 42-inch monitors and 14 other 20-inch screens, with video coming in from five remote locations, so there was a lot of complexity."

Another essential requirement of the system was the ability to easily share video with other users within Dana-Farber, all while safeguarding unauthorized views and exports of the footage. With victor's embedded policy management functions, Nerette is able to grant secure access to other users of the CCTV system – outside of the security and facilities maintenance divisions – to view video from specific live feeds or

recorded video only from other areas of the facility from designated cameras. These groups also cannot export any video as part of the victor policy management deployment.

Security staff in the institute's command center will soon have even one less standalone system to monitor. With an upgrade to Software House's C•CURE 9000 security monitoring platform planned for sometime next year, Dana-Farber will be able to use victor's upcoming 2012 release as a single unified event and security management platform to integrate the card access functions, as well as fire and other building management functions, according to Geva Barash, president, Team AVS.

It's clear to Dana-Farber staff that undertaking the deployment of a new command center, built around the victor platform that harnesses the strength of Dana-Farber's existing video infrastructure and the flexibility of IP video, has accomplished two major goals. Not only has it provided the institute with a custom designed clinical facility to further its mission of excellence in cancer care and research, but also a state of the art infrastructure on which to base security and facilities operations for the future.