



Yale-New Haven Hospital

A prescription to unify more than 12 individual sites

Yale-New Haven Hospital (YNHH), one of the largest hospitals in the United States, overhauls and centralizes its security systems with security solutions from Tyco Security Products, including Software House's C•CURE access control and American Dynamics' *victor* video management system.

CASE SUMMARY

Location:
New Haven, CT

System Installed:
Software House
C•CURE 9000 access control
American Dynamics
victor unified video management system

Introduction

It's an institution that boasts several medical firsts — the first X-ray in the United States in 1896, the first to use chemotherapy to treat cancer in 1942 and, in 1949, the development of the world's first artificial heart pump.

For Yale-New Haven Hospital (YNHH), a 1,500 bed tertiary care hospital with world-renowned specialties in pediatrics, cancer treatment and psychiatrics, technological advancements are part of its DNA. The teaching hospital for the prestigious Yale School of Medicine, YNHH is the flagship facility of Yale New Haven Health System, Connecticut's largest healthcare system.

While YNHH is considered tops in the field of medicine, like many other hospitals, it encountered some security challenges when constructing its newest location in 2009.

Challenges

The YNHH organization and its parent health system occupy buildings that range from brand new to more than 150 years old. The cornucopia of access control and video surveillance technologies that accompanied these facilities, ranging in size, age and technologies, presented their own integration challenges for security and safety staff.

At the same time, YNHH manages over 12 facilities in the area, including the former Hospital of Saint Raphael Campus, an off-site IT Administration and Outpatient Clinical Care facility in North Haven, and eight other satellite inpatient and outpatient treatment centers.

Hospital security officials knew an upgrade to this disparate and diverse array of equipment would allow them to centralize the management and maintenance of security operations for these facilities. This streamlining would represent savings not only for Protective Services' Security Technology Division, but also for YNHH's Patrol Operations.

Furthermore, it was discovered in 2009 that the hospital's existing access control platform was not scalable to meet the needs of YNHH's newest construction, the Smilow Cancer Hospital, a 17-story, 500,000-square-foot building in downtown New Haven.

This marked a turning point for the hospital and the direction of the security technology, said Marvin White, Manager of Physical Security - Protective Services, Yale-New Haven Hospital.

Solution

With a new technology direction that involved Johnson Controls, who was selected as the systems integrator for Smilow Cancer Hospital and an upgrade and expansion of the video and access systems, YNHH chose the C•CURE 9000 security and event management platform from Software House. The team carved out a phased approach that would ultimately transition more than 12 individual YNHH sites onto C•CURE 9000 over the hospital's robust central network.

"We're very proud of our position as one of the leading hospitals in the United States, and staying ahead of the technology curve is paramount in keeping patients, visitors, and staff safe," said Nicholas Proto, Director,

Protective Services, Parking and Transit, Yale-New Haven Hospital.

The multi-tiered plan would also include the significant undertaking of updating access credentials for more than 12,000 workers in the YNHH network as well as additional personnel from Yale New Haven Health System. This massive upgrade would affect over 1,000 doors and readers in the YNHH network alone.

In tandem with the access control project, Johnson Controls set out to upgrade YNHH's analog CCTV system to a modern IP surveillance network that would allow for a similar centralized approach. Using the *victor* unified video management system from American Dynamics, which merges video from IP and analog devices into a single, unified interface, security personnel can view feeds from more than 800 cameras from the central command center.

In addition, the hospital installed its first thermal imaging camera, which is also running on the *victor* video management system. Used to monitor an employee parking lot, the thermal imaging camera enables YNHH to see through tree foliage and track the heat of people and works in conjunction with surveillance cameras, emergency phones and the ability to dispatch based on suspect activity.

To accomplish such a comprehensive and multi-stage migration and expansion — and avoid issuing brand new credentials to nearly 20,000 employees — the team devised a strategy to run C•CURE 9000 on the front end using proximity technology with the legacy access control system running in the background to support the existing magnetic stripe cards. This allowed cardholders to use readers on both systems.

As part of the transition, new iSTAR controllers from Software House were installed throughout the YNHH network, allowing technicians to perform remote programming. To save additional space, Protective Services incorporated rack-mounted iSTARs in the recent Emergency Department renovation.

With the addition of *victor*, migrating to IP cameras has been an easier transition. New facilities, like the New Haven off-site emergency room and an ambulatory care center with more than 20 IP cameras and about 30 card readers, will be easily added to the hospital's IT network. Simple PoE switches feed the video back to the hospital's server farm in New Haven, where it's recorded on a bank of 22 VideoEdge network video servers.

In all, Yale-New Haven's 900 cameras — about 150 of which are analog — are viewable on five 42-inch monitors in the security control center facility at the hospital's main campus. All other systems, such as the hospital's Motorola radio system and PPM 2000 incident management software are also centralized here. More than 150 panic alarms from the hospital's Lynx Duress and Mass Notification System are also fed back to the dispatch facility into C•CURE 9000.

Centralized access control reporting functions were also an integral part of the new system's success. The Business Intelligence Reporting Suite (BIRS) from Software House provides White and his team with customized reports from C•CURE 9000 that can, in turn, be provided to other directors within the hospital network.

“A standardization project of this size, nearly 5 million square feet of real estate, on a corporate level will allow

us to monitor, track and analyze everything with greater ease,” said White. “We’ll have a snapshot of the system history at any given time, and we’ll know what types of things need to be attended to and how we can continue to improve.”

The new access and video systems have also allowed the hospital to enhance other areas of its operations, including internal food theft in cafeteria locations, with the installation of additional card readers and cameras.

Furthermore, benefits from a standardized, enterprise level security upgrade can also help YNHH comply with a multitude of industry regulations that govern hospital operations, including new rules from The Joint Commission concerning the storage of certain prescription narcotics.

The Future

To date, about 50 percent of YNHH locations have transitioned to C•CURE 9000, including sites such as a pediatric radiology center in Norwalk and the Saint Raphael Campus. When the upgrades are complete sometime this spring, YNHH will have an established platform capable of supporting healthy, scalable growth for years to come. Security systems at any new facilities that the hospital adds in the future will be easily added to the centralized network.

The Customer - Yale-New Haven Hospital (YNHH)

Yale-New Haven Hospital (YNHH) is a 1,500 bed tertiary care hospital with world-renowned specialties in pediatrics, cancer treatment and psychiatrics,

technological advancements are part of its DNA. The teaching hospital for the prestigious Yale School of Medicine, YNHH is the flagship facility of Yale New Haven Health System, Connecticut’s largest healthcare system, which encompasses a host of other treatment facilities dotting New England’s southern shoreline.

The Solutions Provider – Tyco Security Products

Tyco Security Products, part of Tyco (NYSE: TYC), is a unified group of world-leading access control, video and intrusion brands. Operating in more than 40 offices with over 2000 employees, these brands - American Dynamics, Bentel, CEM Systems, DSC, Kantech, Software House, Visonic, and Elpas- have more combined years of experience in the security industry than any other group in the world. Our security integration platforms, built by our developers from across all product disciplines allow our customers to see more, do more, and save more. Our solutions today are designed to be compatible with the technology of tomorrow.

The Integrator – Johnson Controls

Johnson Controls has an extensive background in security solutions integration. Its advanced solutions and systems can be tailored to meet customers’ specific needs in many markets including healthcare, education, local, state and federal government, transportation, commercial real estate, industrial, and pharmaceutical.