

Upscale Security for Highbrow Development

by By Rodney Bosch

Located in the heart of the MetroWest master-planned community in Orlando, Fla., a new Italian-style village center called Veranda Park is turning heads with its lavish construction. The \$400 million mixed-used development is intended to be the city's second downtown, a 30-acre cluster of swanky condominiums, restaurants and a luxury hotel, all inspired by the villas of Tuscany. With ornate fountains, Italian marble palazzos and trendy retailers, the idea is to bring urban glitz to the 'burbs.

In a place of such swing-for-the-fences extravagance, residents, business owners and patrons expect to be safe and secure. Thus, no pennies were pinched on the development's security solution.

Designed by HDR Engineering Inc., Veranda Park's complement of electronic security systems feature integrated IP-based video surveillance, access control and call assist intercoms. Sean Wicks, design group leader for HDR's security operations at the firm's Orlando office, led the design project. Winning the bid to make the installation come to fruition was SmartWatch Security & Sound, a full-service systems integrator that has been serving Central Florida for eight years.

The project's integrated design is a fine example of the potential for IP-based solutions to expand a security contractor's service offerings. And while a networked solution can often make for a smoother installation, that doesn't mean those gremlins found in traditional installations aren't still around to trip up your workflow.

Networked, Integrated Security

The 1.6-million-square-foot Veranda Park, developed by Veranda Partners LLC, consists of six buildings that densely commingle 500 condominiums with office and retail space. Combining commercial development and private residences placed an added emphasis on making sure homebuyers have peace of mind for their personal safety and financial investment.

Working as a subcontractor for the Orlando office of PCL Construction, SmartWatch first gave precedence to installing a Pelco Endura IP video surveillance system integrated with GE Security's Summit eNT® access control solution.

"The cameras and access control had priority because they affect life safety," says Dean Farrell, a SmartWatch operations manager who played a leading role in the installation. "They want those systems up and operating so the fire marshal can start coming through and do his inspections."

The developer's blueprints called for a fiber-optic communication infrastructure all through Veranda Park to handle the network needs of retailers and office space tenants. This provided SmartWatch the necessary bandwidth to handle its security network requirements. The integrator also provided a HP ProCurve 5406-48G core network switch.

"The network allowed for the simple interconnection of system controllers and workstations," Farrell says. "The Endura platform uses the network to distribute the video between managing blocks, recording blocks and viewing blocks."

A three-level parking garage is topped by three more levels of condos. Retail space surrounds the exterior of the development on the first floor. Public parking is relegated to the first and second floors; the third floor is secured, allowing only homeowners to pass through entry gates with an access control ID card. Pan/tilt/zoom (p/t/z) cameras also watch over the parking area.

SmartWatch used a Zenitel AlphaCom E26 exchange for the head end of the intercom system to go with integrated



The more than 100 cameras installed by SmartWatch Security & Sound throughout the Veranda Park project include a combination of Pelco's Spectra IV p/t/z model, and ICS150 and ICS110 Series fixed domes. The cameras operate on an Endura IP-based video surveillance system.

call assist stations located in the parking structure.

“We kept it pretty simple. We did camera call-up upon alarm. If someone was to press a call station, the local p/t/z would pan to that station,” Farrell explains. For example, if someone is scared or maybe has lost their ID access card, they can press the intercom button to reach an attendant. The p/t/z video feed will then be viewed in the security control center, which is located on the first parking level.

HID Global’s ProxPro wall switch proximity readers provide access control for about 50 doors throughout the development, plus a telephone entry system by DoorKing provides further access control protection for the residential areas.

{+PAGEBREAK+} **State-of-the-Art IP Video Solution**

The centerpiece of the Veranda Park security solution is the IP-based Endura system, which was chosen for its scalability and flexibility. Both SmartWatch and Wicks lauded the solution for its no nonsense setting up.



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“The train can go flying off the tracks so easily on these projects,” says Wicks, a 25-year veteran of systems design. “That kind of ease of use is what I look for. We were pleasantly surprised about the quality of the video and the ease of the installation.”

Pelco provided support all through the project, which began in March 2007, including training, technical support and advanced replacements for critical components. The 108 cameras placed throughout the development include a combination of Pelco’s Spectra IV p/t/z model, and ICS150 and ICS110 Series fixed domes.

SmartWatch determined final mounting requirements and utilized wall mount, ceiling and pendant mounts. The locations of the cameras were divided into three basic areas. The exterior perimeter was secured with

fixed cameras located around the outside of the building in the retail area walkways.

The second area of focus was the three-level parking garage. The structure called for p/t/z cameras in the corners of the parking area and fixed cameras at all entry and exit locations. The common areas, including elevator lobbies, mail center, storage areas and residence hallways used primarily fixed cameras.

The security control center is designed and equipped to serve as a centralized hub for all electronic security being installed in the buildings presently under construction, as well as future buildings in the planned multiphase project. SmartWatch installed a total of three monitors for viewing and maintaining the Endura system. The monitors consist of a 50-inch plasma, 20-inch LCD and 17-inch KVM monitor/switch used primarily for programming.

Control of the system is accomplished by utilizing Pelco’s KBD5000 keyboard, which provides for live viewing, recorded viewing, camera call-up and other features. Video is stored on a pair of 24-channel NVRs with a capacity of 4.8TB and 6TB, respectively.

“The beauty of an IP system is it allows for the expansion of future building,” Farrell says. “What we built was basically the central command. The developer has plans for additional buildings for retail, office space and entertainment. This head-end is going to house all of that equipment. You couldn’t do that with a normal DVR. You need an IP system to distribute the video.”

{+PAGEBREAK+} **Cable Runs Were a ‘Nightmare’**

While the Endura system and other security component installations went off without a hitch, the primary cable runs

from the head-end were a diabolically different experience. In short, conduit pathways were not installed in the parking structure during the development's construction. SmartWatch was shouldered with having to design the infrastructure after the property was built.

The parking structure was designed with three elevator risers; the cameras are stationed primarily around elevator lobbies and in all corners of the parking garage. But the security control room was built on the ground floor, smack in the middle of the structure and at a significant distance from the risers. Therefore, there was no way to connect from riser to riser.

"None of the risers are above the head-end. It was a nightmare. We really had to get creative to get the project cabled and still keep our encoders centrally located," Farrell says.

Nine 8-channel network encoders could have been placed in remote closets, which would have afforded SmartWatch to pull substantially less cable to each area. But for security purposes the system design called for placing the equipment in a single IT room.

"That was definitely one of our biggest struggles on this project," says Farrell. The solution was taking raceways from other divisions of the project. "It wasn't as simple as 'here are 4-inch conduits, pull your cable through there.' We had to reroute them, then go back to another area. It was a much harder undertaking to coordinate getting cable from one end to the other to get it to the head-end," he says.

Another answer to the predicament was to rely on the qualities of RG-6 coax. "That was a big part of the coordination. Anyone could've found a way to get a cable home, but keeping in mind the potential for latency and video loss on an extended run was a big part of the challenge," Farrell says.

Future Growth Plans on Hold

SmartWatch concluded its work at Veranda Park in January, having committed about 700 hours of installation time. The current price tag for the project — which included a distributed audio system for background/foreground music and paging — stands at \$696,000.

SmartWatch is signed on to take part in Veranda Park's ambitious expansion plans; however, the development company's owner has been forced to put the project on hold because of financing issues and litigation. Despite the setbacks, the town center's state-of-the-art security package is fully functional and is providing the intended peace of mind for its occupants and affluent shoppers.

"The development is very well secured," says Farrell.



The top level of a three-level parking garage at Veranda Park is accessible only to residents who pass through gates using HID Global proximity technology. The garage is also secured with emergency call stations and multiple video surveillance cameras on each level.

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