

CASINO SOLUTION IS INTEGRATION GAMING CHANGER

North American Video equips the new Maryland Live! Casino with an advanced video, access and POS solution. The intensive project is particularly noteworthy for its third-party VMS integration featuring digital recording with 800 IP cameras, and analytics logic engine for people and car counting.

by The Editors of *SECURITY SALES & INTEGRATION*

Developed by The Cordish Companies, Maryland Live! Casino represents an investment of more than \$500 million and is one of the largest construction projects completed in the Northeastern state this year. To oversee the acquisition and installation of a surveillance system, which is not only integral in protecting the casino's assets and patrons but also required by state regulation, Cordish called upon North American Video (NAV), an award-winning security integrator with 15-plus years of experience.

Complementing the three million square feet of retail, entertainment and commercial space that comprises the Arundel Mills Commercial District in Hanover, Md., Maryland Live! Casino is located midway between Baltimore and Washington, D.C. It sits on approximately 12 acres with more than 330,000 total square feet of gaming floor, restaurants, performance venues, bars and support

space. The gaming floor alone is about 160,000 square feet.

The casino features 4,750 of the latest state-of-the-art slot machines and electronic table games, including two high limit rooms. Other first-class amenities at Maryland Live! Casino include the Shop Live! retail store, a bus lounge and a secure covered 5,000-space parking garage that offers direct access to the casino floor. The freestanding casino is situated next to the mall, providing an ideal setting for those seeking dynamic gaming entertainment with the convenience of world-class retail and dining experiences, all at one location.

The project was marked by both its cutting-edge technology and installation challenges. The former involved a fully integrated video management and digital recording system featuring nearly 900 IP cameras, POS, access control, and video analytics for people and vehicle counting. The latter included tight scheduling,

coordinating with subcontractors and gaming industry compliance. The story illustrates how NAV made this complexity appear easy.

CHOOSING THE BEST SYSTEM

Having installed in excess of 500,000 channels of digital video to date, NAV is one of the largest independent security integrators in the world and has built its business primarily in the gaming market. Recent gaming projects completed by NAV include Las Vegas' City Center (the largest privately funded new construction project in the United States), Revel Casino in Atlantic City, Yonkers Raceway (N.Y.) and Scioto Downs in Ohio. Other recent nongaming projects include Red Bulls Arena (N.J.), Syracuse University and the Houston Ship Channel.

NAV first learned of the opportunity with Maryland Live! back when Maryland was considering allowing gaming in the state. "NAV has a formal process





1. Maryland Lottery requires the casino's 4,750 slot machines and electronic table games to be monitored 24 hours a day, seven days a week, by cameras recording 4CIF, 30 frames per second (fps) video. (Courtesy Maryland Live! Casino) **2.** Pelco cameras are tested in the casino's surveillance equipment room by Technician Edward Schaeffer before being installed. **3.** Six IDF closets throughout the front and back of house deliver video from nearly 900 cameras to the main system in the surveillance equipment room (being worked on by Synectics' Project Manager Daniel Gold). **4.** Surveillance Supervisor Charles McKeldin (far right) oversees video monitoring by surveillance operators in the Maryland Live! Casino control room.

ACCOMPLISHING 3RD-PARTY INTEGRATIONS

Included in the project design was a range of third-party software integrations — such as Micros point-of-sale (POS), Software House C-Cure access control and the casino's TCS vehicle counting system — to Synectics' Synergy video management software (VMS). While integration to POS and access control are more common in gaming installations, the request to tie the surveillance system to the vehicle counting system was more unusual. The casino's intent was to use Synergy as a data manager, enabling the vehicle counts (done by levels in the parking structure as well as total count) to be delivered to the digital readout sign at the two entrances to the parking garage. In order to gain optimal accuracy in the vehicle count, measures were put in place (motion detectors and guideposts) to ensure the flow of traffic on each of the seven levels in the parking structure was controlled.

Once the adequate controls were achieved, vehicle counting became more than 90% accurate, which is considered very high by industry standards. The casino intends to use this information to evaluate vehicle traffic patterns associated with certain times of the day or year.

NAV and Synectics performed an integration of Micros POS to the digital recording system that allows the casino's

surveillance operators to now use the VMS to call up either live or retained video with receipt numbers that include employee ID, and the date and time for the transactions. Individual operators are given the directive to review the transactions for integrity and/or accuracy to ensure there are no suspicious activities that indicate collusion or shrinkage.

The C-Cure access control system was initially being controlled by a hardware switch box and allowed surveillance to open doors throughout the property. By integrating the access control software to the digital recording system, entry into sensitive areas is controlled directly from the touchscreen user interface located at each operator station.

When a card is swiped at any of the 35-plus card readers located throughout the property, a pop-up window appears in the Synergy GUI with a picture of the team member that is requesting access. At this point, the operator is able to compare that image with an image of the team member accessed via the HR database (synced up-to-the minute with surveillance) to verify the person's identity.

Additionally, the casino wanted a way to determine whether patrons from the parking garage were going into the casino or into the retail center. To accomplish this, NAV installed Synectics' iSynx people counting video analytics. To acquire as accurate a count as possible, it was determined that visitors needed to flow from the parking garage elevators into a vestibule area. Here patrons either turn

into the retail space or into the casino.

Very specific camera placements are required to make this process work. A total of 16 cameras are being used and divided between people exiting the elevators, those exiting through the retail doors and patrons entering the casino through a designated entry sectioned off by stanchions. The count is generated and determined by the iSynx analytics server and then the net count is passed on to the Synergy VMS.

"Maintaining Maryland Live! Casino's standard of using leading-edge technology across its operations drove our choice of systems," says Valdez. "We are looking to set the pace for the nation's gaming industry regarding surveillance so Synectics' ability to deliver custom integrations was critical."

SIMPLIFYING A COMPLEX INSTALLATION

From the time NAV won the \$2 million project in December 2011 to the formal handover to Maryland Live! on Oct. 15, 2012, it presented a range of complexities that were to be expected from this large an installation. With surveillance installation being one of the last trades to start work, the schedule of construction proved to be very challenging.

"Because of the tight schedule, final programming and focus to pass gaming inspection was compressed into a short amount of time in order to be ready for the opening," says Jason Woodward, NAV operations manager. "NAV's experience with casino integration has prepared us for these situations so we were able to adjust to the time constraints with the necessary resources."

Also, to comply with Maryland gaming regulation, minority business participation was a condition of the contract, and it was under NAV's purview to schedule, coordinate and manage the construction

process to comply.

"While NAV worked directly for the end user, we coordinated with the general contractor who was responsible for hiring the local subcontractors working in the areas of low-voltage cabling, electrical and HVAC," says Woodward. "This proved to be a challenge because we were the face of the project to the customer and yet were not the ones actually hiring all the subcontractors."

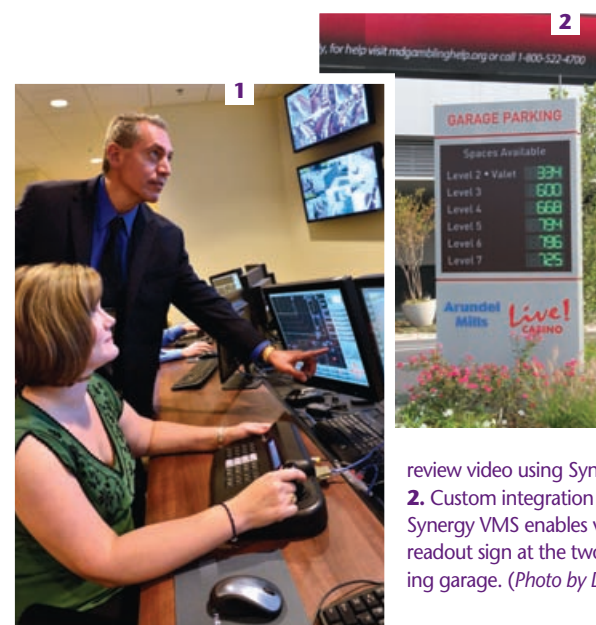
As a result, some extensive coordination was required by NAV to troubleshoot and resolve various issues that involved multiple trades.

Prior to slots arriving, an initial amount of cameras had to be installed, reviewed and approved by the Maryland Lottery to ensure adequate coverage as required by regulation. Because local vendors were hired to install cameras, some additional effort was called for to help them achieve the necessary camera angles.

Another aspect of the installation that offered unique challenges was the integration between the vehicle counting system, the parking garage display sign system and the VMS. Because this was an integrated solution that had never been done before, coordination between NAV, Synectics, TCS vehicle counting, and the sign company was key to getting the details needed to make the systems communicate with each other. NAV's onsite team was integral to facilitating this process and streamlining the entire project.

"Overall there was a great deal of coordination and cooperation required by all the major players, including the general contractor, vendors, state gaming, surveillance integrator and manufacturer, etc., in terms of understanding what was needed to meet the requirements for minimum camera coverage and risk protection," says Valdez.

According to Oakley, all parties involved have expressed their delight with the end product and appreciation for all the work that was done to overcome the inevitable obstacles in a complex construction project of this nature. "NAV looks forward to a continued long-term relationship with Synectics, Maryland Live! and The Cordish Companies," he says.



1. Maryland Live! Casino's Surveillance Director Marco Valdez and Surveillance Investigator Jessica Corso review video using Synectics' touchscreen Synergy user interface. **2.** Custom integration of the vehicle counting system to Synectics' Synergy VMS enables vehicle counts to be delivered to the digital readout sign at the two entrances to the casino's seven-level parking garage. (Photo by Daniel Gold, courtesy Synectics)

FIND IT ON THE WEB

See the online version of this article at securitysales.com/marylandlive for a complete equipment list of products and devices deployed for the project.

for tracking large gaming opportunities.

This opportunity has been in our pipeline since the initial stages of gaming approval in Maryland," says Company President and CEO Jason Oakley.

After winning the project, NAV's initial task was to work with the owner and its representatives to specify technology that would meet operational needs and the regulations set forth by Maryland Lottery to provide the casino with a state-of-the-art surveillance system.

"NAV has unparalleled experience in the gaming market and our team helped the customer select the appropriate technology to meet their needs," says Oakley.

Ultimately the casino selected a digital recording system from Synectics with Pelco fixed and pan/tilt/zoom (p/t/z) IP cameras, a Cisco 4510 network switch at the core and included Synectics' iSynx people counting video analytics. As a newly built property that would require a completely new surveillance team, the Maryland Live! surveillance department needed a system even novice operators could learn quickly.

"Synectics' Synergy video management system is very user-friendly," says Marco Valdez, director of surveillance, Maryland Live! Casino. "The touchscreen user interface is color-coded and easy

to navigate. It's simply one of the best systems available to introduce a novice to the world of casino surveillance."

NAV suggested Maryland Live! select an all-IP system because of the many benefits it offered. In addition to eliminating encoders, which saves rack space and simplifies cabling, troubleshooting and maintenance of cameras is streamlined. Additionally, using high-resolution megapixel IP cameras provides greater detail in the identification of cards, gaming checks, currency, personal IDs, cheating methods, etc. Future expansion is also made easier with an IP system as additional cameras may be easily integrated into the surveillance system.

On Nov. 6, voters approved a referendum to expand gambling in the state, which will allow Maryland Live! to proceed with plans to add live table games and expand its hours. Valdez anticipates adding up to 400 more cameras as early as March 2013, bringing the system to a 1,200+ camera count.

"With an all-IP system, upcoming expansions will be much more streamlined than had we gone analog, and enabled us to use cutting-edge video surveillance technology that will only maximize the success of our surveillance operations," says Valdez.