



Customer Study

Houston Open Successfully Returns to Memorial Park Golf Course Utilizing Milestone's Open Platform VMS

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Intent on bringing the Houston Open back to Memorial Park Golf Course, the Houston Parks and Recreation Department (HPARD) reached out to the Houston Living Lab (HLL), Milestone Systems, and their technology partners for assistance in designing and installing a security upgrade on par with the PGA Tour.

Challenge: Providing security at the largest golf tournament in Texas

The [Houston Open](#), a professional golf tournament held in Texas on the PGA Tour, is spread across 600 acres at [Memorial Park Golf Course](#). This raised security concerns for [HPARD](#) and golf course managers due to potential issues with parking congestion, vehicle theft or break-ins, safety of PGA players and fans, and criminal mischief among fans in parking lots and on the course.

Solution: Milestone Systems VMS easily integrates with technology partners

Working with security integrator [Teksys](#), HPARD and Memorial Park Golf Course chose [Milestone's XProtect® Pro+](#) open platform video management system (VMS) and XProtect License Plate Recognition (LPR) to easily integrate with various technology partners, including [Axis Communications](#) compact PTZ dome cameras, network zoom cameras, and panoramic cameras to monitor parking lots as well as the course during the Houston Open. Real-time monitoring through [Dell Technologies](#) workstations is enabled by [Verizon](#) fiber connections while a server from [Razberi Technologies](#) provides high-throughput video recording for 24/7 surveillance and storage.

Result: Year-round safety for high-profile events and daily rounds of golf

With the new security upgrade, the security and operation of the 2020 and 2021 Houston Open tournaments at Memorial Park Golf Course were successful in keeping property, players, and fans safe. The same technology now keeps 60,000 golf patrons and the course safe year-round.

July 2022

Organization

City of Houston
Houston Parks and Recreation Department
Memorial Park Golf Course

Location

Houston, Texas

Industry Segment

Government

Solution

Milestone Systems
XProtect Pro+

Cameras:

Axis Communications

Server:

Razberi Technologies

Workstations:

Dell Technologies

Wireless Network:

Verizon





Bringing the Houston Open back to Memorial Park Golf Course

Considered among the top 100 municipal golf courses in the country, Houston’s Memorial Park Golf Course opened in 1912 as a rudimentary nine-hole course with sand greens for use by recuperating soldiers based at Camp Logan. In 1936, it was expanded under the direction of famed golf architect John Bredemus. Memorial Park then went on to host the Houston Open on the PGA Tour 14 times, including the 1947 tournament, and the 1951 to 1963 events.

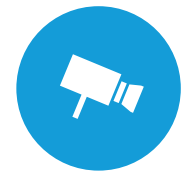
In 2018, the Astros Golf Foundation was formed to bring the Houston Open tournament back to its glory at Memorial Park Golf Course. To bring the course up to PGA standards and provide improvements for the general public to enjoy, the Astros Golf Foundation began work in 2019 on a \$34 million renovation of the golf course and related facilities. World-renowned golf course architect Tom Doak oversaw the renovation with consultation from PGA Tour superstar Brooks Koepka. For the first time in 57 years, the Houston Open was held in 2020 at Memorial Park Golf Course. The foundation will host and operate the event through at least 2023.

Today, the 600-acre 18-hole course draws more than 60,000 patrons each year. Under the operation of the Houston Parks and Recreation Department, the renovated golf course is now the second PGA-certified, municipally owned golf course in the country.

Providing park-wide security for high-traffic attractions

The golf course is just one of many attractions at Memorial Park, which provides nearly 1,500 acres of recreational green space for 4 million visitors each year. The park features the Houston Arboretum and Nature Center as well as facilities for tennis, softball, swimming, track, croquet, volleyball, skating, and cycling. A running loop and multi-use trails through the woods are popular among walkers and runners.

To better meet the safety needs created by the high volume of park visitors, the Memorial Park Conservancy (MPC) and Houston Police Department (HPD) Central Patrol launched an Urban Park Safety Program in Memorial Park in 2018. The program was designed to deter crime and decrease response times to park



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President,
Teksys



emergencies. A 911 trail marker system helps aid first responders in the event of an emergency. Signposts with geographic information system addresses are placed throughout the park to ensure park users can appropriately relay their exact location to law enforcement officers. The safety program also uses HPD off-road monitoring and a security camera access system to easily monitor Houston's largest urban-center park. MPC granted HPD Central Patrol access to Memorial Park's security camera footage, allowing officers direct access to security video in Memorial Park, eliminating time consuming paperwork to request access.

Even with those strong measures, the current golf course security system needed additional upgrades for the return of the PGA Tour.

When the Astros Golf Foundation began working on plans for renovating the golf course, HPARD knew safety on and off the links was more critical than ever. One of the ongoing security concerns at the golf course was deterring vehicle break-ins and criminal mischief, including people tampering with or damaging public property. Another ongoing challenge was finding an easy way to notify golfers of park closures and weather alerts.

In addition, the golf course now had new security concerns regarding the safety of players and fans during the Houston Open. To help solve these critical issues, HPARD turned to Teksys, the City of Houston's security integrator, and the Houston Living Lab for assistance in designing and installing an upgrade for the golf course.



The golf course uses Milestone XProtect LPR to detect license plate information from vehicle number plates and link it with video.

For the Houston Open, XProtect LPR helps golf course staff keep track of vehicles in the parking lot in real-time.

In the case of parking lot theft, LPR can be used by law enforcement agencies to track the movements of a suspicious vehicle.



Proactive security measures keep Memorial Park safe year-round

Without a solid security infrastructure in place at the Memorial Park Golf Course, HPARD looked to the HLL to determine which surveillance solutions would work best for the Houston Open. After a successful collaboration with Milestone Systems and other security manufacturers to rapidly deploy video technology for Super Bowl Live in 2017, the Houston First Corporation (HFC) established the HLL to help city entities test solutions and allow technology partners to validate their technology in an active environment.

"The Living Lab has a team of trusted partners, including both public and private professionals from manufacturers and integrators. This team analyzes sites



around Houston and determines the technology necessary depending on the needs of the location. For example, when the Houston Open became a publicly hosted event, we had to look at the security footprint for the event as the clientele changed from just a small number of amateur golfers on the course to thousands of spectators watching PGA pros. We had to strengthen security accordingly. Our trusted partners helped in supporting and expanding security infrastructure within our budget," said Jack C. Hanagriff, who was program manager at the City of Houston's Office of Public Safety and Homeland Security during the installation, but he has since retired. Today, he continues to advise on public safety issues as a consultant for the Houston Smart City Program through the Mayor's Office of Innovation.

Teksys, who managed the installation of the security upgrade at the golf course, recommended Milestone's XProtect® Pro+ for its open platform VMS and ability to easily integrate with an unlimited number of cameras.

The golf course also uses Milestone XProtect LPR to detect license plate information from vehicle number plates and link it with video. For the Houston Open, XProtect LPR helps golf course staff keep track of vehicles in the parking lot in real-time. In the case of parking lot theft, LPR can be used by law enforcement agencies to track the movements of a suspicious vehicle. Using XProtect LPR's reporting functionality, law enforcement officials can create a report showing the movements of a particular vehicle within a specified timeframe. The report includes a video thumbnail of the recognized vehicle, a close-up of the license plate, and details about the detection time.

"Milestone enables a small security team to handle large crowds at the golf course," said David Madrigal, president at Teksys. "The system effectively provides situational awareness across the course and in potential problem areas in the parking lot, quickly alerting security staff to issues."

For the project, Teksys installed 12 Axis cameras at 10 locations throughout the golf course, including a variety of Axis Q6115-E compact PTZ dome cameras, Q1786-LE network zoom cameras, and P3727-PLE panoramic cameras. Four cameras were installed outside of the clubhouse covering the vehicle and golf cart parking lots, one camera overlooks the driving range, and the remainder are located at certain holes throughout the course.

Milestone XProtect's alarm management system worked well with Axis' Network Horn Speaker C3003-E, making it easy to communicate with golfers and



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spectators about important weather alerts or park closures. Verizon supplied the fiber infrastructure, wireless backhubs, and connected broadband sites to the core network to ensure connectivity for the Axis cameras. Dell Technologies provided workstations to give administrators the ability to review footage in real-time.

Razberi Technologies installed the main server in the clubhouse. By using Razberi's open platform intelligent appliance combined with automated cybersecurity and health monitoring software, the golf course can reduce the likelihood of a costly cyber breach. The team installed the Razberi SSIQ24P-2-XE-40T ServerSwitchIQ Pro, which is an intelligent IP video surveillance appliance that combines managed switch, PoE, storage, cybersecurity, and health monitoring for edge recording and video viewing.

The security upgrade was completed within a year, according to Madrigal. With the help of the HLL and technology partners, security and operations for the 2020 and 2021 Houston Open tournaments were successful in ensuring safe events. HPARC continues to manage ongoing security at Memorial Park Golf Course with daily monitoring by the Houston Police Department, Urban Park Rangers, and an on-site security guard.

"More and more devices are coming out that can really enhance your video surveillance network, to make it smarter and to get that extra information," said Madrigal. "Milestone's open platform is helping customers adapt those new sensor technologies to become more effective and efficient."

About Milestone Systems

Milestone Systems is a leading provider of open platform video management software; technology that helps the world see how to ensure safety, protect assets and increase business efficiency. Milestone enables an open platform community that drives collaboration and innovation in the development and use of network video technology, with reliable and scalable solutions that are proven in more than 500,000 installations worldwide. Founded in 1998, Milestone is a stand-alone company in the Canon Group. For more information visit: www.milestonesys.com.



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