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VIDEO SURVEILLANCE

STANLEY Security Makes the Playoffs With Its Surveillance System at ‘The Cell’

In early 2010, the Chicago White Sox faced a far more pressing issue than trying to bounce back from a disappointing 2009 season. The video surveillance system installed at U.S. Cellular Field, where the team plays its home games, had become severely outdated to the point where it was more or less just warming the bench. U.S. Cellular Field, affectionately called “The Cell” by fans, is actually owned by the Illinois Sports Facilities Authority.

The analog video system, which had been installed in 2001, consisted of only 31 indoor/outdoor PTZ cameras for the entire facility, which seats more than 40,000 people, leaving a lot to be desired in terms of both coverage and video quality. For example, there were just two cameras on the stadium’s 500 level, both of which viewed stores and left the rest of the area with no video surveillance.

That’s when Naperville, Ill.-based STANLEY Security was called in, initially in a service capacity to evaluate the existing system and make recommendations for improving it, but the relationship quickly expanded from there, says Patrick Peterson, senior account manager for STANLEY.

“We were called in due to the failure of the video surveillance system and the non-ability of the company servicing it at the time to make the system function,” he says. “The Chicago White Sox decided to switch service providers to STANLEY, to service the system that was installed at the time. The technologies that they were using were outdated and quite frankly had no service life left by the manufacturers. So as we continued through the 2010 season ensuring that the system they had



PHOTO BY PETER NAZAROWSKI

New HDTV PTZs from Axis Communications mounted on signage at U.S. Cellular Field, home of the Chicago White Sox, are so powerful that they give the ballpark’s security staff views of the nearby Dan Ryan expressway. The park can divert game day traffic to different off-ramps and alternate streets surrounding the parking lots to alleviate congestion.

PHOTO BY SDM STAFF



STANLEY Security's Patrick Peterson poses on the 500 level of U.S. Cellular Field. STANLEY Security designed the surveillance system on this level and other levels, so that cameras are positioned to provide no gaps in coverage. A person of interest can be followed completely around the concourse without security personnel missing a beat.

was functional, it became very apparent early on that they would have to not continue to pour money into a system that had no expectancy of life past what we were able to do. That's when they asked us to start looking at the possibility of engineering a new system that would take them through the next five to 10 years."

The contract was signed in September 2011 and work on the project, led by a STANLEY Project Manager, began when the season wrapped up in mid-October. There was never any doubt

about the deadline for completing the overhaul though, as the White Sox were scheduled to welcome the Detroit Tigers to U.S. Cellular Stadium for their home opener on April 13, 2012. That meant that STANLEY would have less than six months to, among other things, build a new LAN from the ground up, remove the 31 existing analog cameras and replace them with 10 times that number, and overhaul the existing security command center.

Luckily, there were few weather delays

that winter, Peterson recalls. "We had great weather that year. I think it snowed maybe once or twice all winter," he says.

Because of favorable weather, well-thought-out planning, and the equipment arriving at a single location ahead of time, the project was completed on March 12, 2012 — more than a month before the home opener.

The new system consists of more than 300 high-definition cameras — high-definition fixed and PTZ models from Axis Communications, high speed license



U.S. Cellular Field's Troy Brown demonstrates the power of the new high-definition, megapixel video cameras from the ballpark's rebuilt security command center, where security is a part of the entire guest experience. Brown emphasizes that gate entries and alcohol management are the two greatest security risks the ballpark faces.



180-deg. Arecont Vision cameras are mounted to provide panoramic concourse coverage.



PHOTO BY SDM STAFF

PHOTO COURTESY OF MARK MCCORMACK



Throughout the stadium concourse levels, 3-megapixel dome cameras from Axis Communications offer coverage for the ramps.

PHOTO BY SDM STAFF



The new security system at U.S. Cellular Field provides video surveillance at the entrance to the players' Clubhouse. This is important because of its location in "the tunnel," a concourse that includes entrances that are accessible to the general public, as well as private areas such as the Clubhouse. A 180-deg. Arecont Vision camera is mounted at the top of the brick wall, on the left.

plate recognition cameras by Genetec, as well as 180 and 360-degree cameras from Arecont Vision positioned on the perimeter of the ballpark. The cameras working as a team permits security personnel to simultaneously see in multiple directions and to monitor traffic flow. In addition, the system is supported by an engineered LAN installed specifically for the video system, a new Genetec video management system that works with the STANLEY Commander PSIM to provide touchscreen access to cameras and other future security applications. A completely gutted and redesigned ultra-modern command center provides the perfect command setting. In addition to providing interior stadium coverage, exterior mounted cameras provide full perimeter coverage to remote parking lots using a wireless mesh technology that allows the security team to view the entire grounds.

The system's design was initially based on observations of the original command center during game times, including the video coverage the security team had and the number and type of calls coming in from the field. One of the challenges, Peterson says, was that there simply weren't enough cameras to get video coverage of incidents

that occurred at the stadium. "It became apparent that that lack of coverage was actually debilitating to the efficiency of their operation out there," he says.

Once Peterson and the team he'd assembled had compiled their scouting reports, they drew up a game plan to identify the U.S. Cellular Field team's goals and choose cameras that would specifically address those goals.

"A lot of the design was around giving them what they needed to first protect the general public while they were there, protect the property and then be able tell a story. Many times they would get a call and by the time they were able to swing the camera around, 90 percent of the event was over with," Peterson describes. "So we designed it around pedestrians and vehicles coming to and from the park, and by doing it that way, the cameras we selected were strategically placed to capture that type of application, as opposed to a general application."

It was a painstaking process that involved strategically analyzing not only which camera model would be used for what purpose, but also identifying the optimal location for each camera, the idea being to not only provide the necessary coverage but also eliminate the need for

multiple cameras to cover the same area, Peterson said. As a result, STANLEY employed nine different camera models that are based on specific applications.

Once selected, the STANLEY Convergence Center of Excellence (CCE) in Noblesville, Ind. played a major role in interfacing each of the cameras. Dedicated to enterprise-level integration solutions, design, delivery and support, the STANLEY CCE programmed the system before sending it to U.S. Cellular Field for installation. The end result is a network of cameras that facilitates tasks such as "following" a specific individual — for example, someone who may have been ejected from the ballpark — so there are no gaps in coverage as he is escorted from "the bowl" (seating area), to the concourse, to the ramp, to the exit gate. "We can follow a person who is going to get ejected, all the way through the stadium. Any act that they commit against any of our security personnel, it can all be captured," notes Steve Cardona, event security manager, retired Illinois State Police Master Sergeant.

In another example, the security team was able to forensically follow a person who had stolen an autographed baseball hat that was being silently auctioned.



PHOTO BY SDM STAFF



HD video cameras mounted on the outside of the structure serve two purposes: the higher camera provides views of parking areas; the lower cameras view the sidewalks and gate entrances. In parking lots, of which U.S. Cellular Field has six, wireless technology transmits images to the VMS.

Using views from several cameras, they watched him and his friend distract ballpark personnel, steal the hat, and walk back to their seats with it. A live camera view then confirmed that the suspect was back in his seat and had given the hat to his son. This enabled the security team to solve a crime they wouldn't have been able to solve using the old system.

"Our engineering and strategic placement allowed us to put the right camera in the right place," Peterson describes. From the gates and ramps, to the concourses, to the broadcasting area, to the hallways in the private suites, even to cameras looking out from the scoreboard, each is strategically placed to enable U.S. Cellular Field to provide the best guest experience. Peterson also describes the MLB camera, a 5-megapixel model mounted behind home plate, which provides very sharp detail even out to what's called the Infinity deck beyond center field. "It's called the MLB camera because it's required by Major League Baseball. They have to have a record of everything that happens in the playing view completely. We needed one camera that could pick up everything; it is the AXIS P3367 [fixed dome]," Peterson describes.

The entire surveillance system delivers high-quality video and makes it easier for security staff to quickly identify what happened before, during and after an incident, which is a major improvement over the facility's previous system, says Troy Brown, senior director of stadium operations for U.S. Cellular Field, who is in his 20th season with the White Sox and oversees crowd management.

Brown describes the key operations staff who work in the command center on game days. This staff includes a parking lot supervisor who watches the cameras for traffic conditions, ingress in the parking lots, and quality assurance as well as safety for the parking lot cashiers. It also includes a security supervisor who monitors the ballpark's radio channel for the security operation, so that cameras can be trained to any location where an incident is reported by one security personnel using radios; two video surveillance operators who handle the equipment; a guest services person; and a ballpark operations person who logs all of the radio calls into the incident management system.

"The idea is that any radio call funnels through this room so that all of the needs

of our fans get taken care of, whether it's a wheel chair escort or a seating problem or a ticket issue — a spill on the concourse to a fight in the stands — that room captures everything," Brown explains. "There is a fine line between security and the guest services experience and it all ties together. It's quality assurance and we're able to enhance quality assurance using the video system." Brown's effectiveness is furthered by the ability to have camera views on a mobile device as well.

"We've totally enhanced our capabilities — we're able to see more and we're able to video more. One of the big aspects of what we have with this current system is that it allows us to go back in time. So if we don't have a camera focused on a situation, most likely we have a camera that will be on that area and we can go back in time and figure out what happened so that the security guys who are responding have more information," he says. "Usually when you get there, everyone's pointing fingers at everyone else. Now you can go back in time and say, 'No, it was the guy in the Konerko jersey who threw the beer first.' It really helps us get a lot more accurate read on what's really going on."

In just two seasons, the video system has proven its value over and over, from helping to reduce the incidence of smoking at the stadium, to identifying those who have perpetrated crimes both inside and outside the facility and creating a safer environment for fans and stadium personnel alike. And while the system went live for the 2012 season, Brown says his team really started to get a handle on all the functionality during the 2013 season, adding that there's still more to learn in 2014 and beyond.

"This was just our second season, so we're still getting our feet under us. There's so much capability that we never had. We're still trying to catch on to some of the stuff that we're able to do. So we're growing as we go," he says. — **By Derek Rice, Contributing Writer & Laura Stepanek, Editor**