



The open platform company



Utah Transit Authority Saves Time and Money with Milestone IP Video to Optimize Safety for Passengers

“I would say that already this year Milestone has saved us tens of thousands of dollars by allowing us to better monitor and investigate transit incidents and accidents.”

– Lamont Worthy, Video Security Administrator, Utah Transit Authority

Situation

Previously, the Utah Transit Authority’s (UTA) video security system was limited by the capacities of its servers. In 2013, it had reached the maximum of 500 cameras operating on three servers (one for management, two for recording), which made it impossible to expand the system by bringing additional cameras online. In addition, UTA was in the midst of building a new line out to the airport, and was eager to display an improved surveillance system to state dignitaries. What UTA needed was a much larger video surveillance system that would also be more efficient.

Solution

UTA enlisted Stone Security to help choose a security system that best met its specifications. Together, they determined that Milestone XProtect® video management software (VMS) best suited the UTA’s needs. In 2010, Stone was named the Milestone Systems Installation Partner of the Year. In 2013, in addition to being named Regional Partner of the Year, it also became the world’s first Milestone Diamond Reseller. As a Utah-based company, Stone also had the advantage of being intimately familiar with UTA’s structure and requirements.

As of early 2015 UTA has deployed over 1,000 cameras from a mix of vendors: Axis, Panasonic, IQEye and Digital Watchdog. The system runs on nine HP servers provided by BCDVideo (eight for recording and one for management). With this system in place, UTA can expand to 2,000 cameras or more. The security cameras are accessible by dispatch, commuter and rail control centers and other authorized users.



Advantages

As an organization committed to providing passengers with an optimal riding experience, switching to the Milestone system allowed UTA to put more cameras on platforms while centralizing the control system. Milestone reduces the time spent by UTA employees attending to security issues without burdening riders. In addition, the significant improvement in video quality makes it easier to monitor and investigate incidents.

Institutional Profile

UTA employs 2,200 staff and moves approximately 120,000 passengers daily. It services Salt Lake Valley, Park City, Provo and Brigham City with 90 miles of commuter rail and 50 miles of light rail. It utilizes transportation modes consisting of fixed route buses, commuter rail trains, light rail trains, paratransit buses and vanpool services (rideshare).



Open Platform and Flexible Storage Translates to a Better System

Brent Edmunds, co-founder and president of Stone Security, knew that Lamont Worthy envisioned UTA operating a robust security system that was both easy to operate and flexible. Taking those priorities into consideration, he determined that Milestone technology would best fit UTA's needs.

"UTA doesn't have cameras everywhere," Edmunds said. "Instead, it deploys them in key locations, like facilities, onboard buses, and rail stations. The system supports many different kinds of cameras. Milestone marries two critical components for them: a centralized system and a lot of diversity in its deployment."

Lamont Worthy is the Video Security Administrator for UTA. He was impressed by the Milestone open platform, which allows a "best of breed" software integration model. In addition, the open platform ensures UTA's system isn't tied down to any one technology. At the same time, it accommodates future growth and expansion. The flexible storage options made possible by the Milestone technology allow UTA to change its server options at any time.

Saving Money and Lives

The use of Milestone technology is having an immediate positive financial impact for UTA. UTA gate arms frequently get damaged or broken off by a truck or passenger vehicles. Prior to Milestone installation, these incidents would not only be costly but would often go unresolved.

"We were looking at two or three damaged gate arms a week," Worthy says. "It's usually around a thousand dollars per gate to repair. Now, the new camera deployments give us the means to recover those costs. Utah police can follow up and interview persons of interest, and attorneys can choose which of these cases to pursue. I would say that this year alone Milestone has already saved us tens of thousands of dollars. We are moving to a time where the system will actually pay for itself."

Other savings are more difficult to quantify, but no less important. Worthy says the Milestone system is one of the key components in resolving several serious crimes that local police agencies investigate.

"Our cameras have captured crimes that occurred off UTA property, and these videos were provided to local police to assist with their investigations. Without our new video deployment, who knows how many man-hours might have been spent on these cases. We're talking about lives in some of these cases - and you can't put a price on that."

Better Public Transit Lures New Businesses

Utah grew twice as fast as the rest of the country in 2014. The state is currently home to 3 million people, a number that is expected to double by 2050. However, more than 80 percent of the population is concentrated in a 90-mile strip between Ogden and Provo. This kind of concentrated growth highlights the need for a reliable, secure transit system.

Worthy believes that investing in UTA is tantamount to investing in the local economy. Twitter moved its data center to the Salt Lake area in 2010, for example, and eBay opened up a 24,000 square foot facility in Draper across the street from a commuter rail station in 2013. Worthy knows that a top-notch public transit system makes the region more desirable to businesses that are considering relocating.

Utah politicians often point to UTA as a major selling point in their pitch to new businesses. Utah in winter can get some chilly temperatures, lots of snow and little wind, which at times can act like a lid holding in the air. Worthy says the region is committed to better air quality, which would also attract more businesses. Since Milestone helps make UTA a safer, more



efficient transit system, it can contribute to a higher volume of riders and fewer cars on the road adding to pollution levels.

“UTA means business,” Worthy says. “It means going from point A to get to who and what is important to you. In addition, the fastest and most productive way to improve air quality is to have a robust transit system. Milestone is a critical part of that equation.”

UTA’s mission statement says it best: Utah Transit Authority strengthens and connects communities enabling individuals to pursue a fuller life with greater ease and convenience by leading through partnering, planning, and wise investment of physical, economic, and human resources.”

A More Secure Transit System

Worthy knows that passengers put a premium on safe public transit. If something does happen, UTA has the means to officially capture the incident, and not just have to rely on someone’s iPhone.

One of the most important features of the Milestone system is Evidence Lock, a new function that secures select video recordings for investigations. Evidence Lock allows Milestone clients to extend the retention time for video recordings from selected cameras in a set time interval by overriding normal video retention policies.



“The encryption and protection Milestone places on its exported video is a key factor of its ability to be presented in court,” Worthy says. “If I have to authenticate a video, I can say with full confidence that this footage has not been tampered with.”

Unlike an audio video interleave (AVI) file, video footage from Milestone has authenticated time stamps. Evidence lock also allows UTA to easily sift through videos to review and determine the appropriate actions to take.

Preventing Accidents Before They Happen

Another benefit to the Milestone system is that it acts as an early warning system. UTA has cameras stationed at some of its bus garages. Worthy says these cameras can zoom in to focus on substances pooling on bus floors to quickly detect if one of the buses has a leak.

The video system has also been used to prevent more serious incidents. When UTA had a truck stalled on a train track, the truck driver did not call in to report the incident as he was supposed to. However, a camera caught the incident, and a technician called Union Pacific to let them know what was happening. UTA operates in a rail corridor adjacent to a freight line. Once a freight train conductor sees potential danger, he has a limited window to stop the train. In this instance, Milestone helped avert a potentially serious accident.

A User Friendly System Makes Everyone’s Job Easier

One of the biggest draws of the Milestone system for Worthy was its user-friendliness. As opposed to being bombarded with complicated new technology, Worthy says he was able to navigate the new system with ease.

“It’s basically point and click, with very clear guiding tabs,” Worthy says. “There is a tab for playback, and clocks and icons that logically guide you depending on how you want to manage



it. You can train someone in minutes. Everyone who uses Milestone loves it because it makes their job easier.”

The system, camera and server upgrades are done late at night when commuter traffic is minimal. Otherwise, the cameras are always running, which Worthy knows is important to the control center employees. Worthy says UTA’s more than 1,000 cameras are upgraded with no hassle. The situation is a win-win: Worthy gets new system perks but his employees don’t need to be retrained.

“After the first time I use a feature that Milestone has brought to the table, I almost always ask, ‘How did I ever live without this?’” Worthy says. “It’s a living, evolving system. It used to be that you’d buy a system and when it no longer met your needs you had to start over. With Milestone, you get new features without incurring a huge cost.”

A Server-Based System Saves Time and Energy

UTA has equipped its system with monitoring alarms in 19 different locations, mostly in remote bungalows that require navigating through difficult terrain. Before implementing Milestone, an alarm meant that a UTA tech employee had to drive to the location to check the cause. If the employee was based in Salt Lake City heading to a remote place, it could take a half hour each way, which meant UTA had to pay overtime. The Milestone system lets staff access the video remotely; if someone determines the alarm isn’t serious, he does not have to make the trip, which saves time, money and manpower.

UTA is considering incorporating Milestone Interconnect, a unique system concept that allows all Milestone products to be interconnected through the premium software, Milestone XProtect® Corporate. Milestone Interconnect provides a cost-efficient and flexible way to gain central surveillance operation across geographically dispersed sites, no matter which Milestone VMS is used in each.

“Milestone Interconnect would allow us to link disparate nodes of the network together,” Worthy says. “This would give police centers the ability to share our camera feeds.”

Worthy learned about Milestone Interconnect by attending the 2015 Milestone Integration Platform Symposium (MIPS). He says that his boss does not have to worry about him travelling because of Milestone’s impressive remote capabilities. When away, Worthy is able to access a virtual private network (VPN) and log into the video system to check on its status.

“My boss feels confident letting me attend conferences and seminars across the country because they help me ensure we have the best possible system,” Worthy said. “The ability to be thousands of miles away and still easily access the system is priceless.”

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