Challenge

With a growing number of riders, maintaining a safe transit environment has become a top priority for Community Transit.

Solution

Community Transit installed 19 Avigilon five megapixel cameras at the Kasch Park Operating Base and installed seven Avigilon five megapixel cameras at the Merrill Creek Operating Base, in addition to a two megapixel camera inside the vault room where cash is counted, and a three megapixel camera in the lobby for greater coverage. Community Transit manages the Avigilon HD Surveillance System using Avigilon Control Center software with HD Stream Management and has installed one Avigilon HD network video recorder (NVR) at each site to store one week of continuous surveillance footage.

Benefits

Leveraging the high resolution images captured by Avigilon's megapixel cameras and the advanced features of Avigilon Control Center, Community Transit has reduced investigation times substantially, saving thousands of hours in investigation time. Delivering a stronger price/performance ratio than other HD surveillance systems, Avigilon offers better clarity with fewer cameras than a conventional analog-based system, and is cost-competitive. Community Transit also enjoys a strong, mutually beneficial relationship with the Avigilon team, which delivers prompt support when required to keep the system up and running.

- *Quick Incident Resolution*
- *Reduced investigation times*
- *Better clarity with fewer cameras*

Community Transit Provides Safety at its Facilities with HD Surveillance

With the rising cost of gas and increasing environmental concerns, many public transit systems across North America are expanding in response to increased rider demand and in an effort to reduce traffic. Community Transit in Snohomish County, Washington is no exception: last year alone it provided nearly 12 million passenger trips. With a growing number of riders, maintaining a safe transit environment has become a top priority. As part of a five year security plan, Community Transit has replaced an old analog surveillance system at its two base operations sites with an Avigilon High Definition (HD) Surveillance System to capture higher quality images for faster identification in the event of an incident, ultimately leading to improved overall security.

Reducing Threat and Vulnerability Level

Servicing a 1,297 square mile area with more than 650 employees, Community Transit is one of the larger transit systems in the region with two base operations sites – Kasch Park and Merrill Creek – to service its fleet of more than 317 fixed route buses and 391 vanpools. In 2005, Community Transit underwent a threat and vulnerability assessment and realized that to improve security, a new surveillance system was in order. **"Previously, we had a mix of VHS and DVR systems that were cobbled together to create a surveillance system that was unable to meet our needs,"** explains Don Burr, risk management analyst at Community Transit.

Community Transit houses most of its critical infrastructure at Kasch Park and Merrill Creek including diesel storage, fuel islands, bus and vanpool fleets, and surplus vehicles, so having a surveillance system in place to capture clear images of any person or vehicle entering the sites was critical. **"With our previous system we could not capture any incident – whether it was a car theft or suspicious person – with enough clarity for identification,"** notes Burr. Ensuring employee safety was also a priority.

Community Transit was first introduced to Avigilon at a Law Enforcement and Emergency Services Video Association (LEVA) meeting and was quickly sold on its performance and enhanced functionality. **"The Avigilon HD Surveillance System offers the image quality and advanced features we need to perform forensic video analysis,"** notes Burr.

"The Avigilon HD Surveillance System offers the image quality and advanced features we need to perform forensic video analysis."

HD Surveillance Delivers Birds-Eye View

Community Transit installed 13 Avigilon five megapixel cameras at Kasch Park and seven five megapixel cameras at Merrill Creek, in addition to one two megapixel camera inside the vault room where cash is counted, and a three megapixel camera in the lobby for greater coverage. At Kasch Park, the Avigilon cameras are mounted on the second story of one of its four buildings to provide a 360-degree view of the whole base. **"These cameras give us a birds-eye view of everyone who enters and exits our base,"** explains Burr. At Merrill Creek, the seven five megapixel cameras are also strategically placed to supplement areas that are not covered by the existing analog cameras. **"We had some dead spots on the exterior, so we installed Avigilon five megapixel cameras for improved performance and clarity."**

Burr seamlessly manages the Avigilon HD Surveillance System using Avigilon Control Center network video management software with HD Stream Management and has installed one Avigilon HD network video recorder (NVR) at each site to store up to one week of continuous surveillance footage.

Image Quality A Huge Advantage

The fact that Avigilon's HD megapixel cameras collect a higher resolution image than a conventional analog camera was a key selling feature for Community Transit. **"With the Avigilon megapixel cameras, we can zoom in on a specific detail with excellent clarity while maintaining full situational awareness – not possible with a PTZ camera where you can only zoom in live and therefore lose the full picture,"** notes Burr. Using the Avigilon HD Surveillance System, Burr can record a wide area and go back after the event to zoom in and get the required detail.

According to Burr, the difference in image quality is night and day since deploying the Avigilon HD Surveillance System. **"Compared to the image quality we captured with our previous system, it was like flipping the light on when we installed the Avigilon solution,"** comments Burr. With the Avigilon megapixel cameras in place, Burr can capture images up to 150 feet for full facial or license plate recognition. Recently, a car was broken into at night and Burr was able to provide the police with useable, clear images of the individuals who had entered the yard. **"By adding automatic infrared filter technology to its cameras, Avigilon can deliver exceptional image quality and detail regardless of the lighting conditions."**

Maximum Quality, Minimum Storage

The Avigilon HD Surveillance System with HDSM utilizes JPEG2000 compression and adds a wrapper to automate camera functions, delivering maximum image quality and frame rates while minimizing bandwidth utilization. **"Avigilon's use of JPEG2000 compression was a key advantage for us, because we knew it would deliver exceptional image quality while reducing bandwidth and storage requirements by only sending the image detail required,"** says Burr. With Avigilon, Community Transit can also allocate more storage capacity to recent events and program archived surveillance video for maximum record times, preserving the quality of the video, yet maximizing storage for more days of detailed HD video.

"Compared to the image quality we captured with our previous system, it was like flipping the light on when we installed the Avigilon solution..."

An End-to-End Surveillance Solution Saves Time

Avigilon's end-to-end HD Surveillance System combines HD and multi-megapixel IP cameras with Avigilon Control Center network video management software designed specifically for HD performance for improved overall performance. **"Avigilon Control Center is extremely easy to use and enables me to record, store, and efficiently manage all the evidence captured by the HD cameras for greater efficiency and more successful investigations,"** claims Burr.

Using Avigilon Control Center, Burr has been able to save hundreds of hours in investigation time. With the old surveillance system, if an incident occurred over the weekend, Community Transit security professionals might have to review all 48 hours of footage to find the event in question. **"By using Avigilon's pixel search feature, I can pinpoint an area and only review footage that involves movement, which helps me quickly drill down to a specific time period, literally saving me hours of work,"** explains Burr. **"If I already have a specific timeframe, it may only take me minutes to find what I need and produce a video disk of an event."**

"Avigilon Control Center is extremely easy to use..."

Strong ROI and Support

According to Burr, Community Transit could have upgraded his previous surveillance system by simply adding more analog cameras, but the agency knew that would not improve the image quality. **"The cost/performance ratio of the Avigilon HD Surveillance System is better than anything else we could realize."** In addition, Burr says that the Avigilon HD Surveillance System was significantly less expensive than other HD vendors: **"Other bids were thousands and thousands of dollars over what Avigilon offered."**

Burr has also been impressed with the level of support he has received from the Avigilon team. **"Avigilon checks in regularly just to make sure everything is going well,"** notes Burr. **"We have a mutually beneficial relationship in which I share industry contacts and information, and Avigilon uses my feedback to make product updates and enhancements."** According to Burr, Avigilon also does a great job of keeping him up to date on product and technology developments and when support is required, the team responds with prompt, helpful service.

The Road to Safety

Community Transit has a rich history of embracing innovation and change to make public transit an easy, environmentally sound, and safe way to travel for the citizens of Snohomish Country. **"We are always looking for new ways to improve service – and safety is always an important consideration,"** concludes Burr. **"The Avigilon HD Surveillance System has set a new standard in surveillance that we will continue to strive for in future projects across the organization."**

"The cost/performance ratio of the Avigilon HD Surveillance System is better than anything else we could realize."