CASE STUDY | SAFE CITIES

GOSFORD DEPLOYS PELCO END-TO-END VIDEO SECURITY SOLUTIONS FOR STREET SAFE INITIATIVE

THE CUSTOMER

Central Coast Council has built a comprehensive video security solution covering multiple towns across the council area with a combination of Pelco fixed and PTZ cameras supported by Pelco’s VideoXpert VMS and installed by ECS Services. A recent upgrade to the Street Safe solution has seen the latest technologies introduced to key parts of the system.

Central Coast was among the first council areas in New South Wales (NSW) to install video security solutions and began rolling out its Street Safe solution nearly 15 years ago in response to requests from the local community. The first cameras were installed in 2004, meaning Pelco and ECS have been partnering with Central Coast Council for approximately 15 years. The original system was analogue and was installed in and around Gosford, then expanded to Umina. Next came upgrades at Gosford and Umina and an expansion to Woy Woy, as other businesses fed up with property damage sought CCTV to protect their premises.

With the help of John Adams from Security Electronics & Networks, we are able to hear from Sergeant Steve Hassett and Senior Constable Don Buchanan from NSW Police as they share the challenges and solutions that the system solved with Craig Cobbin from Pelco.

THE CHALLENGE

Every CCTV solution has an operational imperative shaped by its application. Central Coast Council’s Street Safe project is no different. The system is designed to give serious coverage over long distances — that means many of the cameras are PTZs. The Central Coast Council area, with its population of 325,000, comprises the growing city of Gosford as well as multiple smaller suburbs spread across an area that gets busy in summer and holiday periods. The sprawling nature of the council area means each remote location requires a similarly serious CCTV solution. At the same time, multiple remote locations monitored centrally demand serious infrastructure, even if recording is local.

It’s in this context that integrator ECS and manufacturer Pelco have worked with Central Coast Council to upgrade key remote locations of the existing solution, providing operators the benefits of the latest cameras and management solutions, while at the same time taking advantage of improved infrastructure. “Video feeds from the multiple towns around the council area arrive back at Gosford Police Station on a combination of fiber and point-to-point wireless feeds,” Sergeant Steve Hassett explains. “Officers can follow events, record, and inform patrol officers if there are any issues. The system also has a significant role to play with investigations.”

THE SOLUTION

“The Pelco system allows the images displayed to be quickly changed to meet requirements — we can set up different patterns depending on what’s happening,” says Sgt. Hassett. “We can drag image streams across and mix and match — we might want to keep an eye on a busy beach or waterfront area and a main shopping area and adjacent streets. We also keep tabs set up for areas such as Gosford, Umina, Woy Woy, Erina, Copacabana, Ettalong, Terrigal, as well as the Kariong and Kincumber underpasses. We have 48 cameras in Gosford and 108 in all — a mix of fixed cameras and PTZs, which gives us plenty of cameras and the storage capacity of the system is 288Tb, which is considerable, though there are some where we would like more.”

Sgt. Hassett continues, “The performance of the 360-degree views from the Optera is amazing but the storage demand is heavy so that has to be managed — we have 20 x 12MP cameras stored locally and streaming over fiber so they can be viewed here — that long path can lead to issues at the monitoring end — only a couple of cameras can be viewed at a time.”

According to Pelco’s Craig Cobbin, the upgraded video management system is the latest Pelco VideoXpert and is supported at multiple locations by powerful workstations linked to local storage servers. Recording and display are both at 25ips and 1080p and the bulk of the Street Safe cameras are Pelco Spectra PTZs. “VideoXpert is ideal for this sort of application,” Cobbin says. “It’s fault tolerant, distributed architecture builds in multiple levels of redundancy and the system can be deployed as a hardware or software solution. It’s possible for users to create and assign tags and to organize network resources as they like, with full support for immersive wide-angle Optera panoramic cameras, which are used to cover a carpark at Gosford.”
CASE STUDY: GOSFORD, NEW SOUTH WALES

Something else that’s important for the police and council operators is VideoXpert’s VxOpsCenter, which is an operator console that delivers users an intuitive interface capable of accessing and managing video from anywhere in the system, VxOpsCenter also supports up to six configurable monitors displaying up to 16 video streams simultaneously – that’s ideal for locations like the Gosford Police Station Duty Room where police officers can jump in and select the camera views they need to see.

“The zooms on the new PTZs we’ve had installed during this latest upgrade are very capable – we can pick up number plates, which we could not do before,” says Sgt. Hassett.

“We also use the system to keep an eye on events around licensed premises but most of the drive behind the system is operations or investigating events – a person may attend the station after being assaulted and robbed and investigating officers can get onto the system and find footage,” says Sgt. Hassett. “Alternatively, if an event is witnessed by officers, they can begin to record the incident and then manage a response in real time. In that respect too, the system is a massive help to police. We try to set the cameras up to maximize the coverage we can get at key times – for instance, a PTZ in a key location may move to another preset at a particular time of the day.”

By this time, Sgt. Hassett is sitting in the driver’s seat and steering a remote PTZ at a beachside location. The wide-angle view of the Pelco Spectra is glittery sharp and its capability is underlined when he starts zooming down the street and under the awning in front of a deeply shaded shop. The camera gives police all the information they might need in the event of an incident – it’s great performance.

“Something else we have noticed is that when a streetlight is directly in front of the camera it will impact on the scene, however, looking at some of these other camera views such as this one in Terrigal (he clicks open a camera), you can see that in most cases performance is excellent – having gone from what we had to what we have now – the performance is just exceptional,” Sgt. Hassett says.

When it comes to operation of the PTZs with fixed positions or scheduled presets, Senior Constable Don Buchanan sets these up based on operational intelligence – some views will be on licensed premises during the night. “Outside these times the cameras will go back into a wider-angle view that offers situational awareness of a wider area,” Sgt. Hassett explains. “While newer cameras do this automatically, others need to be moved by the team manually. We have quite a few different operators using the system at different times.”

Perhaps the most important element of the Street Safe system is the end user buy-in. Council and local police are serious about the system and always have been. The layers of regular upgrades, each one chiseling away yet another issue to facilitate enhanced operational performance, attesting to the value Council places on its Street Safe solution.

NSW Police officers are keen too. “The Street Safe system is used all the time for police investigations - so much so that if we have a camera go down, which happens in a system of this size, it may really hamper an investigation,” Sgt. Hassett says. “Very often during criminal investigations, courts want video proof of an incident before they will record a conviction and that makes the upgrades made over the past 18 months very important from the perspective of NSW Police.”

“Operationally you always want more performance, but the upgraded system is fantastic,” Sgt. Hassett says. “Only recently we had an incident with a young person threatening self-harm at night – this person was talking to a team member from Lifeline but had moved from their original location and could not be found by attending officers in the darkness. In the past, we might have had a situation when we simply could not find the person but by being able to view earlier high-quality footage we quickly established the person’s precise location and attending police officers brought them to safety.”

The upgrade of Central Coast Council’s Street Safe system is impressive. There are elements of legacy gear still in evidence, including monitors in the duty room of the police station but the cameras in the areas upgraded are all the latest gear and deliver excellent performance in real time, as well as when viewing recordings. Taken as a whole, this is no easy application – just a single component of it would be challenging enough.

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