



State Railway of Thailand uses Oncam's 360 technology to safeguard 40 million passengers

CLIENT

State Railway of Thailand (SRT) is the largest enterprise in Thailand, with a total route of more than 4,000 km. SRT currently employs more than 26,000 people and carries more than 40m passengers per year.

CHALLENGE

State Railway of Thailand used traditional pan-tilt-zoom (PTZ) cameras across their network, which allowed users to control the direction of the recording. Supervisors missed critical information and incidents when the PTZ were pointing in the wrong direction, and the cameras suffered from low reliability as moveable components broke down too easily.

SOLUTION

Working in partnership with Agilis Technology, Oncam's 360-degree cameras were installed in each station, in areas that required wider view recording. Oncam's 360-degree technology allows users to capture high-resolution image recordings of the entire scene, independent of what the operator is viewing live.

RESULTS

Footage from Oncam's cameras has increased SRT's situational awareness in regards to emerging threats and incidents. They now have the means to decrease risks, identify problem areas and aid police in criminal investigations, resulting in safer operations for passengers and employees.

Bangkok, Thailand, sees more than 20 million tourists per year, and is one of the world's most visited cities. With a population of close to 68 million people, it has the second largest economy in Southeast Asia. Considering the constant influx of people each year, public transportation is a critical part of tourism, and Thailand operates one of the biggest, most complex systems in the world.

State Railway of Thailand (SRT) is the largest state enterprise in Thailand, with a total route of more than 4,000 km. The SRT currently employs more than 26,000 people and carries more than 40 million passengers per year. This level of usage requires robust video surveillance to keep passengers and employees safe and secure, while providing situational awareness or investigative capabilities in the event of an incident.

Missing incidents with unreliable system

Before seeing upgrades to its video surveillance system, the SRT used traditional pan-tilt-zoom (PTZ) cameras, which allowed users to control the direction of the recording. "But we found that the supervisor did not control the camera at all times. So, at times, no one controlled its direction", said Sujit Chaosirikul, Chief Signalling and Telecommunications Engineer, SRT. "Also, the PTZ itself suffered from low reliability. Its movable components broke down easily."

SRT called on integrator Agilis Technology to help build a reliable security surveillance platform for its enterprise. Agilis provides customers

with total solutions for physical security, including IP cameras, storage, video management systems and access control. Nakrop Niamnamtham, Managing Director of Agilis Technology, brought Oncam's 360-degree technology to the customer, citing the camera's ability to view each scene in wider areas, the ability to cover more areas with fewer cameras, and the capacity to achieve total situational awareness, as coveted functions. "Oncam has the most outstanding technology using 360-degree cameras", said Niamnamtham. "Oncam has a technology that uses 3D dewarping. It can view images in 360-degrees in real-life proportions just as the human eye sees it. It's the only technology in world that can do this."

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Managing Director, Agilis Technology

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Mr. Sujit Chaosirikul

Chief Signalling and
Telecommunications Engineer,
State Railway of Thailand

Agilis Technology installed at least two Oncam 360-degree 12MP Evolution cameras in each station, in the areas that required wider view recording. “The cameras are more efficient because they can cover wider areas”, Chaosirikul said.

Oncam's camera technology allows users to capture high-resolution recordings of the entire fisheye view, independent of what the operator is viewing live. This means that an operator can be panning, tilting and zooming the camera within a certain area of the station, while still capturing the entire scene. The result is that investigations can be carried on as if the video were live.

Easily integrated

“Oncam's technology integrates with all types of video management systems (VMS) in the market”, said Niamnamtham. “VMS's have no problem connecting to Oncam and still maintain the highest efficiency. Oncam's image quality also offers resolutions between 5 and 12MP which is the highest resolution available in the 360-degree camera market.”

Agilis Technology has worked closely with Oncam and reports that, in terms of efficiency, the company has received positive feedback so far from system integrators and various business partners, touting Oncam's camera excellence on the market today.

Results are already in

Oncam's 360-degree cameras are available in various form factors that suit any application and environment - indoor, outdoor, concealed and even a stainless steel model - making them ideal for indoor and outdoor train station platforms and waiting areas. Footage from the

cameras have increased SRT's situational awareness in regards to emerging threats and incidents. Now that 360-degree technology can cover the full platform or train station, officials have the views they need to decrease risks, identify potential problem areas and aid police in criminal investigations.

The camera technology has already helped SRT catch criminals, and has already resulted in significant impact on aiding officials. For example, in 2015, there was a bomb explosion on Ratchaprasong Road in Bangkok that killed 20 people and injured 125. “The police came for the terrorists, who travelled through the Hua Ramphong train station,” said Chaosirikul. “We had the footage, which we delivered to the police. After that, the video surveillance cameras contributed to criminal arrests from many incidents.” Another incident included a murder in Petchaburi, and video footage led to an arrest in Nongkhai. “We are finding that the cameras provide protection, and prevent crimes and lead to the arrest of criminals,” Chaosirikul said.

SRT is also expecting significant growth, which means more and more technology will be needed to keep a careful eye on passengers, employees and assets. Chaosirikul said that once this is complete, all the main stations throughout the country will have Oncam 360-degree camera technology installed. “Once the double-track railway is completed, there will be about 60 to 70 percent of double-track railway in total in the railway network system,” Chaosirikul said. “Then, we expect the numbers of passengers to increase proportionally. Train travelling will then play a key role to drive the economy in Thailand in the future.”

