



Project reference

# Port of Bangkok

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## Customer

Port Authority of Thailand  
(Thailand)

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## System Integration

Western Integration

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## Technology

IP-based video network

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## Market

Critical Infrastructure

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## Challenge

Design and deploy a video surveillance system at the Port of Bangkok for automatically clearing containers into the port and for monitoring the port's main office

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## Solution

Siqura PTZ IP dome cameras  
Siqura fixed IP cameras

## Every second counts

Over a million twenty-foot equivalent units (TEU) of cargo go through the bustling Port of Bangkok each year. This harbor of Thailand's capital city has become a major center of commerce in the political and economic organization, the Association of Southeast Asian Nations (ASEAN). Thailand supplies these nations with items such as rice, timber, and produce. Consequently, every minute that goods spend at the Port of Bangkok is of critical importance. Thus, the Port Authority of Thailand decided to increase its productivity and efficiency while still keeping a lean operating cost by streamlining its video surveillance system with information technology.

## Upgrading and automating

For years, the containers passing through the port had to be scanned and registered manually. This included verifying the container's contents, clearing it for customs, and classifying and sorting the freight for import or export. Since these scans took nearly a minute per container, the 1.5 kilometer road leading to the port was often backed up with traffic and there were long wait times for semi-trucks and other consignment vehicles.

With increasing delays as the Port of Bangkok expanded its economic and strategic significance, the Port Authority of Thailand commissioned the Thai systems integrator, Western Integration, with the job of upgrading the existing network system and automating the container scanning process. Western Integration worked closely with Thai distributor, Patararungroj, and Siqura, the manufacturer of advanced global video surveillance solutions, to design and equip the new system.





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### Speeding things up one container at a time

Together, Western Integration, Patararungroj, and Siqura deployed a network that uses an automated content analysis program and a number recognition program to identify and catalogue the containers. Ultimately, this new system cuts the time from 50 seconds per container down to 15.

At the network's edge are hundreds of Siqura PTZ IP dome cameras. These cameras register, encode, and transmit video material to a central control room, where operators can keep an overview of the security situation and take action when necessary. Since the Siqura cameras are integrated with the intelligent analytics software, they also facilitate the automated aspects of the container identification process.

Western Integration decided to use Siqura PTZ IP dome cameras for such vital tasks for a number of reasons. Siqura cameras retain Ingress Protection and are robust enough to take on the rough conditions inherent in an industrial port. They were easy to integrate into the existing and new third-party software and devices.

Their capability to rotate 360 degrees also made the Siqura PTZ IP camera ideal for Western Integration. Moreover, Siqura is reputed for the quality and reliability of its complete solutions and service, something that Western Integration valued during the course of the project.

"We are very happy with Siqura because of the support and technical assistance rendered during the software development to integrate the Siqura cameras into our database," said the Marketing Manager of Western Integration, Mr. Pattarawat 'Pele' Tantimongkolsuk.

### Keeping communication lines open

In addition to video material, the Siqura cameras also provide an audio channel, which is being used in the Port of Bangkok for intercom communication between the gate control room and truck drivers. It is also used for making public announcements over an intercom system.

### Securing the center

Additionally, Western Integration, Patararungroj, and Siqura secured the Port of Bangkok's main office with a state-of-the-art CCTV surveillance system. The images of nearly a hundred Siqura fixed IP cameras are streamed to the central control room, ensuring that security personnel at the Port of Bangkok can effectively protect employees and property.

### Guaranteeing growth

With millions of dollars at stake, effective transport in and out of the Port of Bangkok is a must. Therefore, Western Integration, Patararungroj, and Siqura made sure that the Port Authority of Thailand received an automated and upgraded IP surveillance system both in the port as well as the main office. This cuts the time it takes to clear containers through the port by more than half. As a result, the Port of Bangkok can continue to expand and ensure that goods get where they need to go as soon as possible.

