

Axis fully safeguards Port Dalian.

Port Dalian deploys HDTV network surveillance system.

**Organization:**

Dalian Port (PDA) Co., Ltd.

Location:

Changxing Island, Dalian, China

Industry segment:

Transportation

Application:

Safety and security

Mission

Port Dalian is the largest port company based in Dalian City, Liaoning Province, China, which has a history of 100 years. Port Dalian is located in the center of Northeast Asia economic circle, featuring great water breadth and depth with no freezing. In fact, it is the nearest outlet of Northeast China and eastern Inner Mongolia leading to the outside world. Currently in Port Dalian, there are more than 80 modern professional berths for containers, crude oil, oil products, bulk mineral, grains, coal, roll-on / roll-off shipping and so forth, as well as more than 50 berths providing the capabilities of over 10,000 tons. To put it simply, no matter how big the ships are in the world, Port Dalian provides berths big enough for them. It also maintains a 450,000 ton crude oil terminal, which is the largest one in China, as well as the largest oil tank group among the domestic ports, which provides an annual capacity of up to 80,000,000 tons. It is the most important base for storage and distribution of oil products and liquid chemicals in Northeast China.

Port Dalian's container berth provides the ability to park 14,100 TEU container ships from over 90 foreign and domestic container lines, which form a network covering more than 100 ports home and abroad. As the largest container hub in Northeast China, its container throughput for foreign trade accounts for 97% of the total of Northeast China's ports. Port Dalian also maintains dedicated ore terminals of the best water depth conditions and the highest utilization efficiencies, providing the ability to deal with 400,000 ton bulk mineral ships.

In order to improve the management efficiencies and ensure safe production, Port Dalian needed to deploy a new network video surveillance system. Taking into consideration the various machines and equipment, personnel from both inside and outside, valuable cargos, and security uncertainties in the port, the front-end cameras were expected to efficiently and steadily provide HDTV images, enable around-the-clock surveillance, and adapt to the high light and low temperature environments.

Solution

Catering to these needs, Axis Communications, together with its partners, designed a network video surveillance system for Port Dalian, with 30 HDTV 720p AXIS P5534-E Dome Network Cameras, providing the ability to record live scenes in the port around the clock. The outdoor-ready AXIS P5534-E provides HDTV 720p in compliance with SMPTE 296M standard of 1280 x 720 pixel resolution, full frame rate, HDTV quality and a 16:9 format.

The day and night camera can deliver multiple H.264 and Motion JPEG streams simultaneously. It also gives 18x optical and 12x digital zoom with autofocus. Due to its HDTV resolution, the camera's 18x zoom provides not only a level of detail that is comparable to a 36x-zoom camera, but also the extra advantage of a wider, 16:9 field of view, thus enabling surveillance of a large area and great details when zooming in.

All of the Axis cameras are connected to Port Dalian's existing WAN via network switches. With the background management system deployed in the port surveillance center, the network video surveillance system is leveraged for centralized management over the digital video signals of the 30 front-end network cameras, as well as the back-end storage, video forwarding and on-the-wall devices, thus enabling 24h full frame storage and live video on the wall of HDTV 720p digital video.

The whole system provides the ability to work with the existing surveillance system, while addressing the various surveillance and management needs with seven modules, including electronic map, live monitoring, media service, device detection and alarm interlocking.

Result

The new system incorporates many HDTV 720p network cameras, which offer outstanding image quality, considerably improving the efficiency of visual management in the port. AXIS P5534-E Network Cameras are powered with High Power over Ethernet, which makes installation easy since only one cable is needed for carrying power, video and PTZ commands. As there is no need for separate control and power cables, the wiring cost is saved by approximate 70%.

Port Dalian's IP-based surveillance project fully meets the customer's needs, while providing a cost-effective security solution, which is highly appreciated by the customer.

