LENEL·S2

case study

LenelS2 Secures Copenhagen Energy

Flexible, scalable and open platform enables comprehensive security

Summary

Organization
Copenhagen Energy

Location
Copenhagen, Denmark

Industry
Energy

Systems Integrator
Petersen-Bach A/S

Challenge

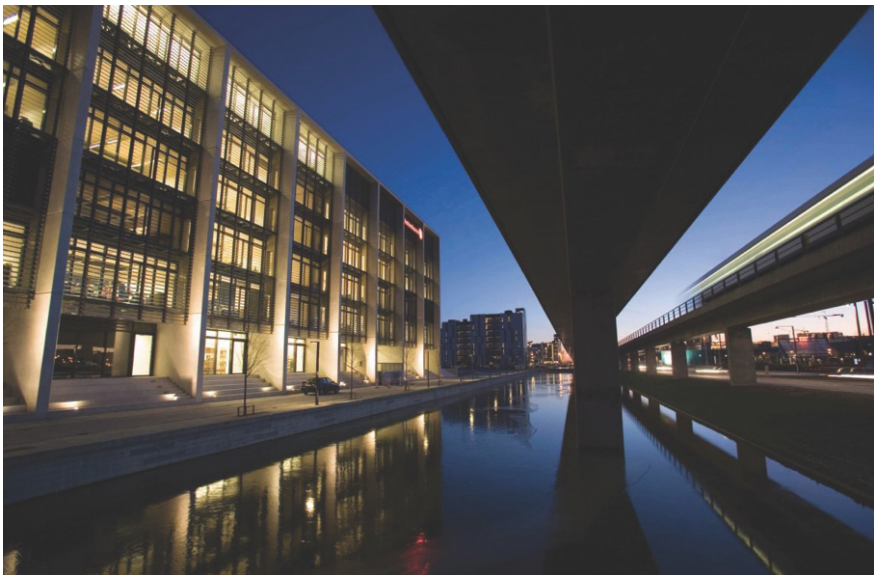
- Monitor threats to critical infrastructure
- Extend security system to remote locations

Solution

- Deployed comprehensive access control and video surveillance
- Integrated multiple third-party systems

Results

- Secured utilities for city inhabitants
- Streamlined future system expansion



Challenge

Owned by the City of Copenhagen, Copenhagen Energy has a total of 700 employees in the fields of water supply, district heating, gas supply, cooling and drainage. About a million city inhabitants depend on the company for utilities. Copenhagen Energy has seven waterworks in Zealand, which together supply approximately 150 million liters of pure drinking water from more than 500 abstraction wells and 400 observation wells via 250 kilometers of transmission pipes.

Increased threats to critical infrastructure demand a constant focus on possibilities for improving security. Because many of the wells are in out-of-the-way places such as fields and forests, it is difficult to enable comprehensive access control and carry out surveillance. To address these concerns, Copenhagen Energy needed an open, network-based and user-friendly security platform to allow employees to easily conduct inspections and repairs while supporting constant updates within an evolving landscape of challenges.

Solution

Copenhagen Energy chose the OnGuard® system for its range of applications and programming flexibility. Today, the extensive and highly scalable security system covers hundreds of sites. Danish systems integrator, Petersen-Bach A/S, provides OnGuard programming and system maintenance for Copenhagen Energy.

The central platform is processed by two powerful IBM servers, which use automatic failover to ensure redundant and stable operation of the system. Linked to the platform are 11 surveillance PCs and 115 intelligent system controllers, which handle Copenhagen Energy's more than 300 card readers, 7,500 I/O points and approximately 1,500 mobile GPRS connections that make up most of the security system.

The OnGuard system is used for access control at pumping stations, waterworks, control buildings and heating tunnels via HID® multiCLASS® card readers. In select locations, the system reads access cards via NEDAP Transit long-distance readers and automatically opens the gate when an authorized employee approaches. Video surveillance cameras monitor water wells and company facilities. Cameras are controlled and recorded by a total of seven servers using OnGuard video surveillance software.

For well inspections, employees use their company ID cards to release an electronically monitored and administered system key for disconnecting alarms from the well cover. After the inspection, the alarm system is reconnected via a card reader with a keypad.

Data is transmitted from each well cover via GPRS over the mobile network in a telemetrically secure network to a central server. Copenhagen Energy uses OnGuard's open DataConduIT API to bring alarms to the security system in real-time from the server that receives data from the wells. In the event of an unauthorized intrusion, the OnGuard system displays the alarm, enabling an immediate response.

Results

The supply of water, heating, cooling and drainage for more than a million citizens in Copenhagen is now more secure due to the comprehensive OnGuard security system at Copenhagen Energy.

The open OnGuard security platform makes it easy to implement future integrations and enhancements to the system. Plans include further automation of the security system by integrating it with Copenhagen Energy's human resources database, as well as use of employees' ordinary ID cards to control logins to Copenhagen Energy's PCs.

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