# Heating plant Kosice increased safety via IP CCTV Bosch



# **Vertical segment:**

Industry - Heating plant

# **End consumer:**

Teplarna Kosice a.s., Teplarenska 3, Kosice, Slovakia

Teplarna Kosice a.s. belongs amongst the largest producers and distributors of heat in the form of hot water and steam in the centralized heat supply system in Slovakia. The company assumes its place on the thermal energy market in the cities of Presov and Kosice. The plant supplies as much as 85% of all households, company and public buildings. Out of the total consumption of 4100 TJ / year in Kosice and Presov, 65% make up households, 30% the public sector and 5% industrial buildings.

#### **Business plan:**

The safety department of the plant based its requirements on the proposal and realization of a security surveillance system for headquarters and the production plant. Fundamental requirement was the perimetric protection of an approx. 3 km long fenced complex incl. all employee and motor vehicle entrances, monitoring of significant technological units and to keep a history of the system status.

# **Solution:**

The intention of the proposed solution was to decentrally provide required pictures from cameras and recordings to security and technological operators according to allocated rights. The system was built on the basis of the Bosch Video Management System (BVMS) in order to secure a reliable solution according to the specification with the option of expansion and reverse compatibility.

BVMS is a unique tool for managing digital pictures, audio and data acquired from analog and IP camera systems. The protection of the plant perimeter and employee and motor vehicle entrance gate is secured by 51 CH NWC 0455/10P cameras and 3 rotating AutoDome VG4 cameras. Information regarding unauthorized access and monitoring the route of people within defined areas is identified using the special inteligent motion video detection IVMD 1.0 software. IVMD operates as a "virtual operator" - analyzes shots taken by cameras and automatically assesses movement, informs of unusual events and possible unauthorized accesses. 26 NWC 0455/10P cameras monitor technological operation of the plant.

BVMS works on a client - server basis. The heating plant Kosice uses 3 client stations and 4 NVR servers with a total capacity of 8 TB. The Network Video Recorder (NVR) software ensures video, audio and data storage and playing. Redundance is



Heating plant Kosice, Slovakia

realized using the so called "Failover" NVR server which is assigned as a backup server. Complete system monitoring runs on 3 client stations. Each station displays events on four 19" monitors. One client station is determined for security guards who provide 24 h security over the plant perimeter. The "workflow" function is used in case of an emergency event, meaning the operator must add a comment with specific descriptions to each reported event.

# **Conclusion:**

Upon putting the system into operation the customer's reaction to system functionality was positive. He emphasized the reliable motion detection on each 60 m perimeter section. By installing the system, he obtained an overview of technological junctions and primarily the number and nature of emergencies within the perimeter zone. The IVDM function informs security guards of any events within the fenced complex enabling them to precisely monitor the reason for an emergency, the security guards' reaction and thier physical movement.

# **Installed by**

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