

Axis cameras in the service of the forest.

Axis cameras enable early identification of fire hazards in the Forest District Czarna Białostocka.

**Organization:**

Forest District Czarna Białostocka

Location:

Białystok, Poland

Industry segment:

Government

Application:

Fire prevention

Axis partner:

DDTRONIK

Mission

Starting this year, a fire surveillance system supported by DDTRONIK wide range PTZ cameras based upon the latest AXIS Q1765 Network Camera has been in use in Forest District Czarna Białostocka in the Podlaskie Province. The aim is to detect fire outbreaks as early as possible. The system is made of two cameras installed at a distance of 30 and 45 kilometers from the forest district office and controlled from a single control room via a GSM interface.

In addition to overvoltage protection and anti-theft protection, the system has photovoltaic panels to draw energy from throughout the whole year.

Solution

Image quality has a significant role in forest monitoring as even the slightest detail can make a difference in its analysis. Embedded with specialist software, Axis cameras offer high resolution and low compression. They can cover an area with a radius of 20 kilometers and be additionally equipped with a smoke detection function.

Result

Typically, optical fibres or dedicated radio links are employed to connect to the network in poorly accessible areas such as forests. In this case, however, neither was suitable, and so a GSM interface was used instead. Thanks to advanced technology and tailored IT solutions the video coming to the control room always exhibits the highest image quality.

“The quality of Axis cameras is not the only thing I am confident about. The implementation of a forest monitoring system would not have been possible if not for the skillful IT specialists who adjusted the software to high requirements in respect of resolution and image compression as well as transmission through a GSM interface.”

Dariusz Dowgiert, owner of DDTronik.

In the service of the forest

Starting this year, a fire surveillance system supported by wide range PTZ cameras has been in use in Forest District Czarna Białostocka in the Podlaskie Province. The system is made of two DK3HD3 PTZ cameras based upon the latest AXIS Q1765 and is one of nearly 100 such systems in Poland and one of fifteen systems supported by Axis cameras. Here, the forests are being watched by two cameras.

The camera towers are located in Kuźnica and Nowy Dwór at a distance of 30 and 45 km from the control room. The aim of installing a fire surveillance system in Forest District Czarna Białostocka was to detect the first signs of fire outbreaks. The system was implemented by DDTronik, Axis' partner since the company was established 11 years ago.

The nature of the forest

It is crucial in forest fire protection to identify one centimetre of smoke on a 50-inch monitor. Therefore, smooth movement of the pan/tilt head is required in addition to high resolution and low compression. Any sharp movement could lead to distortion that in turn might result in overlooking fire. The additional function of the cameras, i.e. smoke detection, also plays a role. The products supplied by Axis has met all the requirements imposed by the forest district.

Software

Typically, surveillance systems covering large areas are embedded with either fibre optics or dedicated radio links that enable high quality video and control transmission. At the moment, however, neither would be economical in Forest District Czarna Białostocka.

Hence the choice of a GSM interface. Yet, in order to get the perfect image quality and customise the camera functionalities to the individual needs of a given installation it was necessary to use special software.

Based upon the experience of DDTronik, the YagiPanel software was built for the purpose of long-range surveillance. The software can integrate with maps of the local area and define the coordinates of fire.

By combining high quality AXIS Q1765 cameras constituting open platforms and the specialist software a unique solution was created matching the needs of forest fire surveillance systems.

