# Axis network cameras in Kaliningrad: the core of the "safe region".

ISS situational awareness analytics and Axis cameras enhance the "safe city" project in Kaliningrad.



**Organization:**
Kaliningrad regional government

**Location:**
Kaliningrad, Russia

**Industry segment:**
City surveillance

**Application:**
Public safety, traffic management

**Axis partners:**
ISS, "Wester" group

## Mission

The introduction of the "safe city" hardware and software system started at the end of 2014 in Kaliningrad region. This system is a federal project aimed at increasing the citizen's safety and optimizing the cooperation of all the supervising and emergency response services. The centralized video surveillance system forms the hardware backbone: IP cameras with analytic functionality are connected to the fiber-optic network and transfer the information to the single monitoring center. SecurOS software is developed in Russia by ISS.

## Solution

AXIS P1365 Network Cameras are included in the project to meet the requirements of the situational awareness analytics. Apart from full integration with SecurOS these cameras have additional functionality as Lightfinder and WDR technologies. Initially more than 20 Axis network cameras were installed in Kaliningrad. This number is constantly growing since the system develops and extends to other cities.

## Result

Today, cameras installed at the public places, squares, intersections and highways automatically analyze the situation and if necessary send the signal to the monitoring center and display the image on the video wall. Meanwhile, the incident response speed increases, the impact of the "human factor" reduces and each event is recorded to the archive. The project was highly evaluated by the Kaliningrad region administration, heads of the regional representative offices of the Ministry of Internal Affairs and the Federal Security Service and recommended to be deployed on the whole territory of the region.

**AXIS COMMUNICATIONS**

"We use Axis network cameras for the "Safe city" project in Kaliningrad region. Without these cameras the sub-system which automates the work of the operators would be simply impossible. The wide range of the challenges demands continuous operation in various conditions and precise tuning. Third party cameras were also considered as a "filling" for AutoCam-IP equipment, however Axis cameras showed better results in terms of image quality and integration with SecurOS software."

Oliferchuk A. S., Director of the "SAFE CITY" State Public Institution of Kaliningrad region.

## Project background

The "safe city" pilot project in Kaliningrad was deployed from scratch within only two months and put into commercial operation at the end of December 2014. Along with the traditional video surveillance capabilities, it also features the analytical sub-system used for automatic incident record (mass gatherings, crossing of the restricted area frontiers, etc.), face and license plate recognition capability allowing to search for people and hijacked cars in the databases of the Ministry of Internal Affairs and the Federal Security Service. More than this, an image is captured or a video is recorded in case of violation from the traffic safety rules (driving in the wrong direction, driving in the oncoming traffic lane or failure to yield to a pedestrian on a zebra crosswalk, overspeeding, etc.).

Apart from providing the fast response to the incidents the information transferred to the monitoring center is also available to employees of the Ministry of Internal Affairs, EMERCOM, government authorities and municipal services. After the pilot project was launched the Kaliningrad region governor announced that the system capacities will be expanded and it will be deployed in other communities of the region such as Gusev, Chernyakhovsk, Sovetsk, Svetlogorsk, etc. and the appropriate installation works are already in progress. In particular, such a wide deployment is associated with the safety during the 2018 FIFA World Cup. Eventually, the project turned from the "safe city" into "safe region" and by the end of 2017 the number of the cameras involved will reach several hundreds.

## Solution features

The "safe city" video analysis sub-system includes the dedicated equipment SecurOS IVS AutoCam-IP based on AXIS P1365 Network Cameras. These cameras are designed for 24/7 city video surveillance and feature P-Iris lens, digital PTZ control, remote back focus and sound detector. They support the HDTV 1080p image with the frame rate 50/60 fps in H.264 and Motion JPEG formats from several view angles. The cameras also support Power over Ethernet that enables quick installation even at the sites where the power cable is out of reach.

The analytical module of the Axis cameras with such capabilities as cross line or motion detection assists in detecting and investigating the incidents. Technologies such as WDR – Forensic Capture and Lightfinder, guarantee the highly detailed image and perfect color rendering even in challenging light conditions. These technologies are relevant for face recognition using SecurOS Face software and car license plate recognition using SecurOS Auto software. The obtained information is further compared with the databases of the Federal Security Service and the State Traffic Safety Inspectorate imported into the system. Axis' Zipstream technology is used to save the bandwidth and manage the storage issues, which is particularly important with continuous "heavy" traffic from a large number of devices.







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