

Bialystok Streamlines its Municipal Traffic Monitoring System with VIVOTEK Fisheye Network Cameras

Background: Surveillance Enhancement for Traffic Surges

Bialystok, a beautiful historic city of 300,000 in the northeast of Poland, is one of the nation's major population centers. Devastated in World War II and languishing for a long period afterward, the city has seen a renaissance in recent years, with restoration of its beautiful architecture and modernization of infrastructure as the Polish economy has boomed. One particular change that has come

upon this serene

city with unexpected rapidity is the increase in car ownership, which has more than tripled in Poland since 2005. Over the last decade, the growing need for an up-to-date, comprehensive traffic monitoring system has

become increasingly apparent.



Vertical: Traffic monitoring

Country: Poland/ Bialystok

Solutions: [FE8174V](#)

Software: Siemens

Total Quantity: 130

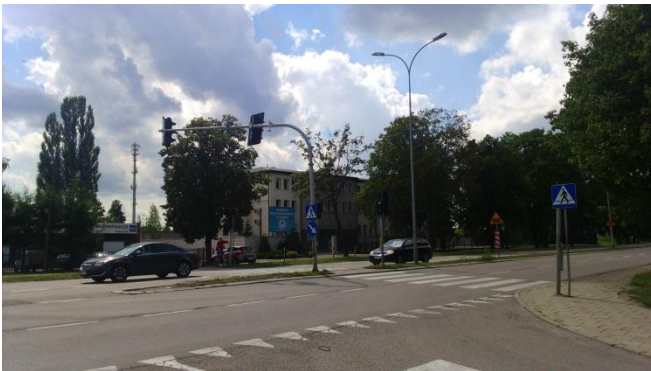
Partners: [SUMA SOLUTIONS SP. Z O.O.](#)

The Challenge: Comprehensively Upgrading City Surveillance, Without Disturbing the Peace

Cameras were the most costly item within the traditional traffic surveillance system originally deployed in Bialystok. To capture as many angles as possible, large numbers of cameras were required, often several at each intersection. As well as creating an eyesore, this also meant that the cost of linking and synchronizing the array of cameras to the central surveillance system was exorbitant. To avoid impacting traffic, which is heavy during the daylight hours, installation and construction work was usually carried out at night. The restricted hours for installation caused long delays in camera setups. Worse, the system itself no longer met the needs of the rapidly

developing city. Despite the large numbers of cameras, the field of view of individual cameras was too narrow and when accidents happened it was difficult to try to piece together footage from several cameras in an attempt to reconstruct the incident. Often, there was no way to determine from the footage just who was at fault. A better solution was needed.

The Solution: Seamless Collaboration to Seamless Implementation

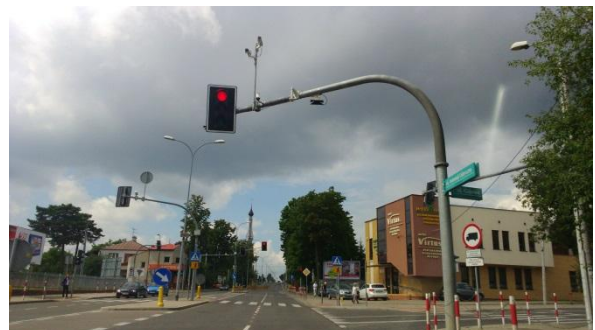


Zarząd Dróg Miejskich (ZDM), the municipal unit responsible for the road system in Białystok needed to revamp, simplify, and upgrade their inefficient traffic camera system, so they worked with systems software manager Siemens and engaged VIVOTEK's local distributor Suma Solutions to come up with an answer that would meet

their needs. Siemens developed the system software around technology provided by VIVOTEK, the world leader in IP surveillance solutions, offers dedicated traffic surveillance and management solutions, and has recently released its remarkable [FE8174V](#) H.264 5-megapixel fisheye network camera.

The Camera: High-Quality Surveillance Effective All Year Round

The FE8174V is VIVOTEK's fisheye network camera. This vandal-proof, WDR-enhanced, day/night camera features a detailed 5-megapixel resolution sensor with superior image quality. Its fisheye lens captures a 180° panoramic view when wall-mounted, and a stunning 360° surround view with no blind spots when mounted overhead. With its choice of display layouts—surround view, panoramic view, and regional view—it is the perfect solution for those who need coverage of wide, open areas as well as



a high degree of flexibility. With the advanced image processing capabilities, the hemispherical images captured on camera can be automatically retooled to conventional projection specifications for easy viewing. As the camera's primary application is outdoors and demands

reliability in all conditions, an weather-proof IP66-rated and vandal-proof IK10-rated housing keeps the camera body clear of rain and dust and maintains functionality in all types of weather. The VIVOTEK FE8174V features a removable IR-cut filter, which is unquestionably the best choice for those who need a hardy, all-weather, 24/7 system with a full range of coverage.

The Outcome: Enhanced Resolution Translates into Better Traffic Safety

ZDM installed 130 VIVOTEK FE8174V cameras at intersections throughout Bialystok. Now, with



far fewer cameras, traffic controllers can get a clear, sharp overview of the whole field without any blind spots. A single VIVOTEK FE8174V provides the coverage of four outdoor bullet cameras in one image, and has resulted in cost savings at the same time as providing more complete coverage. Fewer cameras has also meant a decrease in costs associated with the backend management platform, network communications equipment, and storage equipment; it has also protected the aesthetic properties of the city by decluttering the skyline. Further, VIVOTEK's fisheye camera dewarping capabilities allow monitors to adopt different presentation modes. Now, Management Center operators can easily monitor and verify traffic

incidents and use the image recognition software to increase traffic control efficiency. The city of Bialystok has finally achieved a traffic management and surveillance system that can keep pace with its rapid growth while remaining in harmony with the local culture and architecture.