

SafeCity Moscow

About SafeCity

Today's municipal security goes far beyond the monitoring of selected sites. Modern integrated security systems must not only record and stream video but also analyze it intelligently, monitor all types of sensors, and provide automatic responses to problems.

SafeCity combines hardware, software and operational measures to provide video security, technical safety, and manage utilities and other distributed services. SafeCity is a multifunctional expandable solution built on an integrated modular distributed platform – Axxon Intellect Enterprise – with embedded intelligent data analysis.

By creating a unified digital control and monitoring space for the city, SafeCity is an effective, scalable, future-proof solution for a modern metropolis.

Key Challenges

High crime rates, as well as a hostage taking in the Dubrovka Theater Center, threatened Moscow. Two-thirds of its residents felt unsafe in the face of crime. As a result, the city launched a program called Safety for Moscow and Muscovites.

A city-wide electronic monitoring and response system was a critical part of this program, with specific requirements:

1. **Comprehensiveness.** SafeCity had to work with and integrate any brand of equipment.
2. **Centralized and remote control.** Local and remote administration was required to make implementation standardized and simpler.
3. **Scalable.** SafeCity had to be infinitely scalable while maintaining fine-grained control.
4. **Integrated.** It had to integrate sensors, tasks, and units of different types.
5. **Reliable and stable.** Most importantly, SafeCity had to be functional around the clock.

A single proprietary product could not match the needs of a city the size of Moscow. The SafeCity project would provide an integrated, hybrid solution to city-sized security.

Implementation

In March 2002, Planir Holdings Group worked on the first stage in the SafeCity project in the Tverskoy district, using Axxon Intellect Enterprise. Meanwhile, several other districts launched similar projects based on alternative platforms, but it was quickly apparent that the other systems were much less powerful and functional. As a result, Axxon Intellect Enterprise was selected as the platform upon which Moscow's citywide security system would be built.

The initial SafeCity plan was to cover Moscow with a distributed video surveillance network. Additional considerations prompted a more comprehensive, multilevel system: SafeCity would protect sites including group dwellings, life support systems, schools, mass circulation areas, airports and railway stations, trains and subways, transportation and motorways, and television towers.

Nowadays the SafeCity implementation included over 120,000 CCTV cameras in Moscow, controlling over 80,000 doorways and mass circulation areas almost all over the city. These sites are now covered by a single distributed scalable system controlled from several centers using the Axon Intellect Enterprise integrated security platform.

Vandal-resistant cameras monitor public areas while access control prevents unauthorized entry, and flood, fire, and smoke sensors alert emergency personnel to problems. Meanwhile, water, gas, and electricity consumption is monitored to provide accurate billing and planning, and prevent leakage, overloads, and short circuits.

Panic buttons and emergency hotlines provide quick access to the police in areas of mass circulation, while facial recognition enables identification and tracking of criminal suspects at airports and railway stations.

Train and subway safety is ensured through video surveillance, as well as a permanent online link between all drivers and transport police officers. All stations and cars are equipped with firefighting systems such as automatic fog scanners and ventilation units.

PTZ cameras on motorways assist the police in resolving accident disputes, and surveillance of parking and business centers reduces theft. If a vehicle is stolen, video license plate recognition at key points in the city enables police to find it.

Results

According to the Main Internal Affairs Directorate of Moscow, the SafeCity implementation has caused a dramatic reduction in burglaries and vandalism – drops of 12.5% and 33% respectively in the first six months of operation alone.

The police headquarters also noted that video surveillance had a critical role to play: “The presence of CCTV cameras makes people more disciplined, and provides an excellent deterrent to crime.”

Implementation uncovered other unforeseen benefits. Video surveillance now enables the government to monitor and control the quality of utility service providers’ work. Building control systems allow for tight control over personnel activities, leading to more accurate accounting and technical supervision. And the number of actual residents can be calculated from utility resource usage – useful for checking migration law and tax compliance.

SafeCity has been crowned a success by the professional community, as well. At the National Security International contest during the InterPolyTech 2004 International Exhibition, Axon was awarded a medal and a ‘Guaranteed Quality and Safety’ nomination diploma “for the development of the SafeCity digital integrated security system as the basis of the centralized citywide video monitoring solution in Moscow.”