CENTRAL LEVEL
STABILIZER® SW PLATFORM

Stabilizer SW Platform is a comprehensive solution aimed at acquisition, processing and storage of input data from different peripheral traffic enforcement tools with further transfer of each type of traffic violations data packages to the Center to complete fines registration and for other applications.

The required Platform functionality can be customized according to the project tasks.

PERIPHERAL TOOLS WITH ANPR FUNCTION

STRELKA PLUS

STRELKA PLUS is an automatic enforcement solution for stationary and mobile applications. Due to a wide range of detected violations it can be applied in cities and on highways to perform traffic enforcement and traffic counting functions in any weather and lighting conditions. It is suitable for roads of up to 5 lanes.

STRELKA 360

STRELKA 360 is a video-based innovative multitasking solution with 360 view for mobile and stationary application to perform monitoring, control and enforcement functions especially in an urban environment. The system automatically transfers all data concerning each specific detected vehicle to the center for further decision-making depending on the status of violation. The mobile version can be easily installed at any vehicle regardless of the brand.
Can be installed on various OS (cross-platform solution)

Unlimited number of users by means of creating a new account with user rights distribution

Multifunctional user WEB-interface based on Open Street Map

Local data storage in case of loss of communication with the Traffic Ticketing Management System

Combination of collected data from different enforcement units into a single data package of violation to create a strong documentary evidence
STABILIZER: FEATURES

Communication with Other Integrated Systems and DB. Data conversion into various formats and data transfer to other systems, e.g. Traffic Ticketing Management System, using available communication paths. Data exchange with external databases – Drivers DB, Vehicles DB and etc.

Peripheral Systems Integration on Top Level. The integration allows to combine unlimited number of peripheral enforcement systems into a single network to perform centralized management and control functions in the Center.

Peripheral System Remote Configuration. Types of violations setting and virtual control zones configuration from a remote working station for every individual system.

Automatic and Manual Processing of a Wide Range of Violations. The data is processed automatically by the SW and in addition manually by operator in some cases to avoid possible mistake.

Special Police Functions (Optionally). Stolen vehicle identification by LP, vehicle search and vehicle tracking by LP and other specific functions.

Processing of a wide range of violations automatically and manually.

Peripheral System Operation Analysis. The analysis of the system operation efficiency is performed based on various criteria defined by the user or owner of the enforcement system.

Management of traffic enforcement units with possible outlaying of control zones and detected violations.

Peripheral System Detailed Reporting. Working status, diagnostic status for each of peripheral system component, precise map location and other information related to the system unit. On-line notifications and statistic reporting are available.

Enforcement Data Storage, Analysis and Visualization. LP snap-shot, vehicle snap-shot and violation video record are available for each detected violation. The data is available in on-line mode and from the storage.
STABILIZER: USER WEB INTERFACE

Stabilizer software has a user-friendly and functional web interface. It is a multiuse tool that allows online monitoring, processing and diagnostic functions.

The system is safely protected from unauthorized access with distribution of user access rights.

The web interface enables:

- Processing of data from traffic enforcement systems in automatic, semi-automatic and manual modes
- Individual configuration and parameters setting for peripheral system
- Traffic situation visualization in the control zone of the chosen camera
- Diagnostic information for every system unit
- Generation of statistics, reports, logs, back-up (table graphic form in CSV and XML)
- User rights management

Connection of unlimited number of users without additional licenses, keys, etc. just by creating a new user account
STRELKA PLUS
FOR STATIONARY AND MOBILE APPLICATION

The system provides full information on any type of violations including sequence of high-resolution pictures of the detected vehicle and recognized LP. The data validity at the stage of transmission and processing is confirmed with a digital signature.

The mechanism of RSA-encryption guarantees unauthorized data access protection during transmission to back-office through open channels. The system contains mechanisms of temporary data storage in its own database and guarantees data security in case of disconnection with the back-office.

The system has HW/SW protection against unauthorized intrusion, removal or network connection which automatically sends a warning by SMS or e-mail to operator.
STRELKA PLUS: SPEED ENFORCEMENT

Speed Enforcement in Fixed Locations: the system provides speed detection for approaching or moving away vehicles in a traffic flow in the entire control zone. The innovative tracing algorithm is based on detection of each vehicle along its path regardless trajectory. The system continuously (15 times per second) measures the speed within the control zone.

Point-to-Point Average Speed Enforcement: the LP for each passing vehicle is registered by upstream and downstream cameras on the road, time-stamped, encrypted and sent to the central SW. The central level SW has been configured with the distance between the cameras and the speed threshold to calculate the average speed of the vehicle using the time between the two detection points.
STRELKA PLUS:
INTERURBAN TYPICAL APPLICATION

1. OVERTAKING
2. WRONG WAY DRIVING, SOLID LINE CROSSING
3. HARD SHOULDER DRIVING
4. VEHICLE ON THE WANTED LIST
5. POINT-TO-POINT SPEED ENFORCEMENT
STRELKA PLUS:
URBAN TYPICAL APPLICATION

1. Red light running or stop line crossing
2. Driving in areas not fit for vehicles (hard shoulder, sidewalks, etc.)
3. No parking/ no stopping sign violation
4. Bus lane violation
5. Inaccurate or hazardous lane changing
6. Wrong way driving, solid line crossing
7. Speeding
8. Overweight vehicle/ group of vehicles detected to enter a restricted area
9. Entering a busy intersection, obstructing the vehicles driving edgeways
10. Failure to stop before pedestrian crossing
11. Overtaking in restricted area
12. Road marking and sign violation
13. Violation of railway crossing
14. Unauthorized vehicle in a restricted area
15. Processing of other violations depending on requirements

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STRELKA 360
STATIONARY VERSION

APPLICATION: KEY FOCUS ON SPECIFIC URBAN INFRASTRUCTURES

- Public transport hubs
- Places with frequent parking violations
- Places with frequent wrong driver behavior
- Pay parking zones
- Tourist zones with buses legal parking only

The use of STRELKA 360 solution is an efficient measure to increase overall traffic situation and MOBILITY in the city

THE KEY TO SUCCESS IS TO PROVIDE TRAFFIC ENFORCEMENT AT MOST SPECIFIC LOCATIONS

ALLOWS TO PERFORM SIMULTANEOUSLY THE FOLLOWING TASKS BY ONE CAMERA

- Parking rules enforcement: wrong parking, unpaid parking, double parking
- Vehicle movement control: reckless driving, double solid line crossing for U-turn or overtaking, etc.
- Designated traffic lane enforcement: bus lanes, sidewalk, hard shoulder, etc.
- Pedestrian priority enforcement on pedestrian crossing
- Traffic road signs status monitoring: lop-sided, damaged signs or lack of a required sign in place
- Special functions e.g. wanted vehicles recognition

THE SYSTEM CAN BE INSTALLED ON ANY GANTRY OR POLE

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STRELKA 360
MOBILE VERSION

APPLICATION

- Traffic rules enforcement
- Parking rules enforcement
- Road sign control and monitoring (lopsided, damaged signs or lack of a required sign)
- Special investigative techniques (car theft, search, etc.)

FEATURES

- Fully automated and autonomous operation
- High-accuracy coordinates measuring of object (road signs, vehicles, etc.): ±3m
- Remote operational control from the center: route control, movement control, working status monitoring and components diagnostics without driver assistance
- Complete mapping with unlimited patrol zones
- Up to 20 cameras can be integrated into one vehicle (360° view)
- Easy to install and easy to operate – no additional training for drivers is required
OUR PRACTICAL EXPERIENCE

MOSCOW

FOR MOSCOW TRAFFIC CONTROL CENTER

CENTRAL SW FOR WORKING STATUS MONITORING AND CONTROL FUNCTIONS

CENTRAL SW FOR TRAFFIC VIOLATION PROCESSING

OVER 2000 FIXED AND OVER 50 MOBILE STRELKA TRAFFIC ENFORCEMENT SYSTEMS

THERE ARE OVER 30 MOBILE AND OVER 200 FIXED STRELKA 360 PARKING ENFORCEMENT SYSTEMS ARE IN OPERATION

2013 - TOMTOM’S TRAFFIC INDEX RANKS MOSCOW AS THE WORST OF 169 CITIES AROUND THE WORLD FOR TRAFFIC JAMS

2016 – MOSCOW HAS BEEN AWARDED THE TRANSPORT ACHIEVEMENT AWARD FOR ITS EXEMPLARY APPROACH TO IMPROVING TRAFFIC CONDITIONS.

2017 – MOSCOW HAS BEEN CONFERRED THE SPECIAL PRIZE FOR ACHIEVEMENTS IN URBAN TRANSPORT AND THE DEVELOPMENT OF ITS INFRASTRUCTURE OVER THE PAST SIX YEARS

VIOLATIONS:

SPEEDING
BUS LANE
U-TURN
PARKING
RED LIGHT
HARD SHOULDER
SOLID LINE CROSSING

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THANK YOU FOR YOUR ATTENTION!