





## OF EXPERIENCE IN CCTV SURVEILLANCE

## LOYAL CUSTOMERS ALL OVER THE GLOBE

## COMPOUND ANNUAL GROWTH RATE

## COUNTRIES OF TRASSIR INSTALLATIONS

## TOP-10 COMPANIES IN EMEA

RATED AMONG THE  
GLOBAL CCTV COMPANIES

# TOP-30



# TRASSIR: WIDE RANGE OF SOLUTIONS FOR VARIOUS INDUSTRIES

**BANKING**



**WAREHOUSES**



**HORECA**



**EDUCATIONAL  
INSTITUTIONS**



**RETAIL**



**MANUFACTURING  
ENTERPRISES**





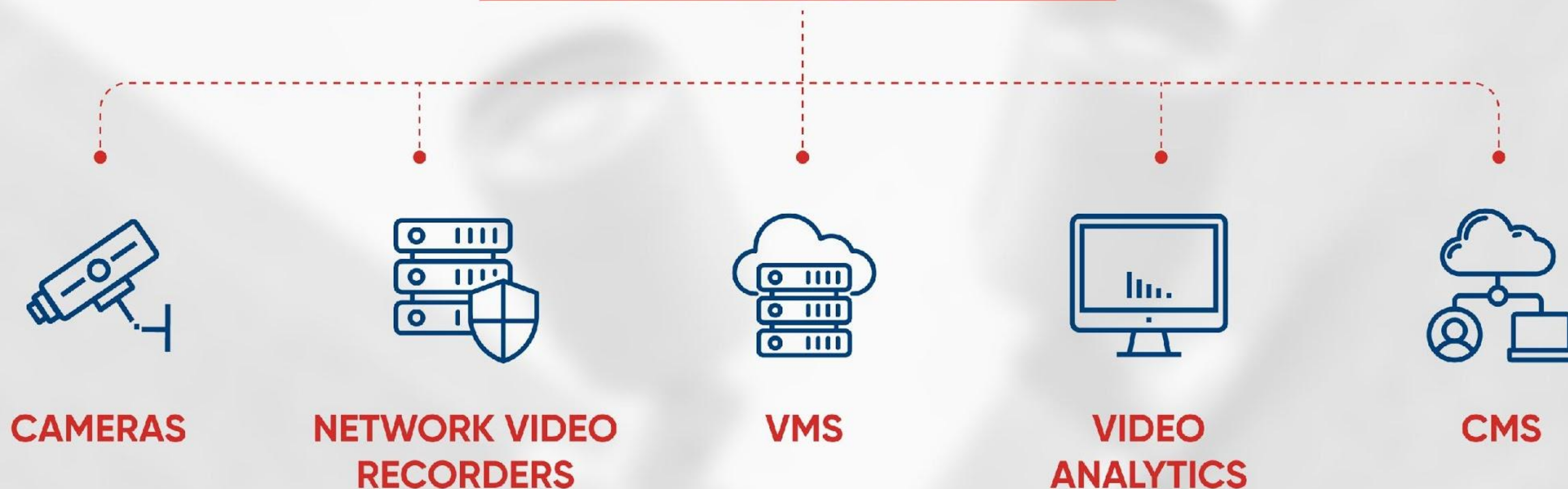
# OUR CLIENTS AND PARTNERS ACROSS THE GLOBE





# TRASSIR<sup>®</sup>

## CCTV ECOSYSTEM





# CERTIFICATION



The TRASSIR equipment meets the EU safety and other applicable requirements (CE certification).

- ✓ Electromagnetic compatibility (EMC)
- ✓ Low Voltage Directive (LVD)
- ✓ RoHS Directive
- ✓ Radio Equipment Directive (RED)



Additional certificates can be obtained upon the specific customer's case or the partners' request.



## A COMPATIBLE SOLUTION CUSTOMIZATION

Supports 99,9% of IP-Cameras can be connected by:

- Native integration (manufacturer protocol)
- ONVIF
- RTSP connectivity

## CUSTOMIZED

Addresses unique challenges by using special rules and Python scripts

## PROJECT SUPPORT

TRASSIR professionals build complete solutions for your projects

## PRE-SALE DEMO

Our engineers can demonstrate system functions remotely

## TECHNICAL SUPPORT

Agile customer service and direct response to complaints

## ADVERTISING SUPPORT

Printed and electronic promotional materials are available to the partners



# TRASSIR: THE RIGHT CHOICE



# TRASSIR: BASIC ANALYTICS



TRASSIR MULTISEARCH



TRASSIR HEATMAPS



TRASSIR ACTIVESEARCH



TRASSIR EVENTSEARCH



TRASSIR CLIENT



TRASSIR SABOTAGE DETECTOR



TRASSIR MOBILE CLIENT



TRASSIR FIRE & SMOKE



TRASSIR SOUND DETECTOR



TRASSIR PLANS



# TRASSIR: BASIC ANALYTICS

## TRASSIR MULTISEARCH

Trassir MultiSearch allows you to play back several fragments from the archive simultaneously from different time points at once and view several recordings from selected areas. Up to 7 independent fragments can be launched simultaneously.

## TRASSIR HEATMAPS

Trassir HeatMaps helps increase attentiveness of operator via showing colored trail of each moving object. Colored trail disappears in time.

## TRASSIR ACTIVESEARCH

Trassir ActiveSearch – for interactive motion search video archive in any selected zone of a frame.

## TRASSIR EVENTSEARCH

Trassir EventSearch – for interactive event search based on system log.

## TRASSIR SABOTAGE DETECTOR

Trassir Sabotage Detector – video analytics, that detects sabotage: defocusing effect, field of vision changing, object-glass closing or light striking, connection fault, signal losing. Incident reaction tuning capability, for example: audio signal and/or message, alarm, contacts control.

## TRASSIR FIRE & SMOKE

Trassir Fire & Smoke video analytics that detects fire and smoke. Incident reaction tuning capability, for example: audio signal and/or message, alarm, contacts control.

## TRASSIR SOUND DETECTOR

Trassir Sound Detector – allows to detect loud sound, start recording based on sound threshold before motion starts.

## TRASSIR PLANS

Trassir Plans – Multi-level maps software module for Trassir. Map reflects cameras, servers, other system objects.

## TRASSIR MOBILE CLIENT

Trassir Mobile Client – mobile applications for remote connection to Trassir servers directly via IP address or via Trassir Cloud. Live video, archive access, PTZ, sound and other capabilities.

## TRASSIR CLIENT

Trassir Client – Software application for remote access to Trassir servers. Supported OS: Windows, Linux, MacOS.







# **SOLUTIONS FOR INDUSTRIES**



# ANTI-COVID SOLUTIONS

Intelligent video analytics to respond to pandemics



## TRASSIR Social Distance Detector

was designed as a response to the COVID-19 pandemic for keeping social distance while in a crowd.

- Customized set up of the appropriate distance
- Alert system via notification bars, sms
- Speakerphone notifications



## TRASSIR Face Mask Detector

helps control if people are wearing protective masks in public areas.

- Alert system via notification bars, sms
- Speakerphone notifications
- Access lock if synchronized with doors or turnstiles



# TRASSIR SOLUTIONS: RETAIL

Intelligent cash control video Analytics

## Trassir Active POS

helps bring down both planned and unplanned POS losses

**50+**

active scenarios

### Versatility:

supermarkets | restaurants  
gas stations | pharmacies  
fast food cafes |  
boutiques | etc.

### 10+ available live reports:

- employees' KPI
- cash transactions' KPI
- the amount of losses

### Customization available upon request



CONNECTED TO THE ACTIVEPOS THE VIDEO ANALYTICS MODULES WILL EXPAND THE CAPABILITIES OF ANALYTICS AND CONTROL:

- Store traffic monitoring
- Automatic sales conversion report
- Queue monitoring
- Customer flow analyse
- On-shelf availability control
- Customer activity and places of interest monitoring
- Automatic time sheets
- Employees' presence in the workplace control



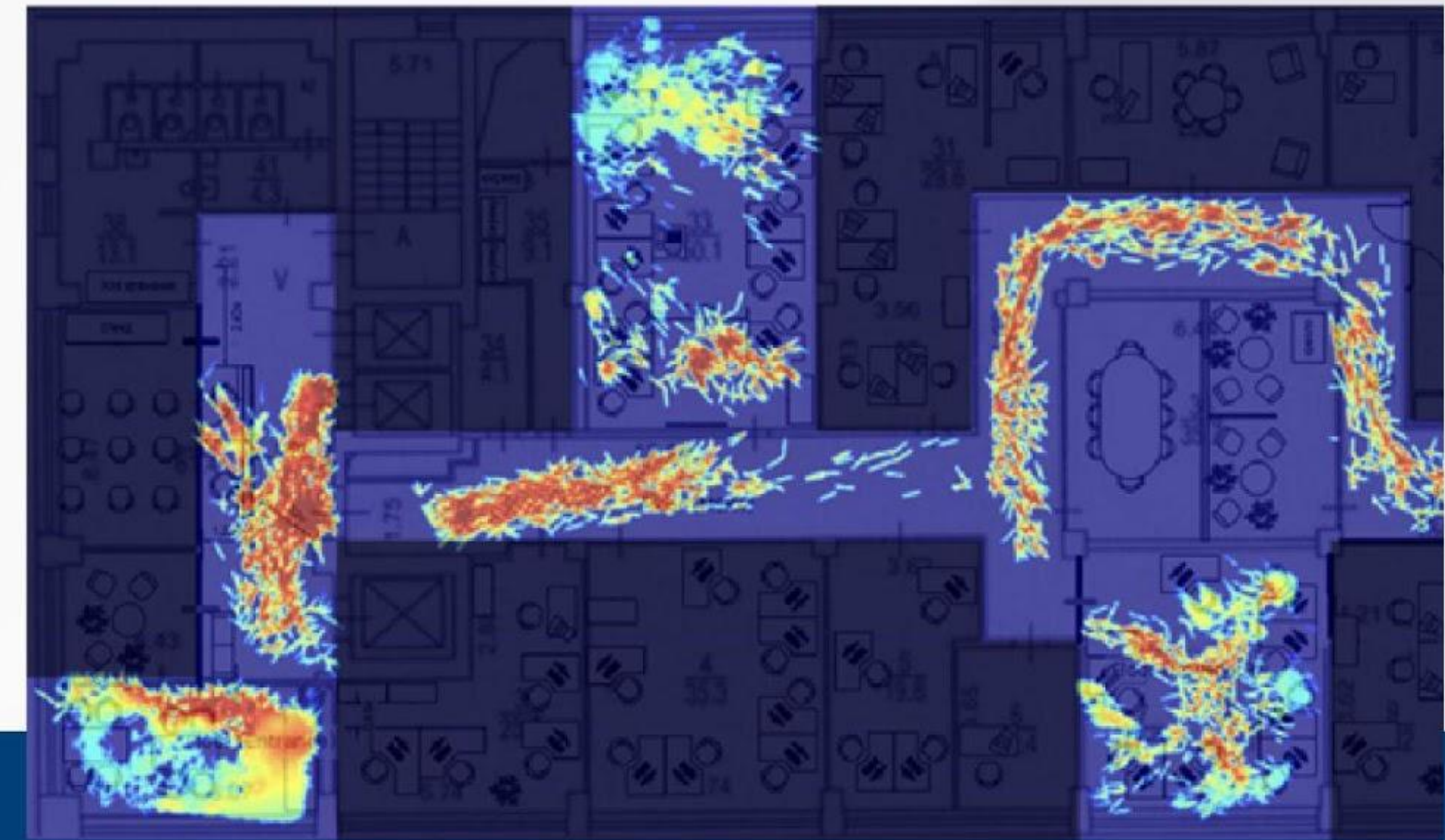
# TRASSIR SOLUTIONS: RETAIL

Improve your business with the intelligent video analytics



**TRASSIR Shelf Detector** enables intelligent video analytics based on neural networks designed to spot empty/occupied shelf spaces.

- Shelves merchandising monitoring
- Out-of-shelf notification
- Automatic reporting to forecast the customers demand on certain SKUs
- Automatic monitoring of the staff performance



**Heat Map on Map** is an advanced thermal image analysis technology.

- **Kinetic map** - shows the areas with high human traffic flow
- **Stationary map** - shows the areas where people are more likely to stop
- **Trajectories** - the approximate movement direction on the map



# TRASSIR SOLUTIONS: TRANSPORTATION

**AUTO TRASSIR** IS DESIGNED TO AUTOMATICALLY RECOGNIZE LICENSE PLATES ONCE CAPTURED BY CAMERAS.

- ✓ High accuracy of license plate recognition
- ✓ Defines the vehicle classes: motorcycles, passenger cars, minivans/vans, trucks, buses.
- ✓ Defines two-line numbers
- ✓ Recognizes license plates from difficult angles

## APPLICATION:

To monitor/control the in-/outcoming vehicle flow (public and private parking lots or garages, checkpoints)

To control automobile traffic at all types of roads

**THE MODULE'S CAPABILITIES MAY BE ENHANCED BY INTEGRATING IT WITH THIRD-PARTY SYSTEMS (ACCESS CONTROL SYSTEMS, VIDEO AND AUDIO CONTROL) AND EQUIPMENT (BARRIERS, ACTUATORS, ETC.).**





# MANUFACTURING: TRASSIR SOLUTIONS

Video analytics controls help meet safety rules



**Trassir HardHat Detector** enables HSE compliance for industrial and other manufacturers and construction projects.



**Trassir Wear Detector** is an analytical module detecting if staff wear their workwear based on the garment color.

- ⦿ Notification system: email, sms
- ⦿ High accuracy object recognition
- ⦿ Definition of hardhats and clothes colors
- ⦿ Customization available upon request
- ⦿ Various color classification for different types of employees



# TRASSIR SOLUTION: PUBLIC AREAS



**Face recognition** - intelligent face recognition and search module based on a pre-configured database of people (residents, staff, etc.).

- ⦿ Prevent access of undesirable people to the facility;
- ⦿ Detects special guests (VIP) to improve the customer service.

## APPLICATION:

Hotels and Restaurants | Schools  
Clinics | Sport facilities | Banks



**Integration TRASSIR video surveillance** system with ACS (Access Control System) provides the client with an integrated ACS will help you to keep track of all events with time reference: each check-in to the parking lot and every passage to the hotel room will be recorded and stored in the archive.

- ⦿ Receive all the movement statistics immediately for both the hotel guests and the staff;
- ⦿ Quickly access to all the information about the latest cases of entering the hotel room;
- ⦿ Set the desired reaction on specific events using the built-in TRASSIR system of rules (scripts).



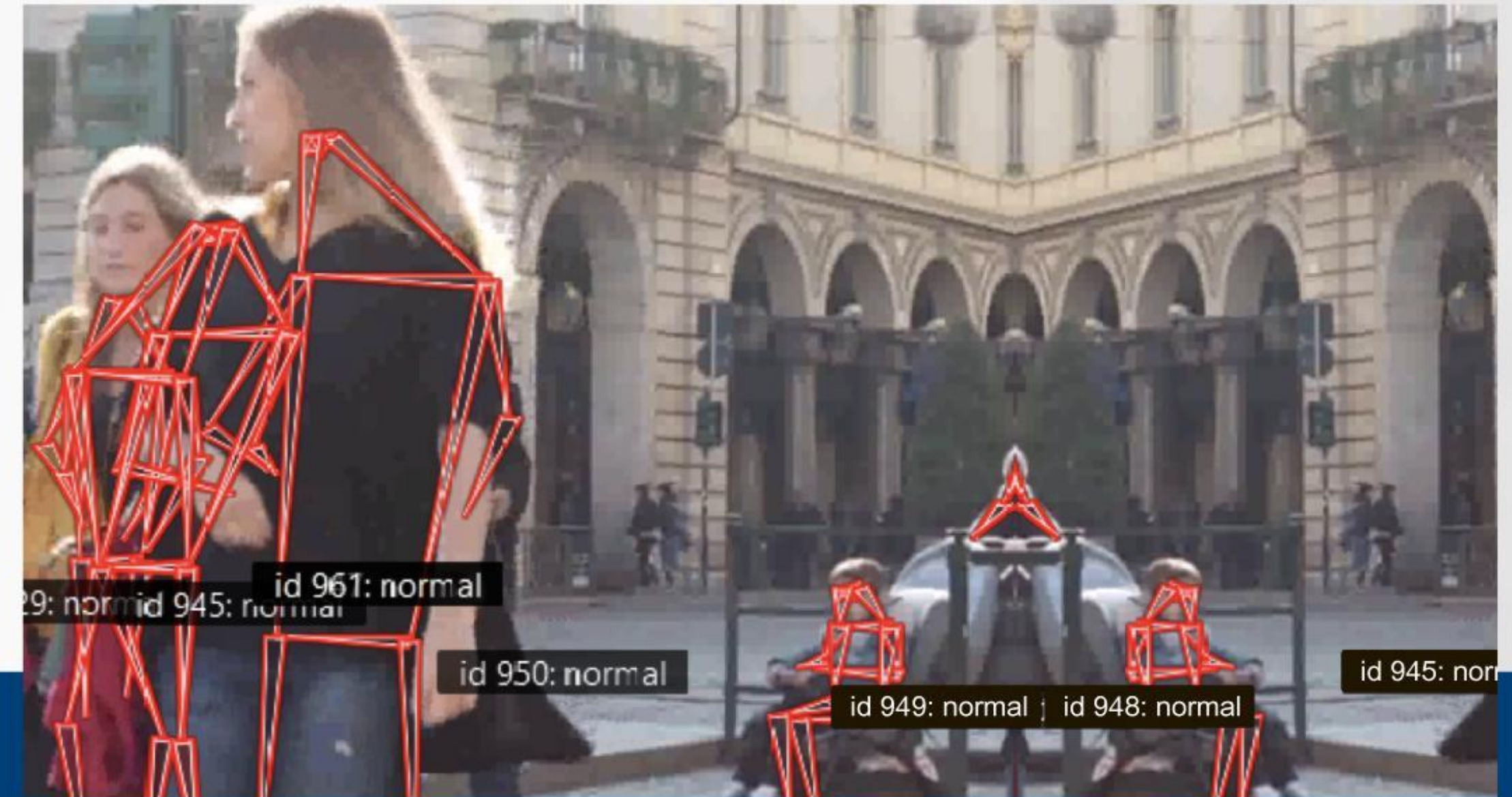
# TRASSIR SOLUTION: PUBLIC AREAS



**The abandoned object detector** is designed to detect abandoned and forgotten things left in the areas monitored by cameras. The detector has the ability to determine the class of the abandoned object: suitcase, backpack, box (and objects similar in shape), bag, duffle (large sports bag) and bag (usually a small woman's bag).

## APPLICATION:

Airports | train stations | streets



**Neural Pose Detector** allows to detect different people's postures and classify them. For instance it helps to track a non-typical behavior of people at ATMs, falls of people in hospitals or nursing homes, raising hands up in an armed attack.

🕒 Recognition of the following set of poses is currently supported:

- sitting
- lying
- raised right hand
- bending over
- raised left hand
- both hands raised

All other postures are classified by the detector as "normal posture".



A woman with long brown hair, wearing a pink striped shirt, is sitting at a desk and pointing at a laptop screen with a black pen. She is looking intently at the screen. In the background, a man with glasses is partially visible, also looking at the screen. The scene is set in a modern office environment with a large window in the background. The text "COMPLEX SOLUTIONS" is overlaid in large, white, bold, sans-serif capital letters on the left side of the image.

# COMPLEX SOLUTIONS



# COMPLEX SOLUTION: TRASSIR DEFENDER

## TRASSIR DEFENDER CONSISTS OF:

HARDWARE AND  
SOFTWARE COMPLEX

CLOUD SERVICE

VIDEO MONITORING  
CENTER

MOBILE APPLICATION

### COMPLETE CUSTOMER SOLUTIONS:

- Video surveillance system development
- Installation organization and equipment configuration
- Handling and verifying all the alarms
- Calling the Rapid Response Team (RRT)
- Technical support

### Violation prevention

Two-way communication with the intruder

### No false positives

Proper verification and artificial intelligence based on deep learning

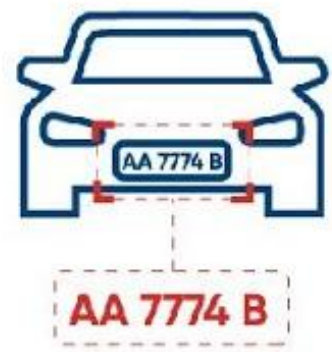
### Cost saving up to 85%

Installed video surveillance and security processes outsourcing reduces the number on security staff and operational expenses



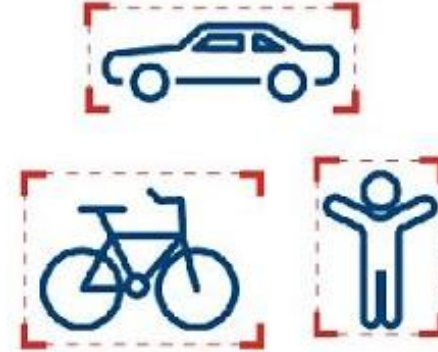
# COMPLEX SOLUTION: SMART CITY

ANYTHING CAN HAPPEN IN A LARGE CITY, EVERY MINUTE OF EVERY DAY. IT'S IMPOSSIBLE TO BE EVERYWHERE AT ONCE, AND DEFINITELY IS A WASTE OF TIME AND POLICE FORCE. TRASSIR DELIVERS A COMPLEX SOLUTION TO ENSURE EVERYTHING IS UNDER CONTROL.



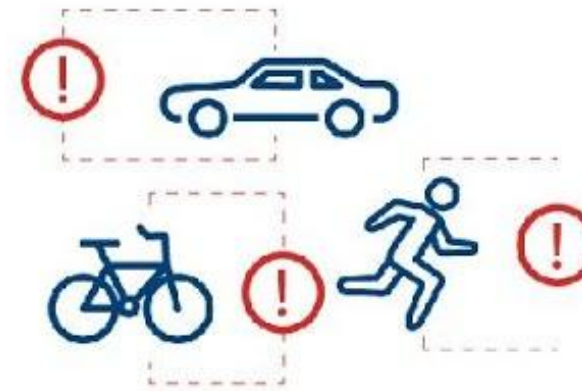
## AUTOTRASSIR

License plate recognition module



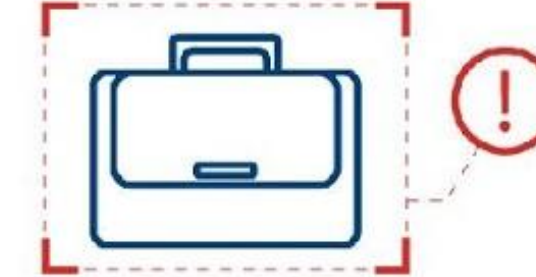
## TRASSIR NEURO DETECTOR

Determines – detects prohibited visitors (people, cars, or bicycles) within protected areas



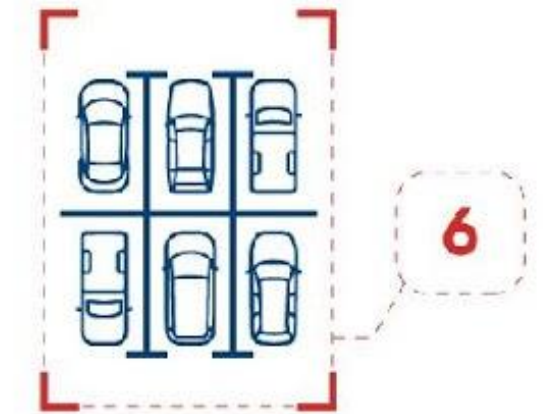
## TRASSIR DIRECTION DETECTOR

Detects an object's movement in the prohibited direction (people, cars or bicycles)



## TRASSIR ABANDONED OBJECTS

Detects abandoned and forgotten items that potentially threatening the city security.



## TRASSIR PARKING

Counts the number of vehicles, as well as the time spent in the parking area

- Complete automated video monitoring of large areas: streets | parks | public | buildings | squares
- High accuracy recognition
- Open system, compatible with legacy equipment



# COMPLEX SOLUTION: TRASSIR INTEGRATION WITH ACCESS CONTROL SYSTEM



## ACCESS CONTROL

- Customized rules for access authorization and restriction
- Multi-factor authentication: complex algorithms for human identification
- A convenient smart alert system



## MONITORING

- Real time supervision with access from any part of the world
- History of all events and operator's actions



## VIDEO ANALYTICS

- Face recognition, employee time record keeping, crowd detection, face masks and uniform recognition
- Non-contact access to the facility of the guests and employees in the current pandemic situation
- Regular reporting to prevent the future violations

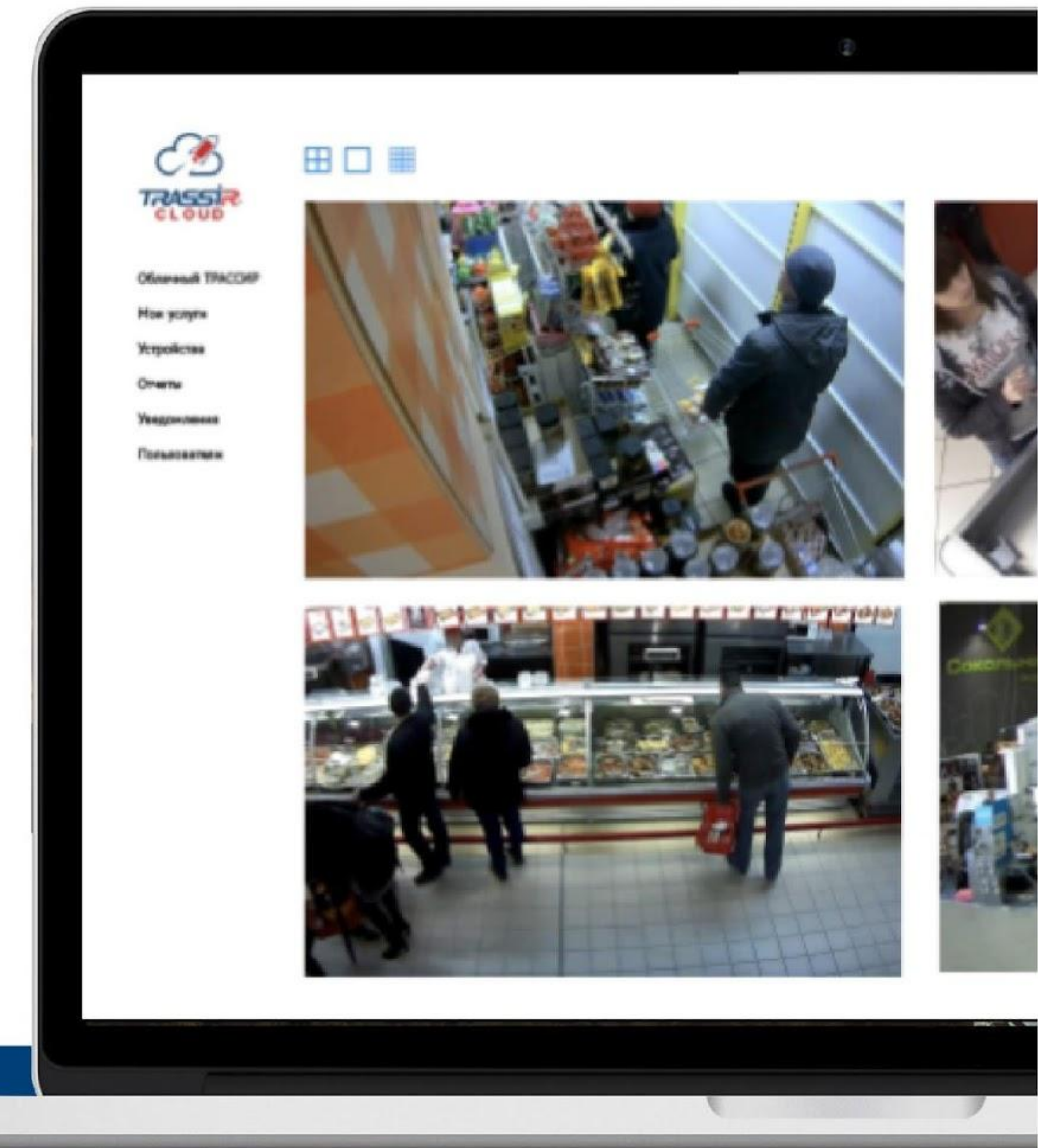


# TRASSIR CMS

**TRASSIR CMS** is a professional cloud-based web service with the record protection functionality.

## MAIN ADVANTAGES:

- ✓ Supports an unlimited number of IP-cameras and video servers.
- ✓ instant alerting: e-mails or push alerts.
- ✓ Archive video storage with customizable archive depth.
- ✓ Exports video archive to the file. Video archive is stored at the Cloud and can be downloaded to any device.
- ✓ Private Cloud installation for companies that require independent local-based video surveillance.
- ✓ Double-stream archive record: main and sub stream. Stream back-up allows to save all data even with low-speed or unstable connection.



## ANY TIME. ANYWHERE

Access the system from a mobile device or desktop:

🌐 [WWW.CLOUD.TRASSIR.COM](http://WWW.CLOUD.TRASSIR.COM) 🌐 TRASSIR APP: ANDROID | IOS 🌐 CLIENT FOR WINDOWS | LINUX | MACOS



# CONTACTS

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Hardware Catalog



Video Management  
Software Catalog