

**TRASSI<sup>®</sup>**

# TRASSIR TODAY



Experience in CCTV surveillance

**SINCE 2002**

**15 000** +

loyal customers around the globe

**3** R&D centers

**50** countries with TRASSIR installations



# Why TRASSIR?

## Compatible with 99% of cameras

NVRs and analytics are compatible with 99,9% of IP-Cameras. Connection options include:

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

## Highly customizable

Complete customization for specific projects using rules and Python scripts

## Easy predictable TCO

Lifetime licensing, firmware updates, free technical support

## Pre-sale demo and training

Our engineers demonstrate system functions and conduct training sessions and webinars

## Technical project supervision

Dedicated technical manager on project base

## Turnkey solutions

Complete end-to-end video surveillance systems of any size

# Privacy, protection of personal information and data



Client-server architecture with flexible access rights configuration for owner, administrators, operators, managers.

Archive can be encrypted. So that only the password owner can access it.

All network connections, including video stream transferring, are protected with SSL and TLS protocols.



# WIDE RANGE OF SOLUTIONS FOR VARIOUS INDUSTRIES



BANKING

WAREHOUSES

HORECA

EDUCATION  
INSTITUTIONS

RETAIL

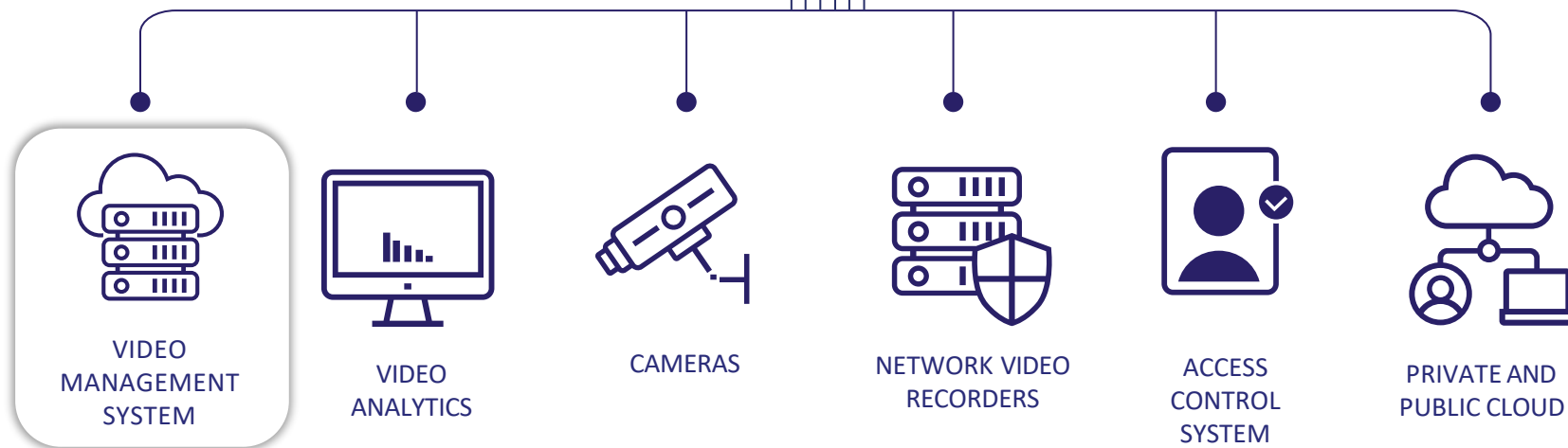
MANUFACTURING  
ENTERPRISES

SMART  
CITIES



# TRASSI®

6 in 1



NEURAL NETWORKS

ARTIFICIAL INTELLIGENCE

MACHINE LEARNING

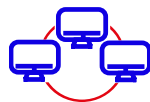
**Stable software to manage monitoring and video surveillance systems for businesses of any size**

- Internal scripting system with nearly unlimited system automation capabilities
- Convenient and adaptive interface that can be customized to fit tasks
- Configure devices, cameras, and video recorders in the TRASSIR interface
- Flexible user rights management system
- Integration with access control systems, security and fire alarm systems, intercom, etc.
- Simultaneous video recording on multiple hard drives
- Record, export, and view streams in multi-threading mode
- Interactive maps
- Send push notifications to email, Telegram, Mobile application and TRASSIR Cloud
- Failover
- Compatible with 99% of IP cameras on the market: ONVIF, RTSP supported
- Automatic performance monitoring
- Easy access via client apps for web, desktop and mobile
- API/SDK/Access to SQL DB for integration with other systems
- Archive and stream encryption

**TRASSIR VMS advanced features**



TRASSIR OS on TRASSIR servers: video surveillance server performance and security



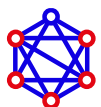
TRASSIR CMS: extensive video surveillance system management solution for large scale projects



Video analytics processing on GPU for maximum return on investment



Quick and efficient event search in the archive



Advanced neural network video analytics



# VMS core licenses

TRASSIR VMS functionality is available with channel licenses

	AnyIP INT	AnyIP PRO INT	Enterprise IP INT	AnyIP win64 INT	AnyIP PRO win64 INT	Enterprise IP win64 INT
Connecting one camera	+	+	+	+	+	+
TRASSIR VMS installation on TRASSIR OS-based servers	+	+	+	-	-	-
Installing TRASSIR VMS on a Windows-based servers	-	-	-	+	+	+
TRASSIR VMS: video surveillance, video wall, video archive, situation center, maps, system monitoring, user management, API, scripts, etc.	+	+	+	+	+	+
Web interface and mobile version (when connected to TRASSIR Cloud)	+	+	+	+	+	+
Built-in detectors: line crossing, motion, sound, heat map, sabotage	+	+	+	+	+	+
TRASSIR CMS: private cloud functionality; local web-interface; unified user management, LDAP; solve the problem of low-bandwidth Internet channels; centralized monitoring and reports; connect any number of servers and cameras; etc.	-	+	+	-	+	+
TRASSIR License Manager: centralized license management	-	-	+	-	-	+
TRASSIR VMS installation on Linux-based servers (CentOS, Astra Linux)	-	-	+	-	-	+
Connect PTZ cameras, FishEye cameras, thermal imaging cameras	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>
Neuro Detector - detects people on video with very high accuracy, generates an alarm, and sends out an alert when someone enters a specified area	<b>P</b>	<b>P</b>	<b>P</b>	-	-	-
NetPing and Intercom integration	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>
Analytics HW - software for setting up hardware video analytics (line intersection detector and abandoned object detector) built into video cameras	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>

P – stands for PROMO, all features marked P are included at no additional cost in any single core license.



## Extend your VMS functionality with the following features



### **TRASSIR NETSYNC INT**

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Archive synchronization from other TRASSIR servers



### **TRASSIR PACS INT**

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Physical Access Control and Management System on the TRASSIR platform.



### **Integration with ACS and Fire Alarm systems**

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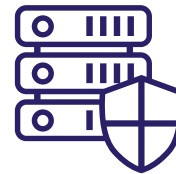
Integration with 3rd party ACS and Fire alarm systems (ask your manager for available integrations)

# TRASSI®

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CAMERAS



NETWORK VIDEO  
RECORDERS



ACCESS  
CONTROL  
SYSTEM



PRIVATE AND  
PUBLIC CLOUD

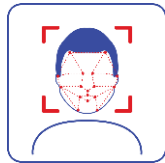
NEURAL NETWORKS

ARTIFICIAL INTELLIGENCE

MACHINE LEARNING

# Software Video Analytics |

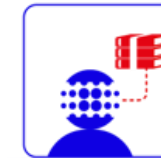
## Face Recognition Solutions



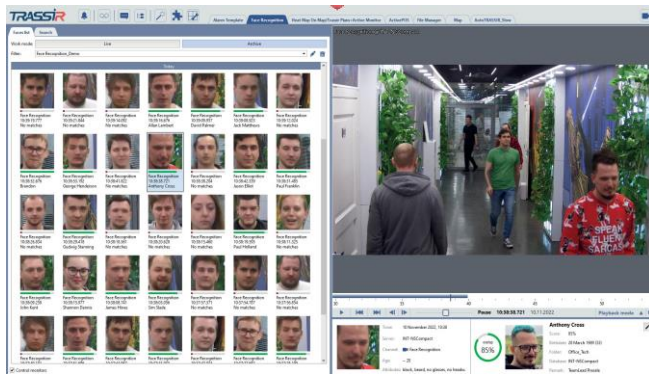
**TRASSIR**  
Face Recognition INT



**TRASSIR**  
Theft Prevention INT



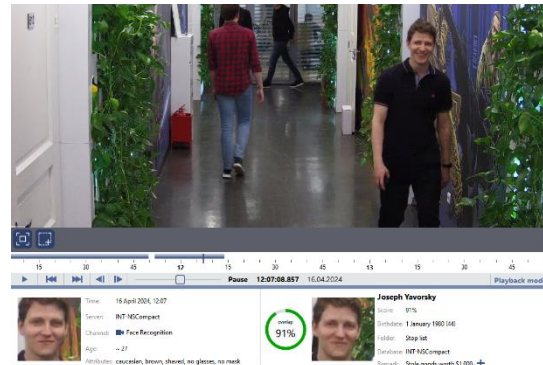
**TRASSIR**  
Blurred Face INT



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

- 99,8% accuracy
- Prevent access by unauthorized people to the facility
- Obtains facial attributes for advanced analytics and searches based on specific parameters (race, age, sex, hair colour, beard, moustache, glasses, headwear, protective mask, etc.)
- The face database can be accessed from a local or remote TRASSIR server with options to copy, import, and synchronise the face database
- Intergration with ACS
- Attendance and shift monitoring

Win64 available | Per channel



has a single web interface for managing a database of offenders for retail store chains (TRASSIR servers). Stores video evidence of incidents, and maintains a record of the amount of losses incurred by each person.

Module functions:

- Recognition of faces and other attributes of appearance;
- Easy search and uploading of evidence base
- Quick alerts;
- Availability of the thieves database at all retail outlets
- Using offload analytics

Win64 available | Per channel

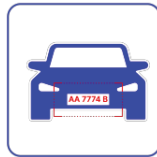


The functionality allows you to blur people's faces when exporting video from the archive. One license for 1 server.

Per server

# Software Video Analytics |

## AutoTRASSIR (LPR) Solutions



### AutoTRASSIR+ INT



### AutoTRASSIR Parking INT



is designed to automatically recognize license plates in the camera's field of view

- Highly accurate license plate recognition
- Identifies vehicle class: motorcycle, passenger car, minivan/van, truck, bus
- Recognizes two-line numbers
- Recognizes license plates in difficult conditions
- 25 countries supported including GCC
- Quick search of license plate numbers in archive
- Real-time banned/approved vehicle identification list and notifications
- Average speed calculation between two cameras
- Integration with camera-based LPR cameras (ask your manager for specific models)

Win64 available | Per channel



designed to monitor the number of vehicles in the parking area

- Records cars entering and leaving the parking lot and saves the vehicle number, photo, and exact time of entry and exit;
- Calculates the length of time vehicles spend in the parking lot;
- Displays information about current parking status and history of vehicles on the operator's screen.
- Based on the data received, TRASSIR Parking generates a list of vehicles with their exact time and date of entry/exit.

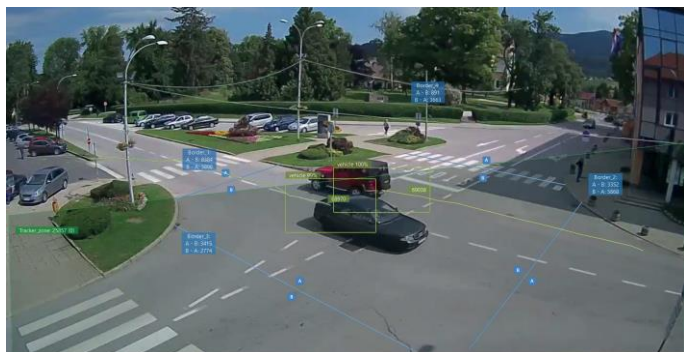
Win64 available | Per channel

## Software Video Analytics |

## People Detection Solutions



### TRASSIR Neuro Counter+ INT



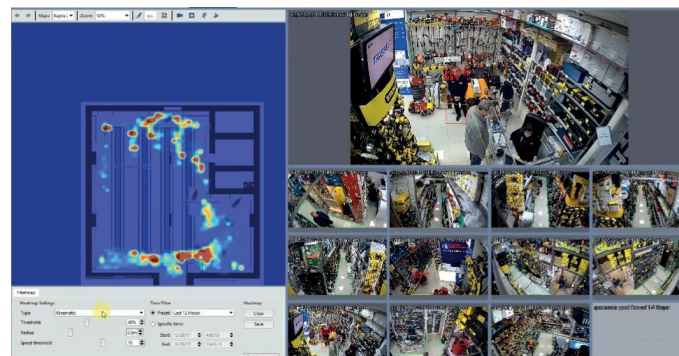
an intelligent video detector that counts unique objects in a specified area

- Counts people, cars and bicycles
- Counts objects crossing a designated line - up to 16 lines per channel can be supported simultaneously
- Includes detection of any movement toward prohibited areas by people, cars, or bicycles
- Automatic reporting on: number of people, minimum time spent in the crowd, etc
- Highly accurate object recognition
- Monitor the distance between people in public places

Per channel



### TRASSIR Heat Map on Map INT



an advanced thermal image analysis technology

- Kinetic map - shows areas with high foot traffic
- Stationary map - shows areas where people are more likely to stop
- Trajectories - approximate directions of movement on the map

Per channel

# Software Video Analytics |

## People Detection Solutions



**TRASSIR**  
**Queue Detector+ INT**



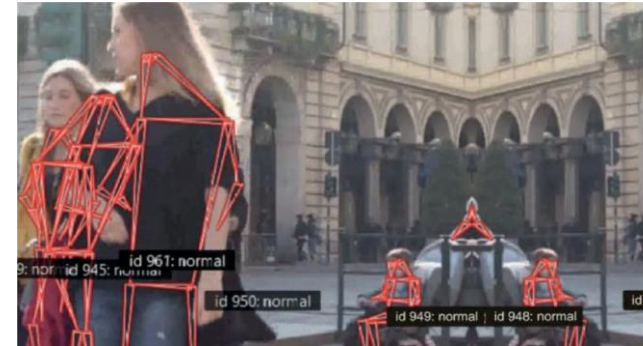
an intelligent video analytics system using neural networks designed to count the number of people in a queue

- Automatic reporting on the number of people in the queue and time spent there
- Notification module for when specified queue length is exceeded

**Per channel**



**TRASSIR**  
**Pose Detector INT**



detects and classifies people's postures. For instance, it can help identify and track unusual behavior

Currently supports recognition for the following set of poses:

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

The detector can be trained to recognize other poses if necessary

**Per channel**

## Software Video Analytics |

## Work Safety Solutions



### TRASSIR Workplace Detector INT



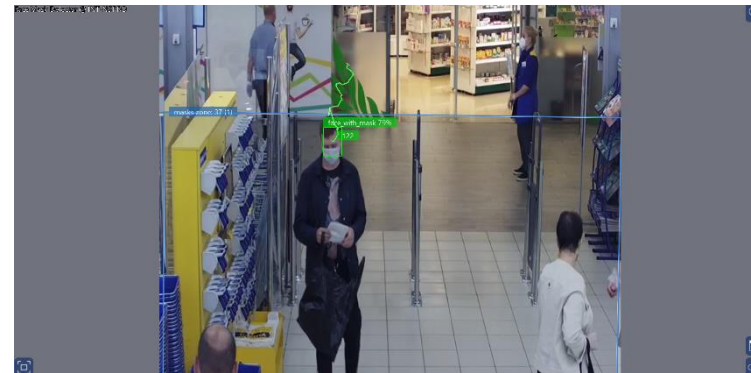
tracks a person's absence from the workplace

- Alarm notification in cases of worker absence
- Daily reporting on employee's real time on- and off-site

Per channel



### TRASSIR Face Mask Detector INT



- Monitors compliance with use of personal protective equipment in conditions of increased epidemiological danger
- Sends real-time notifications if someone is detected without a protective mask in the camera's field of view.

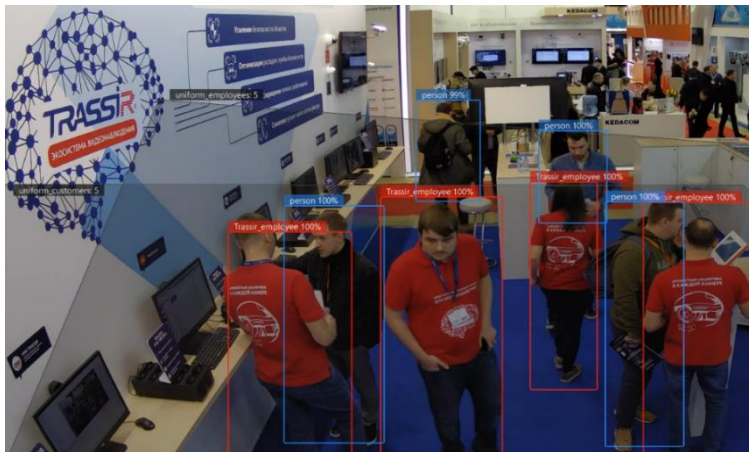
Per channel

# Software Video Analytics |

## Work Safety Solutions



**TRASSIR**  
Staff Tracker INT



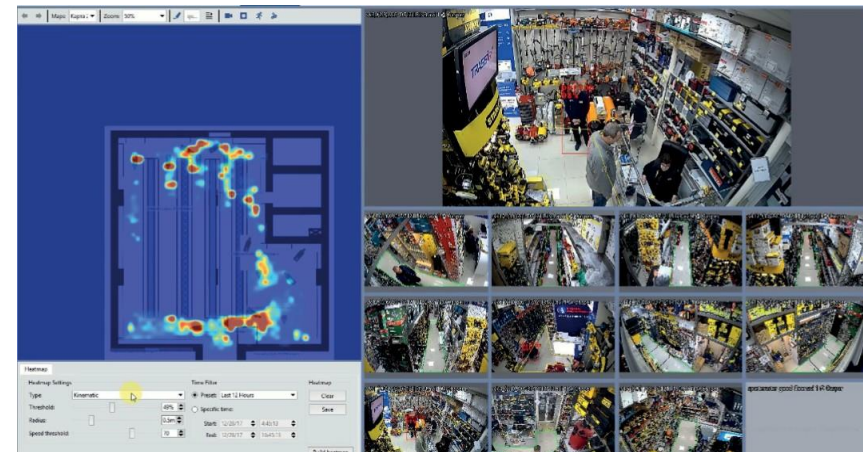
allows employee work performance to be inspected to improve customer service

- Tracks the presence of required personnel in service areas
- Keeps a record of customers left unattended, reports on service quality
- Real time alerts when customer service standards are not met

Per channel



**TRASSIR**  
Heat Map on Map INT



an advanced thermal image analysis technology

- Kinetic map - shows areas with high foot traffic
- Stationary map - shows areas where people are more likely to stop
- Trajectories - approximate directions of movement on the map

Per channel

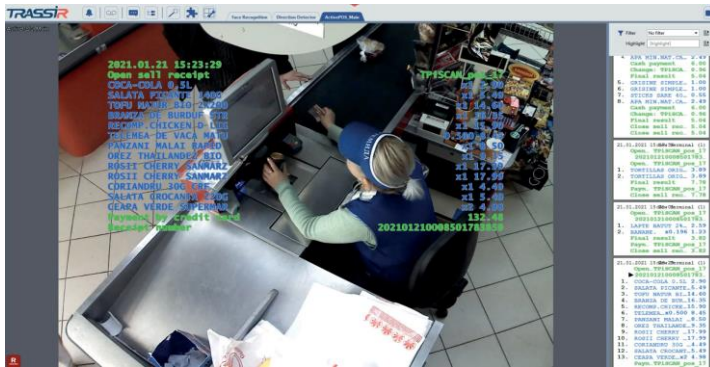


# Software Video Analytics |

## Point Of Sales Solutions



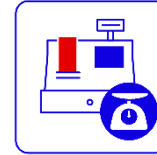
**TRASSIR**  
**ActivePOS+ INT**



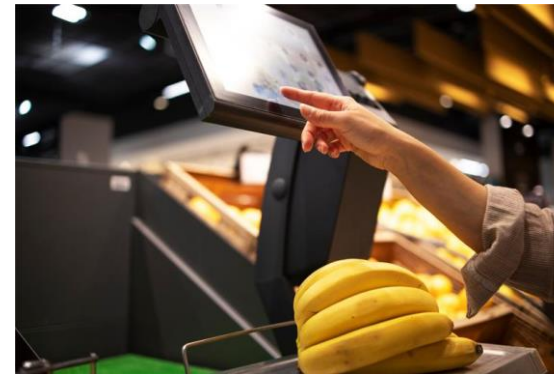
intelligent cash control module

- Helps decrease both planned and unplanned POS losses
- includes more than 60 detectors for predefined loss scenarios. These include: cashier fraud, cashier error (unintentional losses), sub-par service standards, violations of cash management service regulations (determined by law). Generates reports on: total losses (divided by cashier or cashbox), cashier, and analyst KPIs. Requires connection with cash register system. Integration with third party POS systems

**Win64 available | Per 2 channel**



**TRASSIR**  
**ActivePOS Weight INT**



Helps control products by weight in FMCG retail: automatically track whether all weighed goods pass through the cash registers (the duration is customizable; for example, within 24 hours). The application generates reports containing: product name, weighing terminal + weight, cash terminal + cost and weight by check, links to video archive, weighing time and scanning time at checkout. Requires ActivePOS module on the store's cash registers and scales.

**Win64 available | Per server**

# Software Video Analytics |

## Warehouse Stock Solutions



### TRASSIR ActiveStock+ INT



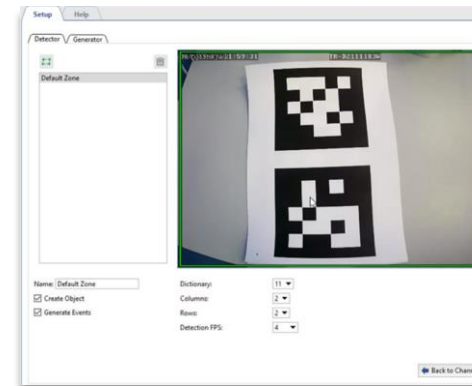
used for event-based video monitoring of warehouse operations

- Provides regulation of potential disputes, determines responsibility for availability of goods, and investigates cases of damage in the warehouse
- Offline and online monitoring available
- Event search: reporting document numbers, product name, quantity, cell ID, pallet, customer or organization name, and more

**Win64 available | Per 2 channel**



### TRASSIR ArUco Detector INT



TRASSIR ArUco Detector allows you to recognize ArUco-markers applied to objects. It can be used as an auxiliary tool for accounting in warehouse complexes, logistics distribution centers, production facilities, etc.

Using ArUco markers detector it is possible to do a quick search in the archive and keep records of types of goods, pallets, and any production blanks or spare parts.

ArUco markers can be created within TRASSIR VMS

**Win64 available | Per channel**

# Software Video Analytics |

## Object detection Solutions



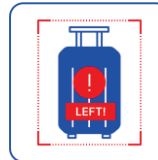
### TRASSIR Bag Counter



a module that automatically counts bags or other similar objects on the conveyor belt

- Eliminates errors associated with manual counting of shipped goods, resulting in a reduction of financial losses due to error or staff fraud
- In addition, the module can automate the process of shipping a specific amount of goods. The operator can enter the necessary number of items for shipment. After goods are unloaded, the conveyor stops automatically

**Win64 available | Per 2 channel**



### TRASSIR Left Object Detector



designed to detect abandoned and forgotten items.

Detect third party interactions with the object. The detector determines the class of abandoned object: suitcase, backpack, box (and objects similar in shape), bag, duffel (large sports bag), or handbag (usually a small lady's bag)

**Win64 available**

# TRASSI<sup>AI</sup>

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ARTIFICIAL INTELLIGENCE

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TRASSIR's vast experience and deep understanding of both the security systems market and the needs of its customers have enabled us to create a truly advanced line of TRASSIR cameras to meet the high demands of users. All TRASSIR products can be successfully implemented at facilities of any scale



### Value for money

- Advanced video surveillance technologies at affordable prices from budget segments to advanced levels



### Quality image

- Up to 120db True WDR
- Up to 0.001 Lux sensitivity
- Up to 8MP resolution



### Cutting-edge technology

- High-performance
- last-generation codecs (H.265, H.265+);
- Full-color night recording without switching to black-and-white mode (FTC cameras);
- Hardware analytics.

## Eco

Affordable cameras with basic features

## Trend

Professional video cameras for various task levels

## Pro

High-performance video cameras with unique characteristics and design protection

## Ultra

High-performance video cameras with a wide range of features

	Eco	Trend	Pro	Ultra
WDR	DWDR 105 dB	RWDR 120 dB	RWDR 120 dB	RWDR 120 dB
Resolution	2MP/4MP	2MP/5MP/8MP	2MP/5MP/8MP	2MP/5MP/8MP with increased framerate
Iris Type	Fixed	Fixed	Fixed	P-Iris
Audio	✗			
Local storage	✗			
Onboard Video Analytics	✓	✓	AI	Advanced AI
Alarm In/Out	✗	In some models	✓	✓
Warranty	2 years warranty	5 years warranty	5 years warranty	5 years warranty

## TRASSIR Video Cameras. Eco line



Affordable cameras with basic features -  
a line for typical video surveillance tasks

- ✓ Resolution 2MP/4MP
- ✓ Hardware analytics
- ✓ Indoor/outdoor models

- ✓ Affordable price
- ✓ 2 years warranty

# TRASSIR Video Cameras. Trend line



Professional video cameras for various task levels -  
line for security and monitoring in complex systems

- ✓ Resolution 2MP/5MP/8MP
- ✓ Two-way audio
- ✓ Basic hardware analytics

- ✓ Built-in archive: recording reliability
- ✓ 5 years warranty



# TRASSIR Video Cameras. Pro line



High-performance video cameras with a wide range of features -  
line for major projects

- ✓ High image quality
- ✓ Two-way audio
- ✓ Basic/advanced hardware analytics
- ✓ Built-in archive: recording reliability
- ✓ Option to integrate with access control systems
- ✓ 5 years warranty

# TRASSIR Video Cameras. Ultra line



High-performance video cameras with a wide range of features -  
line for major projects

- ✓ High image quality
- ✓ Two-way audio
- ✓ Basic/advanced hardware analytics
- ✓ Built-in archive: recording reliability
- ✓ Option to integrate with access control systems
- ✓ AutoIRIS
- ✓ 5 years warranty

# TRASSI<sup>AI</sup>

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# Line of network servers



## UltraStation series

**Number of cameras:**  
Up to 256

**Support:**  
All TRASSIR analytics modules RAID  
0, 1, 5, 6, 10, 50, 60  
HotSwap Redundant power supply units  
HotSwap HDD 3.5"  
Connect up to 2 UltraStorage

**Actual archive size:**  
38.2TB - 465.66TB

**Comes with:**  
16/24/36 HDD 3.5"  
2 power supply units  
TRASSIR Neuro Detector  
Camera licences



## Neuro Station series for analytics

**Number of cameras:**  
16/32/48/64/128/160

**Support:**  
All TRASSIR analytics modules Up to  
4K resolution  
H.265+/H.265/H.264 MPEG4

**Comes with:**  
TRASSIR Neuro Detector



## MiniNVR series

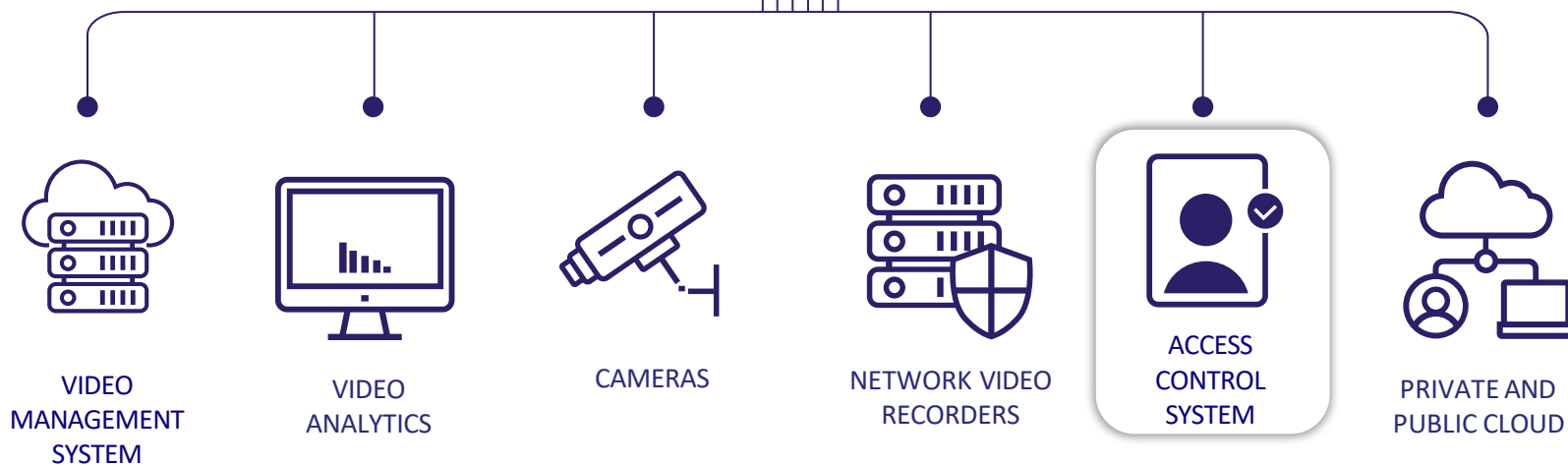
**Number of cameras:**  
4/8/16/24/32

**Support:**  
With/without PoE  
H.265+/H.265/H.264 MPEG4

**Comes with:**  
AnyFree/AnyIP camera licences

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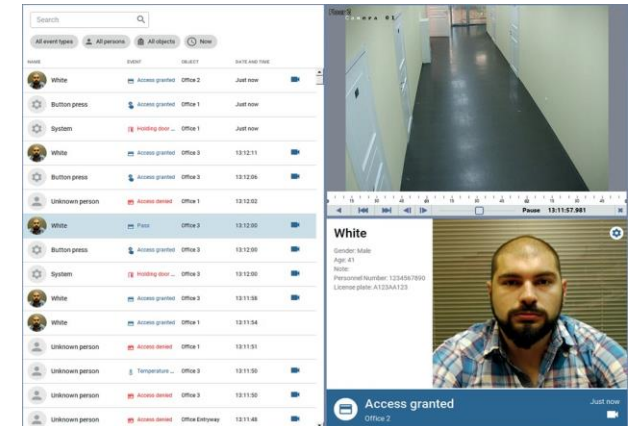
MACHINE LEARNING

## Proprietary access control and management system on the TRASSIR platform

The system includes access management, event registration and analysis report generation, and employee timekeeping. The video analytics and intercom integration capability provides all the benefits of access control systems and smart video surveillance together in the TRASSIR platform. Proprietary line of access control equipment: low-cost network controllers and readers.

### Possibilities

- Human resource management
- Temperature-based access control
- Photo/Video identification
- Access level configuration
- Equipment setup and management
- Multi-factor authentication
- Flexible work and access schedules
- Building analysis reporting
- Configure flexible responses to system events
- Manage visitor passes
- Work in mobile app and browser



### Advantages



Comprehensive solution



One server for one system - VMS and ACS on one server

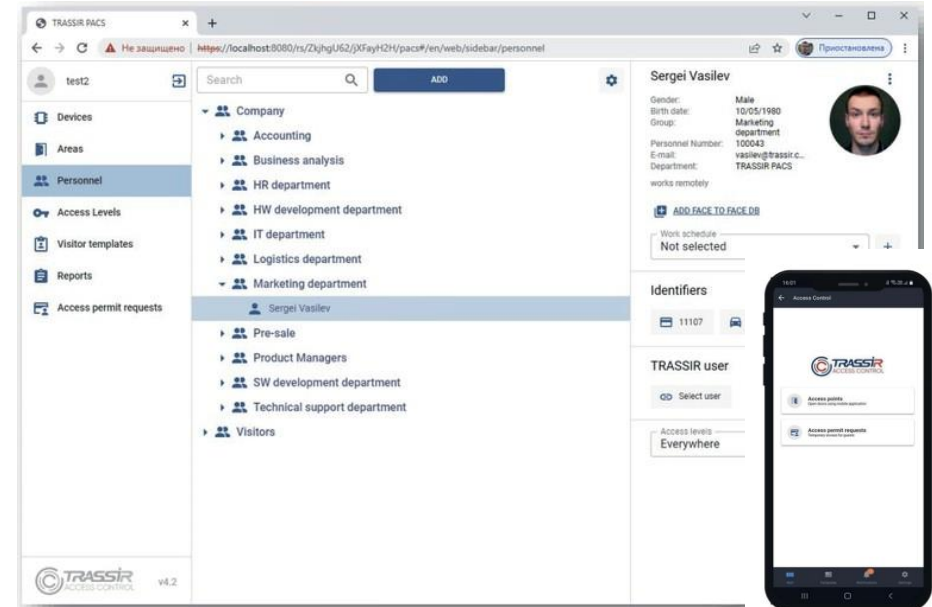


Transparent pricing

\*Supported hardware: TRASSIR and third - party vendors

## Key differences from other access control systems

- Multivendor ACS (TRASSIR, HikVision, HiWatch, ZkTeco, TrueIP)
- Integrated security system (CCTV, video and event analytics, fire alarm system, ACS, intercom, cloud technologies)
- Client customization available (Rules, Scripts, Open API)
- Economy and simplicity
  - No need for an additional server
  - One license for all features and a user-friendly interface



## Types of IDs



Cards



Fingerprints



PIN-codes



Faces



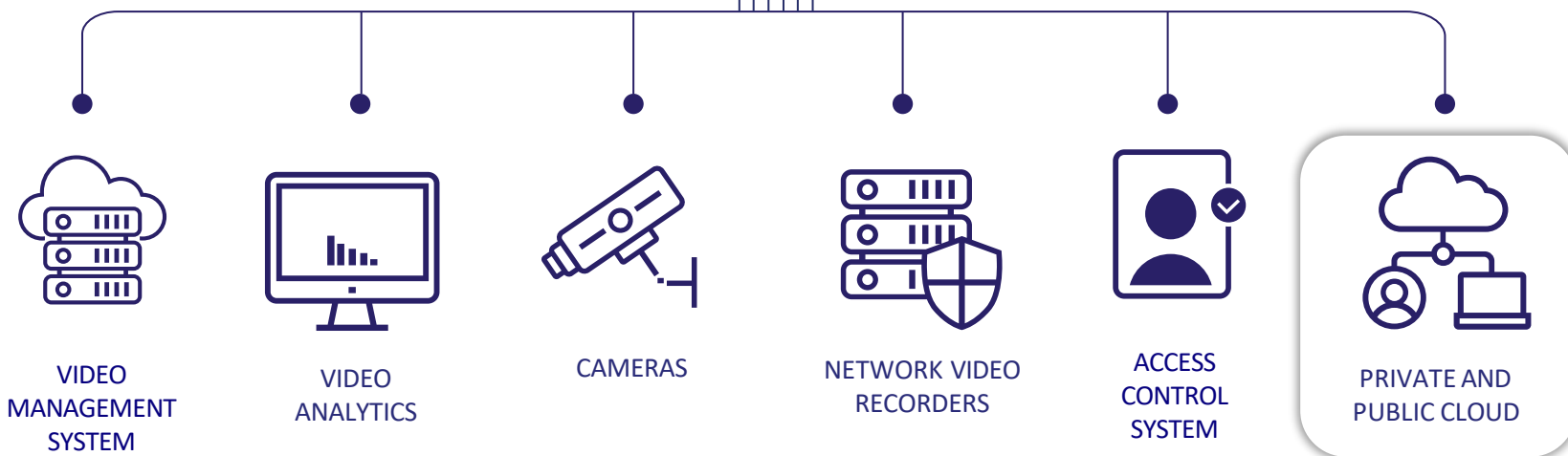
Temperature



License plate numbers

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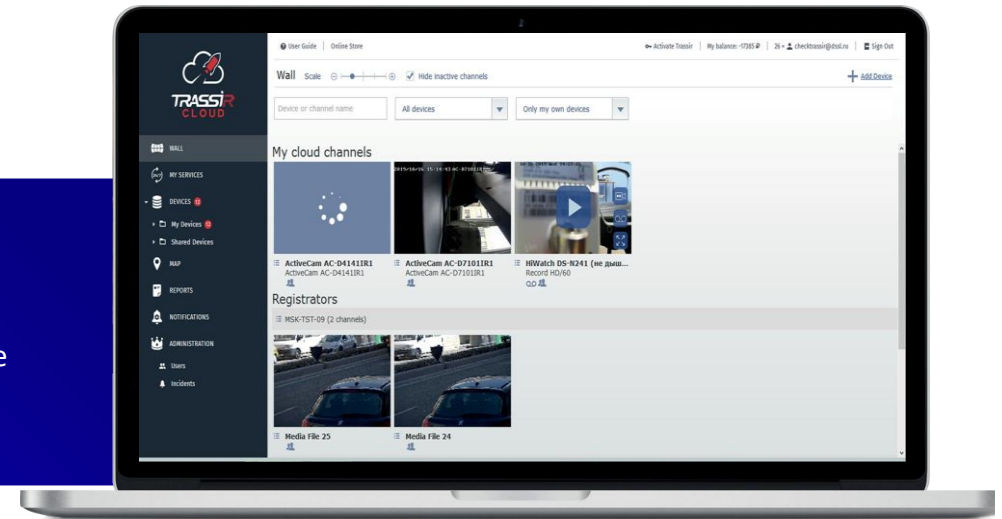
ARTIFICIAL INTELLIGENCE

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# TRASSIR Cloud

Cloud-based video surveillance as an efficient, all-purpose tool for setting up systems of any scale. TRASSIR Cloud CCTV is a carrier-grade plug-and-play value-added service developed for telecoms/ISPs/Enterprises to extend their service portfolios, grow userbases, and secure additional revenue streams through cloud-based video surveillance for SMB and private subscribers.



## TRASSIR CLOUD characteristics in accordance with partners

**95%** Quick setup

**99%** Good technical support

**87%** Convenient software

**90%** Easy to learn

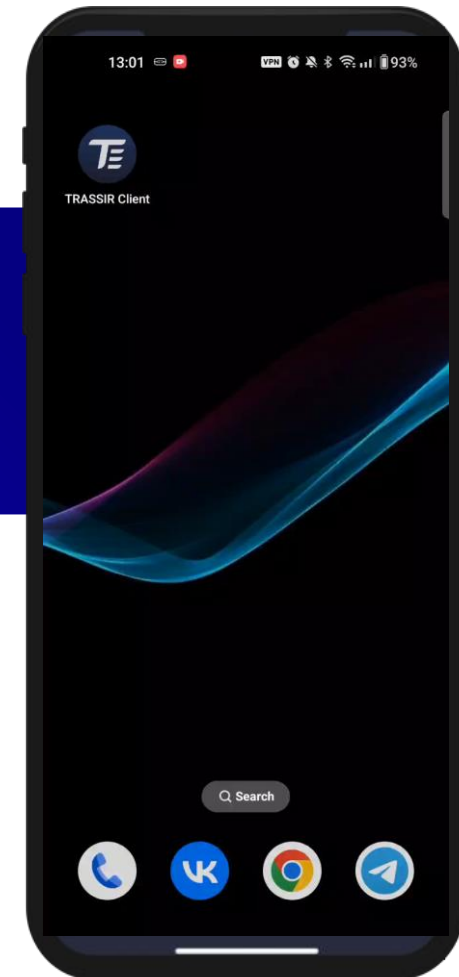
**80%** Competitive pricing

## White Label partnership program

- A new revenue generation channel
- A new user communication channel
- Expanded eco-system, digital transformation
- Set up custom plans and product-based 'promo packages' as tools for boosting sales
- No need to pay for service development: using the TRASSIR cloud product we identify user needs and customize servers together

## TRASSIR Cloud

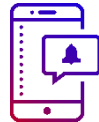
TRASSIR Cloud CCTV is a carrier-grade plug-and-play value-added service developed for telecoms/ISPs/Enterprises to extend their service portfolios, grow userbases, and secure additional revenue streams through cloud-based video surveillance for SMB and private subscribers



### Mobile App features



Connection of cameras and video recorders by IP address or via the cloud



Receive PUSH notifications from video analytics



View live and archived video



Working with ACS: ability to issue temporary guest passes, manually open doors



View server health indicators

# TRASSIR CMS

Extensive video surveillance system management solution created for the closed IT loop of large customers



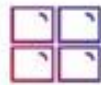
Unified user management, LDAP



Centralized sever management and updating



Video surveillance equipment health monitoring



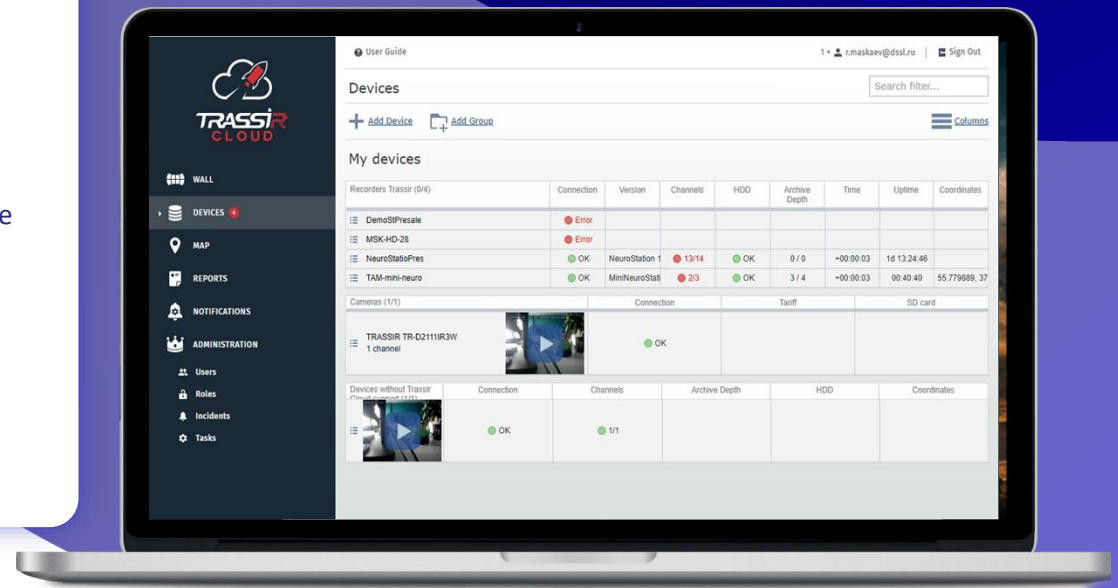
Access to both web interface and mobile app



Internet traffic saving



Situation centre



TRASSIR CMS is designed for



Over 1000 devices

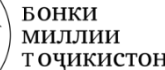


Multiple locations



When 24/7 system monitoring is required

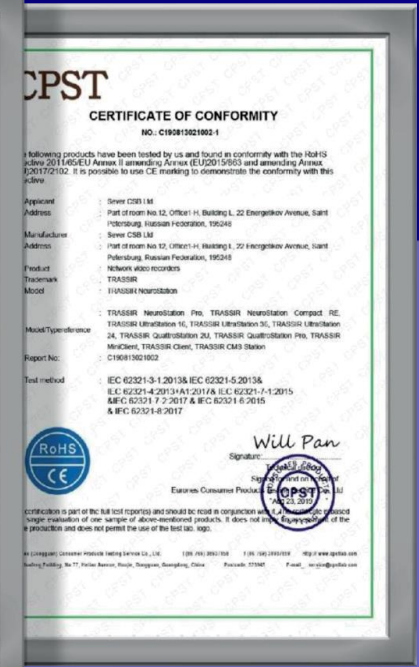
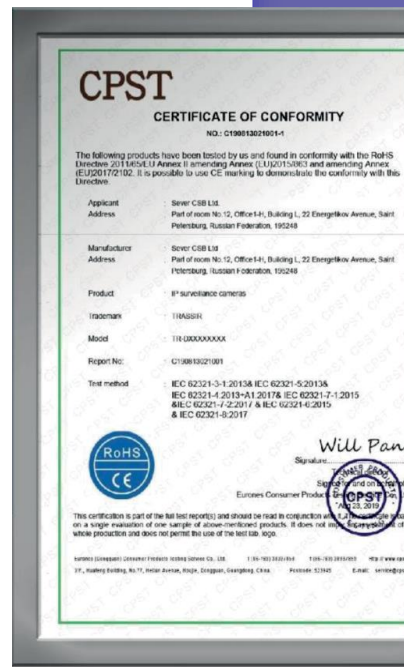
## OUR CLIENTS AND PARTNERS ACROSS THE GLOBE



# CERTIFICATION

TRASSIR equipment meets EU safety standards and other applicable requirements (CE certification)

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



Additional certificates can be obtained to meet the requirements of a specific customer's case or upon a partner's request

**TRASSIR**<sup>®</sup>



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