



# Solutions for Logistics Center

## Common challenges when managing a logistics park

- Difficult to track the status of each dock
- Shortage of human resources or high load for tracking docks
- Large number of docks managed
- Insufficient evidence base during disputes
- Higher requirements for process efficiency or budget optimisation

## Tasks for a comprehensive solution

- Automate monitoring and accounting for cargo
- Automate vehicle accounting and monitoring systems
- Boost the efficiency of the warehouse complex

## TRASSIR solution

- Video surveillance and quick archive search
- Visualisation of dock status on a map
- Detailed recording of loading and offloading
- Overview of operations on a dashboard

## The result

- ✓ Objective information for decision-making and planning logistics processes
- ✓ Process optimisation
- ✓ Shorter downtime for transport waiting for clearance
- ✓ Faster handling of claims
- ✓ Recording and processing cargo acceptance and shipment
- ✓ Automation of data reconciliation

# We Lower Risks and Improve Performance

Improves the safety of the facility overall and performance at all stages from the receipt and storage of goods to the formation of goods and their shipment

## STAFF MONITORING

Maintain records of working hours, monitor compliance with safety rules

- \* Quick passage of employees through turnstiles
- \* Work time tracking
- \* Locating workers in real time
- \* Monitoring safety compliance

## PERIMETER MONITORING

Respond faster to emergencies, reduce losses and damage

- \* Tracking the movement of suspicious objects
- \* Creating restricted areas without physical barriers
- \* Rapid response to emergencies
- \* Preventing unauthorised access by third parties

## MANAGING OPERATIONS

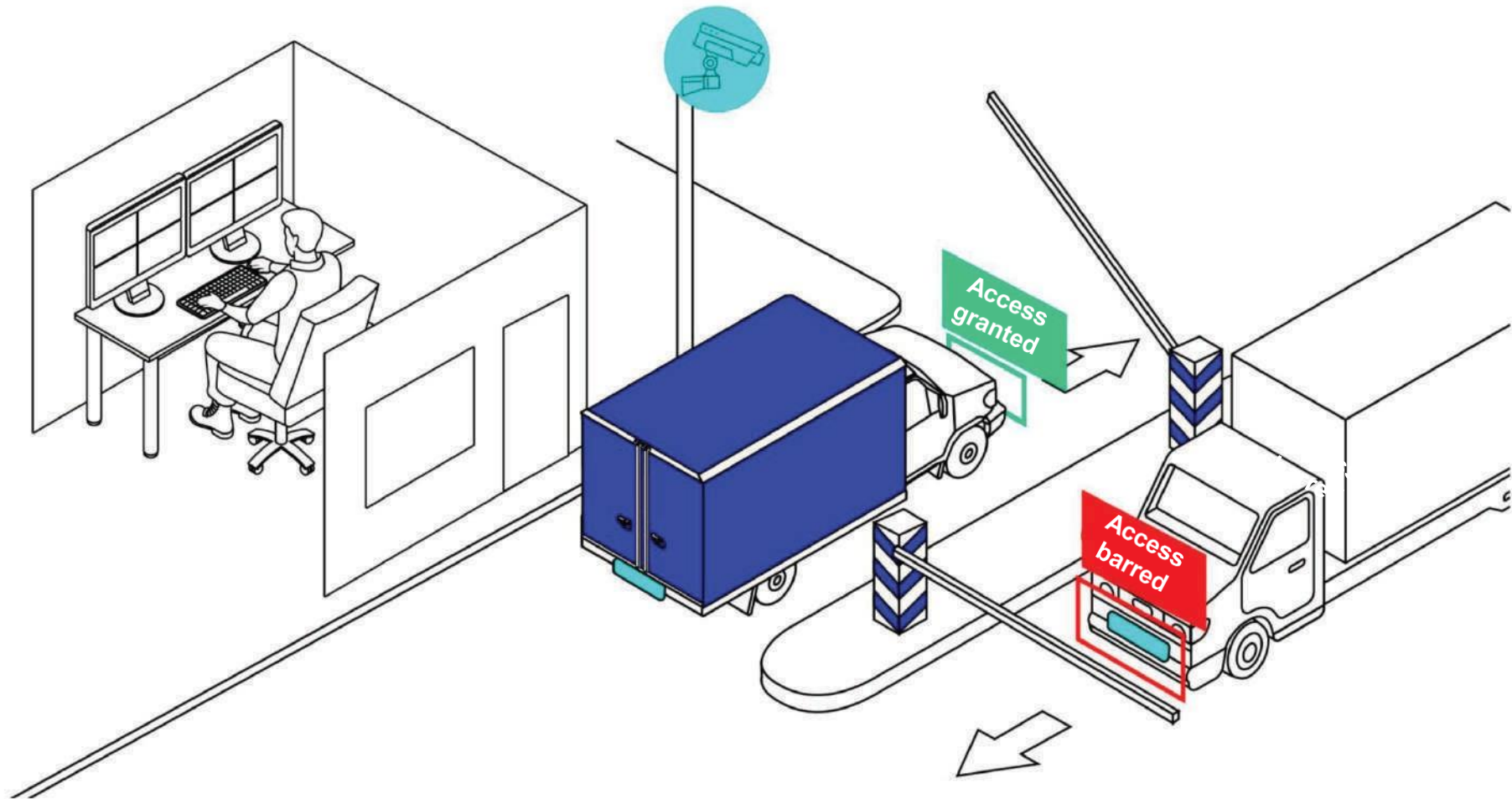
Monitor the movement of goods in the warehouse, cut inventory losses

- \* Monitoring the progress of the loading and offloading process
- \* Monitoring the integrity and position of cargo
- \* Monitoring the movement of people in hazardous areas and compliance with safety regulations
- \* Monitoring presence and movements on the site

## TRANSPORT MANAGEMENT

Improve the efficiency of cargo handling operations

- \* Quick access to vehicles for loading and offloading
- \* Automatic opening of the boom barrier during entrance and exit
- \* Counting vehicles and monitoring movement on the site
- \* Monitoring vehicle filling



# Checkpoints

## Tasks solved

- Entry/exit monitoring
- Monitoring the presence of vehicles on the site
- Monitoring and recording the traffic of vehicles on the site
- Report generation

## How we do it

- Video surveillance
  - AutoTRASSIR licence plate recognition
  - Integration with ACS equipment (boom barriers, terminals)
- ✓ TRASSIR NeuroStation video recorders
  - ✓ AutoTRASSIR module with the required number of channels
  - ✓ Suitable cameras from the recommended list

## Routing of Transport on the Site

### Tasks solved

- Monitoring dock loading
- Counting vacant parking bays
- Organising traffic on the site
- Report generation

### How we do it

- Video surveillance
  - Monitoring vacant parking bays
  - Integration with ACS equipment (boom barriers, terminals)
- ✓ TRASSIR NeuroStation video recorders
  - ✓ ActiveDock module with the required number of channels
  - ✓ ActiveParking module with the required number of channels
  - ✓ Suitable cameras from the recommended list

## Advantages

- \* High-quality recognition of 28 licence plate standards
- \* Option to define additional business logic based on body type
- \* Database creation
- \* Search based on given parameters
- \* Black/white and information list support
- \* External and internal list support

### Integration with weight checking

A supplier's truck enters the site using a pass. However, it can leave the site only after undergoing weight checking. This rule is introduced to combat theft: so that the supplier does not take out more goods from the warehouse than required in the documents.

### Integration with accounting systems

- Option to edit information in the TRASSIR database
- Option to connect external lists (ODBC sources)

## Monitoring Staff and Visitors





# Checkpoints on the Site and in the Dock

## Tasks solved

- Handling access for staff and visitors
- Monitoring and restricting access using 'who-where-when' templates, creating proprietary rules
- Monitoring workplace discipline using ACS and a face recognition system, unacceptable crowds in restricted areas, the wearing of masks and uniforms
- Contactless access for staff and visitors during the pandemic
- View reports to prevent future violations

## How we do it

- Monitoring what happens to assets in real-time from anywhere in the world
- Viewing video archives linked to ACS events using convenient search tools
- Setting up multi-factor identification  
Use of the photo and video confirmation of passes
- Constructor of a convenient system of smart notifications

- ✓ TRASSIR NeuroStation video recorders
- ✓ Access control systems
- ✓ Suitable cameras from the recommended list
- ✓ Integration with related equipment

## Advantages

- \* Staff and visitor management
- \* Multi-factor authentication
- \* Easy and quick setting of access levels
- \* Flexible work and access schedules
- \* Staff attendance and discipline reporting
- \* Temperature-based access control
- \* Setting up flexible response to system events
- \* Close interaction with TRASSIR video analytics
- \* Equipment setup and management
- \* Photo/Video identification
- \* Open API
- \* Option to open the door using a mobile application

## Work time tracking

Generating and uploading an attendance report to xls  
Recording disciplinary violations (late arrivals, early departures, absenteeism) based on staff work schedules

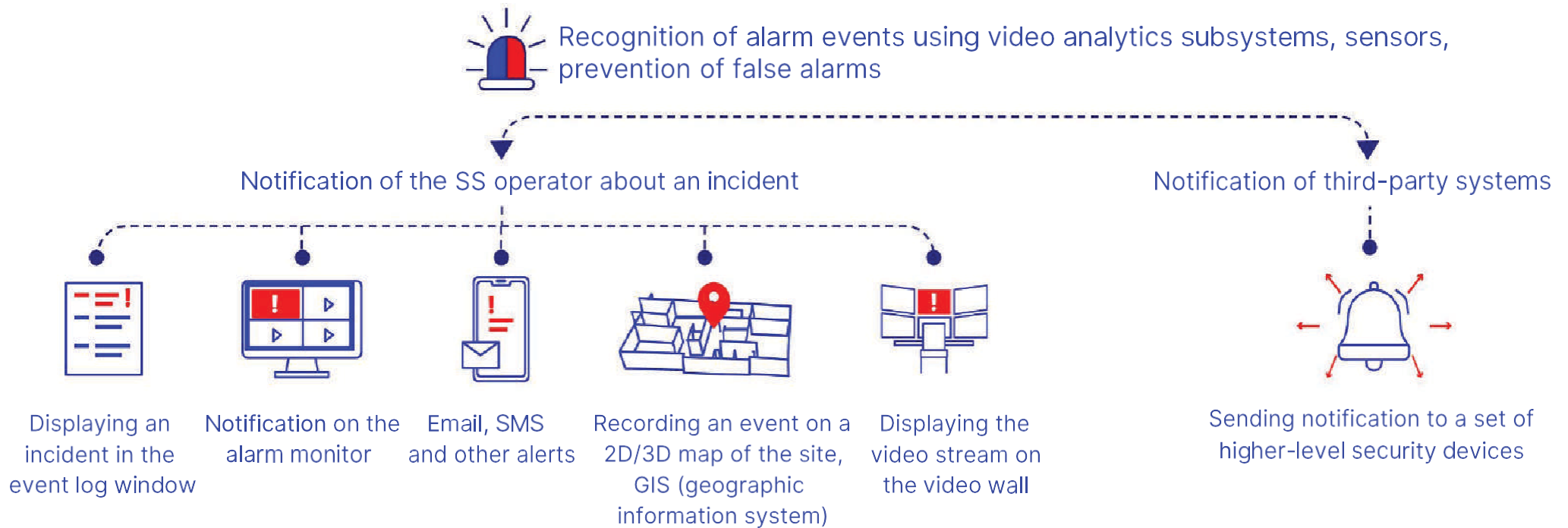
## Working with floor plans

- Display ACS and CCTV devices and their states on the floor plan
- Viewing video from floor plan
- Manual control of ACS devices from the floor plan

# TRASSIR CCTV System =

Smart and efficient interactive monitoring of the site and perimeter of a logistics park or warehouse

## How events and incidents are handled:



# Monitoring the Perimeter of the Site

Respond faster to emergencies, reduce losses and damage

security

## Tasks solved

- Monitoring the movement of suspicious objects
- Organising restricted areas without physical barriers
- Rapid response to emergencies
- Preventing unauthorised access by outsiders

## How we do it

- We integrate with sensors, security systems
  - We support PTZ cameras
  - We trigger alarm monitors and alerts in the event of an intrusion
- ✓ TRASSIR NeuroStation video recorders
  - ✓ Active Stock module with the required number of channels
  - ✓ Suitable cameras from the recommended list
  - ✓ Package of situational analytics modules
  - ✓ Package of service analytics modules

# Monitoring the Perimeter of the Site

Minimising the impact of the human factor

## Basic security package

- Video recorders
- Cameras

## Situational analytics

- Crowding
- Left items
- Trespassing
- Line crossing
- Running person
- Object counter
- Loud sounds
- Smoking

## Service analytics

- Loss of connection and signal from the camera
- Defocusing
- Light flare
- Obstruction of the field of view
- Change of the field of view
- Picture quality

## Loading and Offloading Areas

### Tasks solved

- Monitoring operation progress
- Remote monitoring of the integrity and position of cargo

### How we do it

- Video surveillance
  - Situational analytics
- ✓ TRASSIR Neuro Station video recorders
  - ✓ Active Stock module with the required number of channels
  - ✓ Suitable cameras from the recommended list

# Cargo Picking and Storage Areas

## Tasks solved

- Entrance/exit monitoring
- Reducing errors and fraudulent schemes during assembly
- Differentiation of access rights to various areas
- Monitoring the right selection of goods from storage areas, the order picking process
- Monitoring staff movement
- Monitoring the movement of goods in the warehouse

## How we do it

- Video surveillance
- Situational analytics
- ✓ TRASSIR Neuro Station video recorders
- ✓ Active Stock module with the required number of channels
- ✓ Suitable cameras from the recommended list
- ✓ Package of situational analytics modules

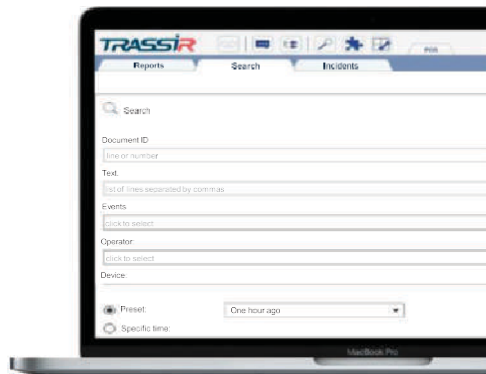
# Managing Operations

Quick problem detection with process tracking and visualisation

Video surveillance is a reliable way of linking data on all events and operations in the warehouse and the time they occur with their video recording. It provides prompt and efficient search for missing goods at the logistics complex

## Identification of an order/goods

The product identification code is entered in the Search section in the Warehouse Operations Monitoring Module: pallet number, cell number, order number, product code or combination of codes



## Video list with the missing goods

Quickly obtaining a list of video clips from all cameras showing operations with the lost goods



## Video analysis to investigate lost goods

Selecting the required type of operations and quickly obtaining video to investigate the loss, which is also an evidence base





# Monitoring Warehouse Operations

## Tasks solved

- We reduce unidentified losses
- We reduce the time spent by the security department viewing the footage when investigating incidents
- We select and view video only from cameras that recorded operations with the goods
- We reduce warehouse/distribution centre losses by quickly finding the culprit
- We optimise the hours paid for warehouse/distribution centre staff (fewer operators are able to handle more incidents)

## How we do it

- Video surveillance
- AutoTRASSIR licence plate recognition
- Integration with ACS, equipment (boom barriers)

- ✓ TRASSIR Neuro Station video recorders
- ✓ Active Stock module with the required number of channels
- ✓ ArUco Detector module
- ✓ Suitable cameras from the recommended list

## Advantages

- \* Significantly faster incident investigation
- \* More incidents investigated
- \* Quick and easy search by events, product or employee
- \* Video categorisation by warehouse activity scenarios
- \* Online viewing and archive search
- \* Single interface for handling video and warehouse operations from WMS
- \* Easy integration with WMS via API
- \* One or more cameras can be used for a facility or surveillance area



## **Adaptive process management**

By using the TRASSIR solution, the logistics park gets access to the full range of security and operation management features available at TRASSIR as well as an advanced security, administration and data control package

## **Interconnectivity**

Link logistics park tasks with the work on their implementation using analytics modules based on centralised video monitoring

## **Coordination of various departments**

Improve interaction between various departments using unified work processes, software and hardware integration

## **Up-to-date analytics**

Track the execution of tasks and guide departments towards success with multipurpose reporting

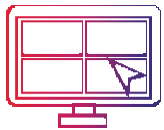
## **Full security**

Thanks to our reliable infrastructure, all work processes will be secure and scalable

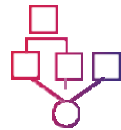


## System Features

Get the powerful features, controls and customisation you need to manage your logistics park processes



Single system for monitoring the entire facility and each area



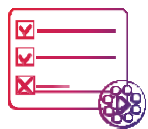
Option to use proprietary scripts



More than 10 analytics plugins



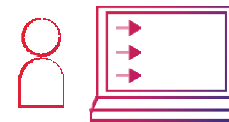
Automatic report generation and forwarding



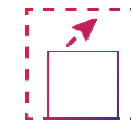
Classification of situation types and scenario launching



Facilitating access to the site for staff and transport



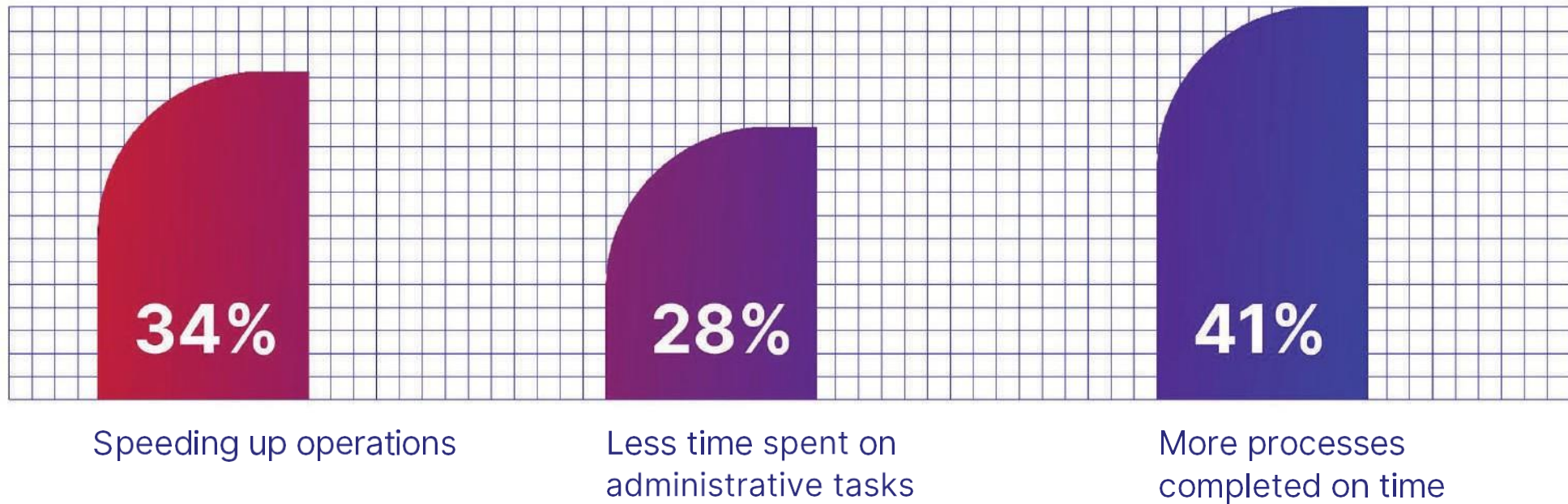
3 types of remote access



System scaling as needed

## Commercial Value of TRASSIR

TRASSIR solutions have shown a positive impact on the efficiency of business processes and the satisfaction of partners with the implementation



## Already Implemented



### Comprehensive solution for a distribution centre

A CCTV system with TRASSIR CLOUD support has been implemented, which includes:

- TRASSIR IP cameras
- TRASSIR video recorders



### Warehouse video surveillance

A CCTV system with TRASSIR CLOUD support has been implemented, which includes:

- TRASSIR IP cameras
- TRASSIR video recorders
- AutoTRASSIR – a licence plate automatic recognition module
- TRASSIR Bolid – integration with Bolid OPS software and Orion Pro workstation ACS

## Already Implemented



### **Comprehensive solution for a network of warehouses**

Perfume, household chemical and consumer goods distributor.  
The CCTV system was set up using

- A server with TRASSIR software installed
- AutoTRASSIR module

Security and monitoring of activities at warehouses with a total area of about 3,000 m<sup>2</sup>

### **Warehouse video surveillance**

Large wholesale warehouse building

The CCTV system was set up using

- TRASSIR IP cameras
- TRASSIR PVR video recorders

The system ensured safety for staff and property as well as protection against theft and man-made incidents



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**With TRASSIR,  
your logistics complex  
is secure and will perform better**