



TRASSIR SOLUTIONS

Building easily a single safety and security complex managed by one interface

Fast and easy design of safety and security systems

- Assistance in choosing equipment to meet design requirements
- Integration with TRASSIRbased video surveillance, fire alarm system, ACS, and intercom

Quick configuration and ease of use

- Flexible configuration of response algorithms for each type of event
- Intuitive and fast search for events in the archive

Individual customization

- Any type of camera customization: from color to form factor
- Extendable system functionality through scripts

Less problems after installation

- Immediate technical support, warranty and post-warranty service
- Fast equipment replacement in case of failure



Integrated business center management through a safety, security, and efficiency monitoring ecosystem

Business center manageability improvement

Management company

- Ensuring access control for employees and visitors
- Controlling the key parameters of the building
- Optimizing spaces to increase income
- Monitoring personnel performance
- Reducing penalties, cutting payroll costs through reducing the number of security guards

Complete control over events

Security service

- Camera viewing
- Quick search in event logs
- · Prompt response to incidents
- Access control for employees, tenants, and visitors

Comfortable environment

Tenants and visitors

- Positive experience in the business center
- Feeling safe



Improving security

Surveillance and recording of events

Capabilities

- Preventing situations that pose danger to employees and visitors (fire, terrorist attacks)
- Conducting surveillance of personal belongings left unattended
- Reducing the risk of theft and unlawful acts

- TRASSIR Fire & Smoke Detector a module detecting fire and smoke
- TRASSIR Neuro Detector a module detecting and classifying objects
- TRASSIR Left Object Detector an intelligent module detecting objects left unattended
- TRASSIR Theft Prevention a module preventing thefts
- TRASSIR Pose Detector an intelligent module detecting unwanted behavior, based on human motion and behavior algorithms





Controlling all movements in the business center

People traffic monitoring

Capabilities

- Counting the total number of visitors
- Indicating the most frequented areas
- Indicating areas where people stayed more often
- Indicating the approximate direction of object movement on the map

Solution TRASSIR Neuro Counter — a module counting visitors passing through a given border TRASSIR Heat Map on Map — a multicamera "heat map" showing people movement in a retail space

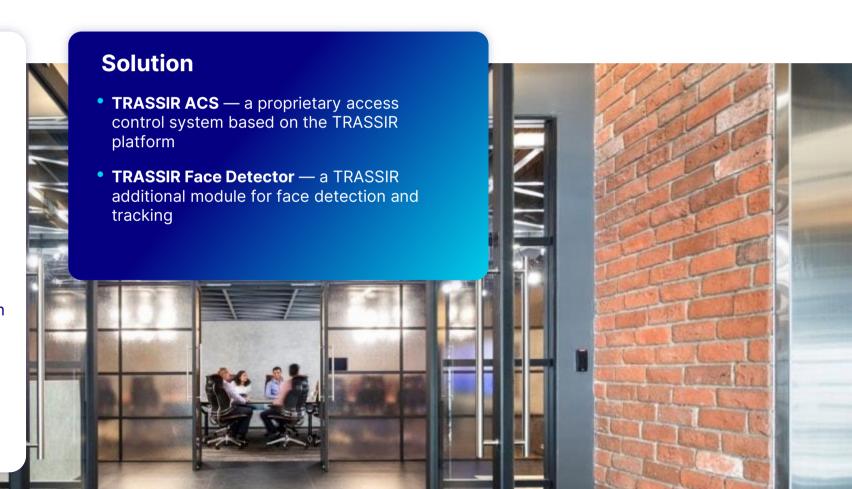


Increasing freedom of movement

Access for tenants

Capabilities

- Access control system with access by card, PIN code, fingerprint, face recognition according to a specified schedule
- Distribution of territory and premises access levels
- Tracking of people movement in the business center territory





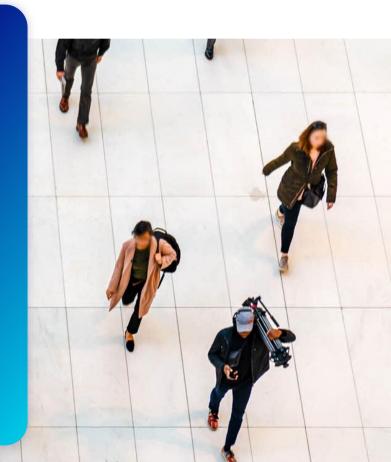
Making the process of issuing visitor passes easier

Access for visitors

Capabilities

- Quick issuance of passes
- Distribution of territory and premises access levels
- Search in the video archive by gender and age
- People movement tracking

- TRASSIR ACS a proprietary access control system based on the TRASSIR platform
- TRASSIR Face Recognition & Face Analytics — a face analysis module used to recognize and search people using a preconfigured database, performing demographic analysis, recognizing race, and identifying face attributes
- TRASSIR Active Search an additional module for quick and easy search in the archive
- TRASSIR Face Detector a TRASSIR additional module for face detection and tracking





Providing quick access to the parking lot

Automatic parking lot access

Capabilities

- Monitoring of vehicle entry/exit to/from the territory of the business center, parking lots, checkpoints
- Automatic barrier opening and closing when vehicles on the list approach it
- Calculation of the number of vacant parking spaces
- Simplified entry to the parking lot for employees
- Prompt incident investigation

- TRASSIR ACS a proprietary access control system based on the TRASSIR platform
- AutoTRASSIR a module recognizing license plates
- TRASSIR Parking a script-module monitoring the number of vehicles and time of their stay in the parking lot
- TRASSIR Active Search an additional module for quick and easy search in the archive





Enhancing control over personnel performance

Service personnel management

Capabilities

- Collecting statistics on the number of employees in certain areas;
- Tracking employee movement around the building;
- Ensuring access control to service rooms.

- TRASSIR Staff Tracker a module measuring personnel (sellers, promoters, or managers in offline retail) performance
- TRASSIR Heat Map on Map a multicamera "heat map" showing people movement in a retail space
- TRASSIR Face Detector a TRASSIR additional module for face detection and tracking
- TRASSIR Face Recognition a face analysis module used to recognize and search people using a pre-configured database





Ensuring compliance with pandemic safety measures

Monitoring of compliance with regulations

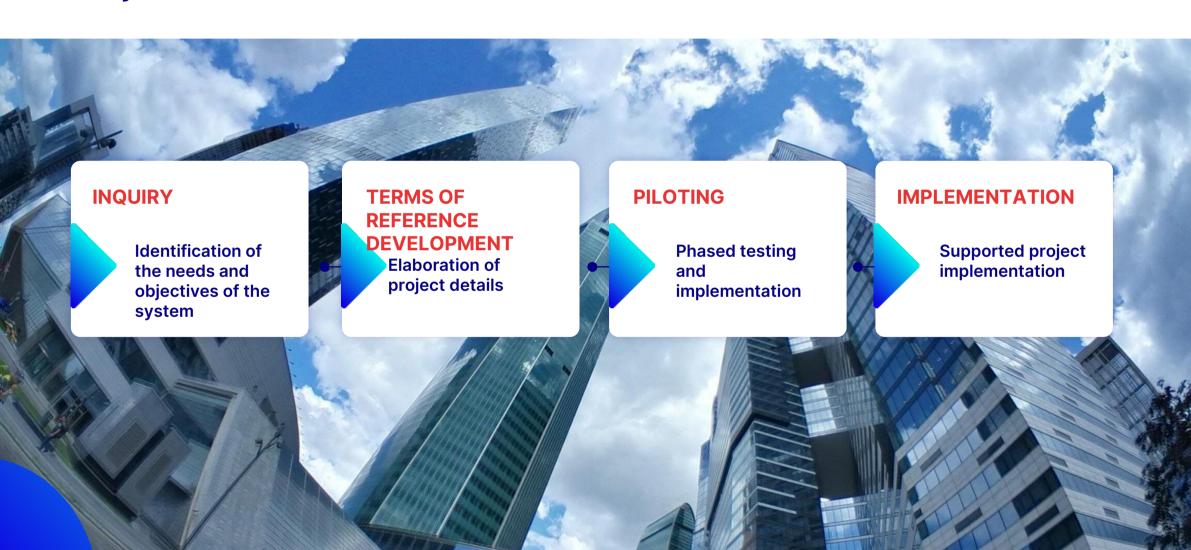
Capabilities

- Identifying violations of social distancing requirements
- Monitoring compliance with face mask wearing requirements
- Reducing the number of penalties for violations

- TRASSIR Social Distance Detector a social distance detector
- TRASSIR Face Mask Detector a module monitoring face mask wearing in public places



Project milestones



5,000+

TRASSIR's loyal customers worldwide





















































Mercury Tower

A unique elite building, which repeatedly won the International Property Awards, the equivalent of the Oscar in the world of real estate and architecture:

 Best Real Estate in the World; Best Office Project in Europe; Best Multifunctional Complex in Europe; Best Holiday Project in Europe.

On 75 floors of the building, offices, apartments, shopping and recreational areas, and a parking lot are located.



Video surveillance in the industry

Unique properties require safety and security systems with performance close to perfect.

The high level of service as well as safety and security creates the added value of real estate.



Project tasks

With an increase in potential threats, it became necessary to update the equipment: expand its functionality and implement video analytics solutions for providing parking control, guarding entrances and exits, floors and corridors of the building, organizing access for a limited number of people to specified territories, protecting crowded areas; ensure synchronization with the existing ACS / fire alarm system and integration with the Single Data Center



Solution

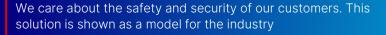
More than 1,000 licensed TRASSIR equipment units were installed:

- AutoTRASSIR a parking control module
- TRASSIR Face Recognition a video module for intelligent face recognition
- TRASSIR IP video cameras
- Synchronization with the existing ACS and fire alarm system
- Integration with the Single Data Center

Effect

Newly integrated intelligent modules provide complete control over the territory of the business center, from the parking lot to the private areas, and minimize the number of negative incidents. The costs for personnel and maintenance were optimized due to a single workplace and database. To ensure safety and security control, just one or two employees are required.

Safety and security are ensured at the highest level corresponding to the facility status.









Chizhov Gallery Shopping and **Entertainment Center**

The largest shopping, entertainment, and business center in Voronezh. A single complex including the 26-story Business Center (B+ class) with an area of 14,000 \mbox{m}^2 and the 8-level Chizhov Gallery Center with a total area of 180,000 $\mbox{m}^2.$



Video surveillance in the industry

Being a public place with heavy people traffic, the shopping center is exposed to unlawful acts: terrorist attacks, acts of vandalism, theft incidents, fire setting, etc. Ensuring safety and security is a key condition for its functioning



Project tasks

- Prevent intruders from entering the facility, ensure control of incoming vehicles and access control of employees.
- Prevent acts of vandalism, terrorist attacks, theft incidents, and other non-routine situations as well as heavy traffic.



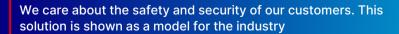
Solution

We introduced a video surveillance system with TRASSIR CLOUD support, including the following:

- TRASSIR IP cameras
- TRASSIR video recorders
- AutoTRASSIR a module automatically recognizing license plates
- TRASSIR Bolid integration with Bolid Orion Pro Workstation, interaction with the fire alarm system and ACS
- TRASSIR SIMT a multifunctional motion detector

Effect

Due to the video surveillance system, all violations are detected to be counteracted. A very high level of personnel and visitors' safety is ensured. The equipment was installed in 2015. Since then, no complaints have been received. The Customer highly appreciated the functionality of the video surveillance system.









Storing Group of Companies, NEBOPLAZA Business Center

Commercial management and maintenance of shopping and office centers; delivery of goods from abroad. Construction of social facilities and industrial buildings.

We care about the safety and security of our customers. This solution is shown as a model for the industry



Video surveillance in the industry

Priority tasks: ensure security of the territory and perimeter, prevent theft and damage to equipment, ensure compliance with safety regulations by personnel, and monitor discipline.

Effect

The obsolete equipment and analog video surveillance system were upgraded. Security issues in the territory of the shopping center and around it were solved due to the TRASSIR video surveillance system installed.

Ease of operation, server reliability, functionality of TRASSIR software, and the quality of IP cameras met the expectations of the management, security service, and IT department completely. The shopping center management is satisfied with the price and quality of software and equipment. It was decided to implement all subsequent projects based on TRASSIR software and equipment



Project tasks

- Upgrade of the obsolete analog video surveillance system using IP cameras as well as TRASSIR software and servers;
- 24/7 continuous monitoring in shopping centers, ensuring security;
- Continuous archiving with data stored for at least 30 days;
- Video analytics (visitor traffic analysis);



- TRASSIR NeuroStation video server;
- TRASSIR IP cameras;
- ActiveSearch a system for interactive search in the archive, driven by metadata;
- TRASSIR Face Recognition a face recognition module;
- TRASSIR Object Left Detector an intelligent module detecting objects left unattended.



