

SMART AUTHORIZATION &  
CONTROL SYSTEM

# DEEP CONTROL



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Inside**

# DEEP CONTROL FACE



FACE  
RECOGNITION  
SYSTEM

Face recognition system - **DEEP CONTROL FACE** is developed on the basis of neural networks and is designed to increase the efficiency and level of automation in places of access control, as well as in smart control systems, retail and other areas which are related to human activities.

The system works with video streams and images from various initial sources and can recognize faces at an angle of up to 35 degrees.

The main features of the solution are the speed and accuracy of recognition. In two-factor mode **DEEP CONTROL FACE** recognizes faces in real time in 300 milliseconds with 99% accuracy.

The system is endowed with a multi-platform web-based user interface that fully functions on various operating systems (OS: Windows, Linux, Mac OS, iOS, Android).



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# TWO-FACTOR AUTHORIZATION, ACS MODE

In order to address increased security issues at access control points **DEEP CONTROL FACE** is fully adapted to work in the access control system. It works with video streams of ordinary IP cameras.

## FEATURES:

- Automatic authorization and permission
- Permission by the operator in manual mode
- Self-learning of the base during the working process
- Increased recognition accuracy when filling out more than one photo of a person
- Configurable number of views and face capture when passing through the turnstile
- Customizable face viewing area on the video stream
- Convenient web interface for setup and operation
- Ability to work with already installed access control and management systems (ACS)

## SPHERES OF APPLICATION:

- Shopping centers
- Factories and industrial facilities
- Critical infrastructure (nuclear, hydro, heat, power plants)
- Airports and stations
- Government agencies
- Offices
- Private properties



# SINGLE-FACTOR IDENTIFICATION MODE

For more accurate identification **DEEP CONTROL FACE** can be used in the mode of single-factor facial identification, while analyzing data from one or more video streams. The solution allows you to reduce time and improve the safety, as well as accuracy and efficiency of ongoing processes.

## FEATURES:

- Authorization of the face using multiple cameras or a stereo camera (RGB-D)
- Permission by the operator in manual mode
- Self-learning of the base during the working process
- Increased recognition accuracy when filling out more than one photo of a person
- Configurable number of views and face capture when passing through the turnstile
- Customizable face viewing area on the video stream
- Convenient web interface for setup and operation

## SPHERES OF APPLICATION:

- Smart terminals
- Private properties
- Airports and train stations
- Offices





# SEARCH OF FACES BASED ON VIDEO ARCHIVE

**DEEP CONTROL** FACE raises the safety and efficiency of processes to a new level. It makes possible conducting an interactive search on faces in the video archive.

## FEATURES:

- Search on faces among staff
- Search on faces by a given image
- Processing stream from video files, working with NVR streams, processing from IP cameras
- Indexing faces in processed video streams
- Customizable face viewing area on video stream
- Convenient web interface for setup and operation

## SPHERES OF APPLICATION:

- Shopping centers
- Factories and industrial facilities
- Critical infrastructure (nuclear, hydro, heat, power plants)
- Airports and stations
- Government agencies
- Offices
- Private properties



# DEEP CONTROL ACS



ACCESS  
CONTROL  
& MANAGEMENT  
SYSTEM

Access control and management system **DEEP CONTROL ACS** contains the whole range of tasks and business flows which are necessary for working with personnel in the field of automated access management and security. The system allows you to keep electronic cards of employees, create work schedules, calculate the time spent by an employee in a particular area of the enterprise and perform zone control with flexible and customizable access rights.

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# WORK WITH STAFF

The cornerstone of the **DEEP CONTROL** ACS system is the work with an employee card. All the necessary tools are brought together for working with staff and the flow of information.

## FEATURES:

- Dynamic user system with customizable access rights
- Flexible organizational structure
- Input and administration of employees, editing of status, admissions, additional information and documents
- Data archiving
- Complex synchronization of server data if there are remote objects in the system (for example: subsidiaries)
- Maintaining a time sheet and building work schedules
- Dynamic generation and output of reports
- Convenient web interface for setup and operation

## SPHERES OF APPLICATION:

- Shopping centers
- Factories and industrial facilities
- Critical infrastructure (nuclear, hydro, heat, power plants)
- Airports and stations
- Government agencies
- Offices



# ZONE CONTROL

Zone control in **DEEP CONTROL** ACS allows you to solve security problems at places with complex multi-level structures. It also improves accuracy and prevents double-pass attempts.

## FEATURES:

- Creating and editing of access zones
- Flexible structure of nested zones
- Customizable access rights for employees
- Warning system for unauthorized access attempts
- Dynamic path construction for each employee and guests of the enterprise
- Convenient web interface setup and operation

## SPHERES OF APPLICATION:

- Shopping centers
- Factories and industrial facilities
- Critical infrastructure (nuclear, hydro, heat, power plants)
- Airports and stations
- Government agencies
- Offices





# DEEP CONTROL AUTO

TRANSPORT  
RECOGNITION  
SYSTEM



Transport recognition system - **DEEP CONTROL AUTO** is developed on the basis of neural networks, which increases its accuracy and speed of recognition of machine characteristics when processing video streams, at the same time using significantly small computing resources. **DEEP CONTROL AUTO** is designed to facilitate and speed up the collection of statistics on traffic flows based on collected and processed data in real time along with increasing the accuracy and efficiency of decisions.

The system consists of two main modules - "Machine Recognition" and "Number Recognition".



Machine recognition: the module recognizes the zone, the type and the color of vehicles from the video stream, and can also track machines in the camera visibility range. It helps to determine the number of vehicles, the presence of traffic jams, accidents and other data in real time.

Number recognition: the module recognizes the car from the video stream, after which it identifies and recognizes the number of each car. It also recognizes car numbers with a partial presence of the car in the frame. It can work in combination with access control systems that give territory entrance permit based on vehicle numbers.

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# ZONE MODE

**DEEP CONTROL AUTO** - has a full-fledged subsystem of automated control and admission of vehicles for a controlled territory. The subsystem is easy to integrate and can work in conjunction with third-party access control systems.

## FEATURES:

- Recognition of the vehicle number
- Recognition of the type and color of the vehicle
- Automatic authorization and permission
- Permission by the operator in manual mode
- Maintaining a white and black list
- Customizable area for viewing the number and transport on the video stream
- Searching for a vehicle by characteristics
- Archiving data on travel (number, image, time, etc. characteristics)
- Dynamic generation and output of reports
- Convenient web interface setup and operation

## SPHERES OF APPLICATION:

- Shopping centers
- Airports and stations
- Critical infrastructure (nuclear, hydro, heat, power plants)
- Government agencies
- Offices





# INTEGRATED OPERATION MODE WITH WEIGHT SYSTEM

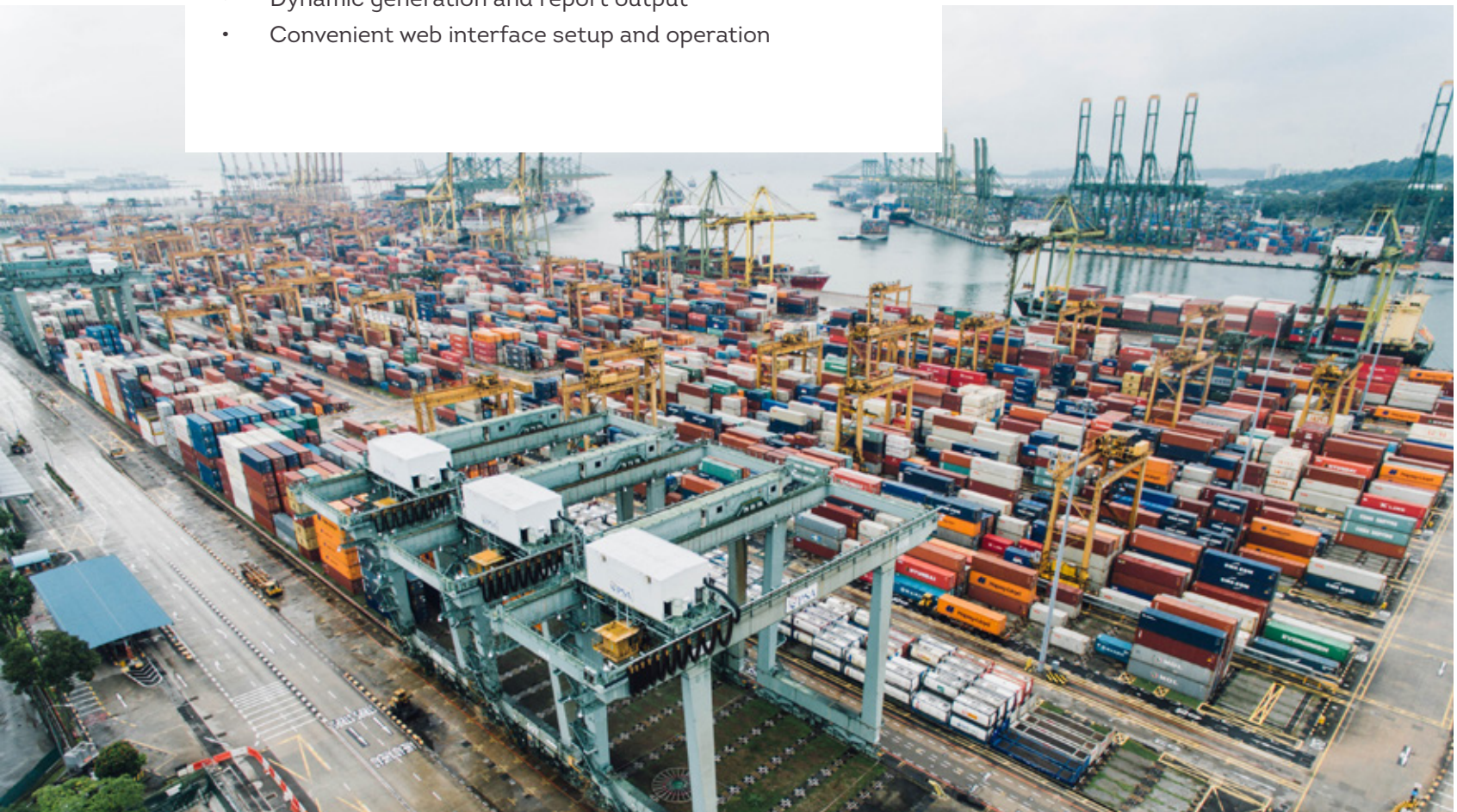
**DEEP CONTROL AUTO** - has a developed solution with the ability to integrate with electronic scales for organizing automated weight control of vehicles.

## FEATURES:

- Recognition of vehicle number
- Reading data from electronic scales
- Saving data on weighings (weight, number, image, time and other characteristics)
- Customizable viewing area on the video stream
- Searching for a vehicle from the archive by characteristics
- Dynamic generation and report output
- Convenient web interface setup and operation

## SPHERES OF APPLICATIONS:

- Airports and stations
- Ports
- Factories and industrial facilities
- Government agencies

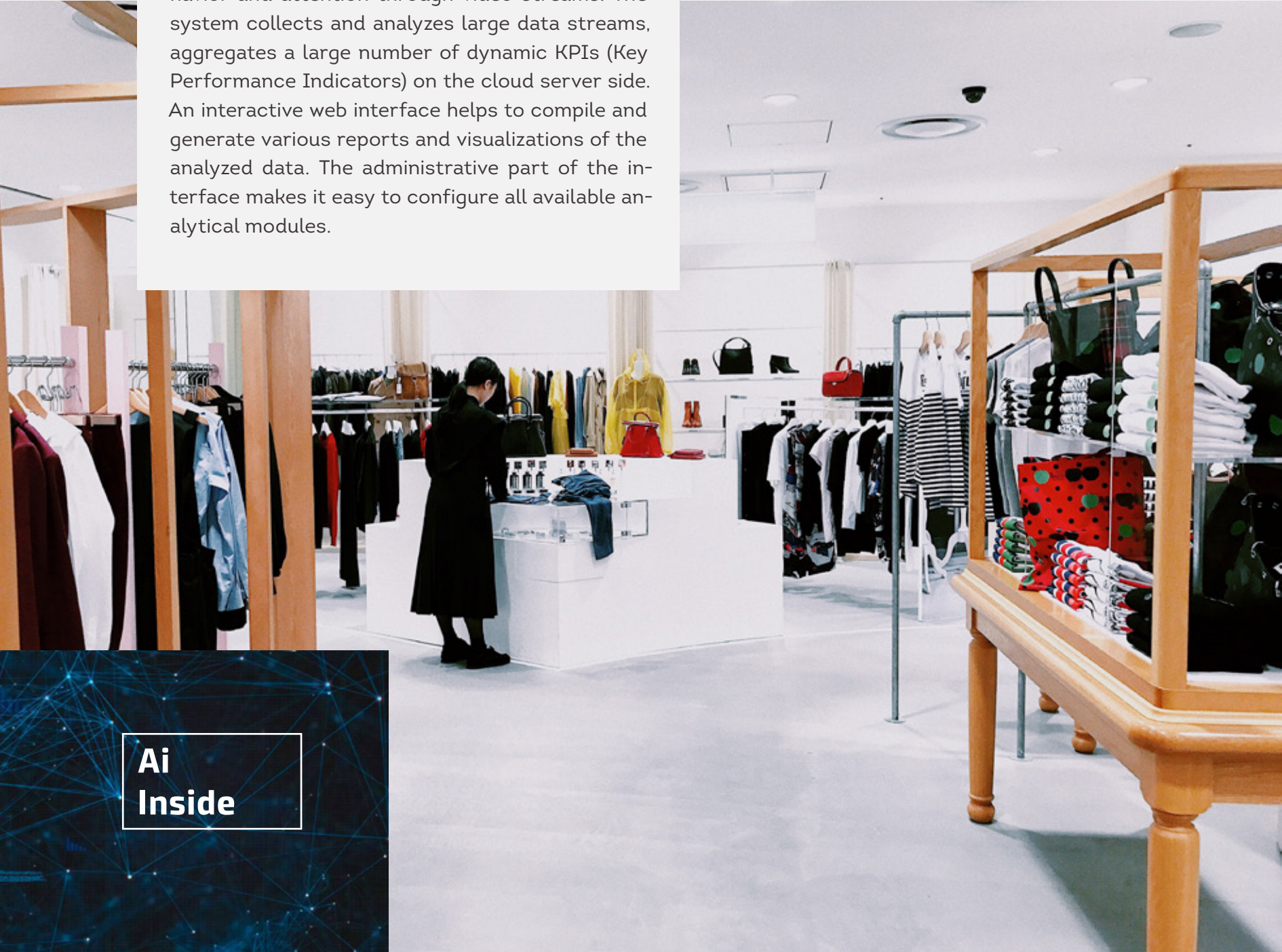




# DEEP CONTROL RETAIL

RETAIL  
ANALYTICS  
SYSTEM

Retail analytics system - **DEEP CONTROL RETAIL** is a set of solutions which is performing definition of objects and people in the stores and malls, as well as tracking their movement, behavior and attention through video streams. The system collects and analyzes large data streams, aggregates a large number of dynamic KPIs (Key Performance Indicators) on the cloud server side. An interactive web interface helps to compile and generate various reports and visualizations of the analyzed data. The administrative part of the interface makes it easy to configure all available analytical modules.





# STAND ANALYTICS

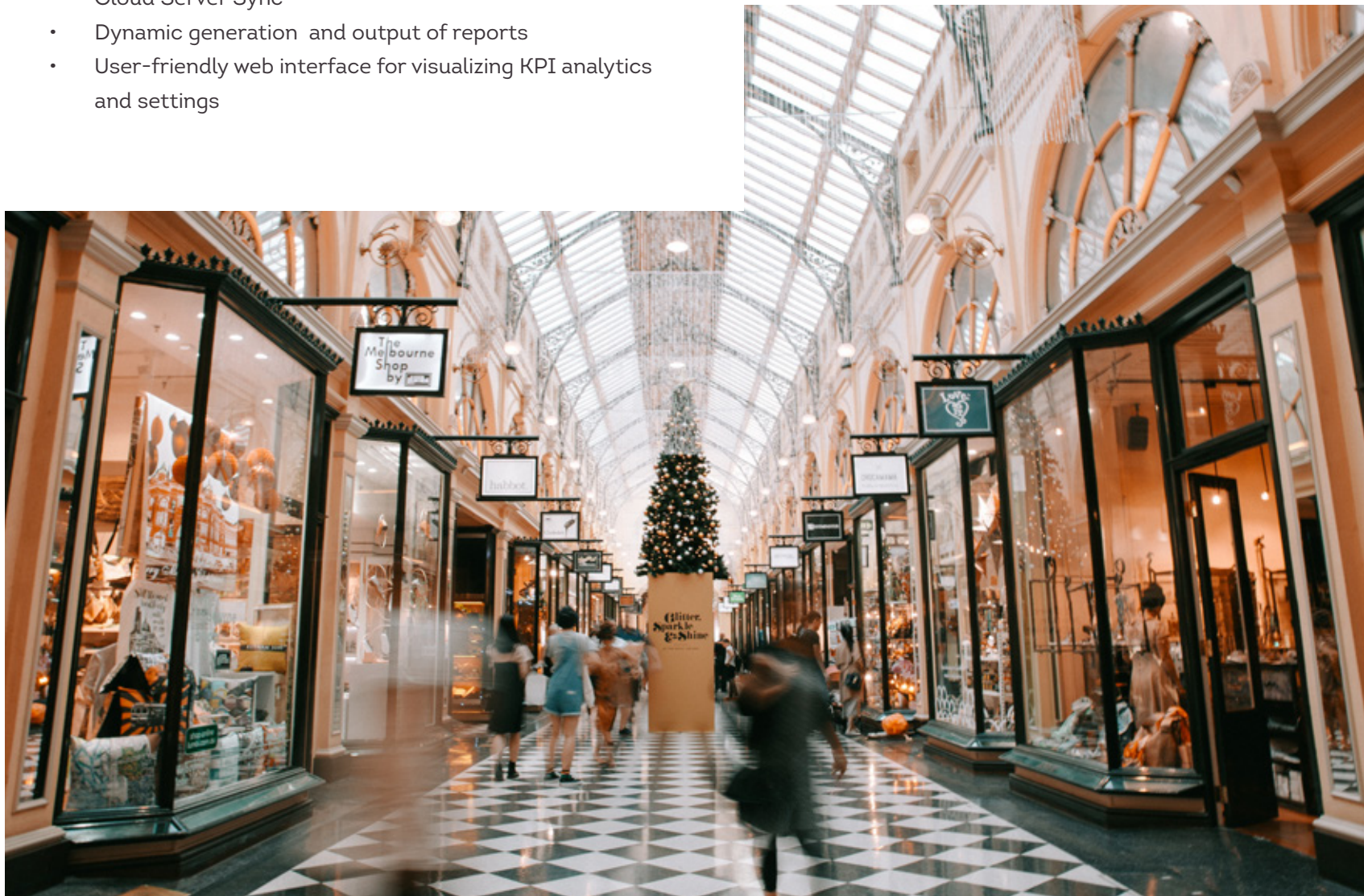
Analytics of static and video stands is an integrated solution that works in real time and analyzes the characteristics of people in the visibility area of the stand, as well as their count, gender, age and intensity of attention to advertising content or products displayed on the stand.

## FEATURES:

- People detection,
- Detection of gender and age
- Determining a person's attention to the stand
- Data archiving
- Cloud Server Sync
- Dynamic generation and output of reports
- User-friendly web interface for visualizing KPI analytics and settings

## SPHERES OF APPLICATIONS:

- Shopping centers
- Airports and train stations
- Stadiums



**innoverse**

**info@innoverse.tech**  
**www.innoverse.tech**