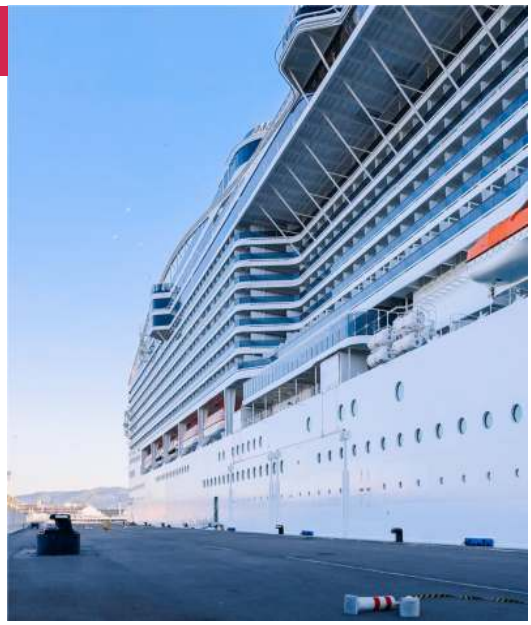
RECFACES

FACIAL RECOGNITION USE CASES IN THE TRANSPORTATION INDUSTRY

Airports **Metro Stations** **Sea Ports**

The transportation industry faces significant security challenges, including theft, vandalism, and unauthorized access to sensitive areas. Outdated surveillance technologies and inadequate monitoring systems can leave facilities vulnerable to breaches. Additionally, the increasing threat of cyberattacks on operational systems further complicates security efforts, underscoring the need for advanced technology like **facial recognition.**



TRANSPORTATION — AIRPORT

SCENARIO 1: ENHANCING AIRPORT SECURITY WITH FACIAL RECOGNITION

Airports are strategic objects of transport infrastructure, where not only internal aviation security services, but also law enforcement agencies are responsible for **maintaining order** and **ensuring passenger safety.** These facilities are extensively equipped with video surveillance systems, including mandatory cameras placed at all entrances and exits, and other key areas of the airport.

Real-time identification

1. As passengers move through the airport, facial recognition software integrated with video surveillance cameras identifies individuals in real time **in just 1 second.**
2. Security personnel have access to databases containing profiles of wanted persons and dangerous criminals.
3. If a match with a flagged individual on a **stop list** is detected, an alert is immediately sent to security teams, allowing for swift action.

Incident investigation

- In the event of a security incident, the facial recognition software enables security personnel to quickly search for individuals of interest in the archived database across multiple cameras. This eliminates the need to manually review hours of recorded footage.
- The system provides to security teams comprehensive information about the suspect's activities, including the frequency of their visits, areas accessed within the facility, and can map out routes of their movements.

This capability significantly **reduces investigation time** and **enhances response effectiveness.**

SCENARIO 2: STREAMLINING CHECK-IN WITH FACIAL RECOGNITION TECHNOLOGY

Passenger check-in process

1. A passenger approaches the check-in desk, which has a facial recognition terminal.
2. The device scans the face and compares it with the profiles stored in the database.
3. After successful recognition, the ACS sends a request to access the record of the event both in the facial recognition software and the ACS itself.
4. Once the identity is confirmed, the passenger hands over their luggage and proceeds to the boarding area.

Profile synchronization for real-time verification

- Facial recognition solution supports a large database of users' profiles, including passenger ID documents, employee badges, photographs, and names.
- User data is synchronized with the facial recognition system in real — time through adapters directly integrated with ACS.

This seamless synchronization provides **accurate and efficient access control** while adapting to the rapidly changing needs of the transport environment.

By ensuring smooth and secure verification, it **enhances passenger experience and operational efficiency.**

Data processing and secure storage

- **Each access attempt,** whether successful or not, **is logged** by the facial biometric software solution.
- The data includes timestamps, entry and exit points, and user identification information. All data is stored in a centralized secure repository, ensuring robust management of access logs and identity-related information.

This streamlined approach **supports** both **operational security** and **compliance** with data governance requirements.

SCENARIO 3: ENHANCING PASSENGER EXPERIENCE IN THE BOARDING AREA WITH FACIAL RECOGNITION TECHNOLOGY

Personalized passenger journey at boarding

1. In the boarding area, passengers are greeted by another biometric terminal equipped with facial recognition software.
2. The device again determines and confirms each passenger's identity and also **displays personalized information on the screen,** such as the flight number, departure time, and boarding gate.

Notification rules configured in the notification builder can be applied to everyone or only to those who are on a specially created list, such as VIP travelers or flagged individuals.

Group notifications for efficient communication

Thanks to a flexibly configurable algorithm, the facial recognition solution allows to organize and structure a **simultaneous greeting for several passengers** at the same time and also **quickly send notifications to a large group of people.**

This capability is particularly useful for boarding announcements, gate changes or emergency alerts, enabling real-time communication with a vast number of passengers.

Flexible setting

- The solution provides flexible configuration of display scenarios based on the place and device of identification.
- A dedicated tool allows operators to associate one or more screens or digital signage surfaces with cameras, ensuring targeted and contextually appropriate messaging.

This flexibility is invaluable for distributed systems in busy transportation hubs, **simplifying the process of displaying essential updates** while enhancing the passenger experience.

TRANSPORTATION — METRO STATION

SCENARIO 1: ENHANCING PASSENGER SAFETY AND SECURITY

The metro is an essential part of the transport infrastructure. Billions of people around the world use it every day. Cameras at metro stations are already widely utilized to enhance security. But integrating facial recognition technology in subways can make it even more secure and efficient, benefiting the overall experience and well-being of passengers.

Instant recognition for rapid threat detection

- On the premises of the metro station, passengers are being monitored by a video surveillance camera with an integrated facial recognition system.
- If the passenger's face matches any on the **stop list,** the security service is instantly alerted and can respond quickly to the threat.

Prompt response to incidents and their investigation

The subway stations struggle with challenges such as unauthorized individuals accessing restricted areas, leading to safety concerns and increased cases of theft. Traditional security measures like CCTV cameras and on-site security personnel, are often insufficient to monitor and respond to incidents in real time.

By implementing facial recognition technology integrated with **Security Information and Event Management (SIEM)** and **Physical Security Information Management (PSIM) systems,** metro control can address these challenges.

1. As commuters enter the station, the facial recognition software scans faces and **matches them against a database** of flagged individuals, including those with prior offenses or restricted access.
2. If an unauthorized person attempts to enter a restricted area, the system **immediately triggers an alert,** allowing security personnel to respond promptly.

The integration of these systems allows for seamless **reporting of incidents** by **linking actions to specific individuals and locations.** In the event of a security breach, the data can be rapidly analyzed to provide authorities with critical information, ensuring a swift investigation and response.

SCENARIO 2: SECURING OPERATIONAL SYSTEMS WITH FACIAL RECOGNITION TECHNOLOGY

One workplace — one employee

Metro stations operate numerous security consoles that monitor live camera feeds, emergency alarms, and passenger assistance systems. Facial recognition technology ensures that only authorized personnel can access these consoles. The software prevents multiple security officers from using the same panel, thus ensuring accountability and preventing unauthorized access to sensitive security systems.

The solution operates in the background, automatically detecting potential security threats, such as multiple logins or unauthorized access attempts.

- Each security officer is enrolled in the facial recognition software through biometric registration. Each console is tagged with a specific role, ensuring **only designated personnel can log in.**
- A security officer logs into the CCTV monitoring console using their biometric profile. If another employee attempts to log into the same console, **the system** flags this as a violation and **blocks access.**
- The supervisor receives an **alert about an unauthorized login attempt.** Then, they can investigate further to determine whether this was a technical issue or a security concern.

Access rights are defined by the security system administrator using the system's **flexible role-based settings.*

TRANSPORTATION — SEAPORT

Security challenges

Ports are a tempting target for criminal networks due to their crucial role in national and regional economies. Therefore, it is essential to develop robust port access control systems and protocols to counter threats such as illegal immigration, smuggling, and unauthorized access. These measures not only enhance port security but also contribute to global efforts to combat organized crime.

SCENARIO 1: ENHANCING PASSENGER PROCESSING WITH FACIAL RECOGNITION TECHNOLOGY

Swift and accurate face identification

Facial biometric solution enriches any Queue Management System and self-service terminals with biometric functions, provides tools to reduce service time, increase customer loyalty and security.

- Using the camera installed on the entrance group, next to the electronic queue terminal or embedded within it, the solution **identifies a passenger within 1 second** by comparing live images to a database of pre-registered profiles.
- Based on configured scenarios, the software transfers relevant information to CRM, SLA, or other integrated systems.
- In self-service terminals, the solution **provides reliable personalized access for services** such as ticket purchasing or electronic service requests, as well as targeted content for passengers.

Contactless throughput

The transit hub introduces a facial recognition software that allows streamline passenger entry without physical interaction.

1. As the passengers approach the entry gates, cameras equipped with advanced facial recognition technology scan their faces and compare them to a secure database.

2. The system **recognizes** valid passengers **in real time** and grants immediate access to the platform or boarding area.

3. With the implementation of the facial recognition software, the transit hub achieves **significantly reduced wait times, improved throughput, and enhanced passenger experience.**

Passengers enjoy a seamless entry experience while high security standards are maintained, ultimately transforming the way individuals navigate the busy transit environment.

SCENARIO 2: OPTIMIZING PORT OPERATIONS WITH FACIAL BIOMETRIC SOFTWARE

Solution workflow

- Biometric solutions are integrated into the seaport's server infrastructure and installed on the operator workstations equipped with web cameras. These workstations support the initial registration of passenger images and verification of identities during critical transactions.
- The facial recognition software seamlessly imports passenger photo and document images from external information systems.
- Operators can also **assign attributes to passenger profiles,** such as categorizing them into a "stop list" for restricted access or a "VIP list" for expedited processing.

Streamlined passenger verification

1. Biometric-enabled workstations are deployed at key checkpoints, including terminal entry, boarding gates, and customs stations. Cameras at these workpoints capture passenger images for initial registration or verification.

2. A commuter approaches a checkpoint and presents their travel documents. The biometric system identifies the passenger by **matching their live image with stored records.**

3. If a discrepancy is found, for example, the passenger is on the "stop list", **the system** immediately flags the issue and **alerts security personnel.**

4. Operators import photo data from external sources, such as customs databases, to verify high-risk individuals flagged in remote systems.

5. VIP passengers are categorized for prioritized handling, ensuring a smoother travel experience.

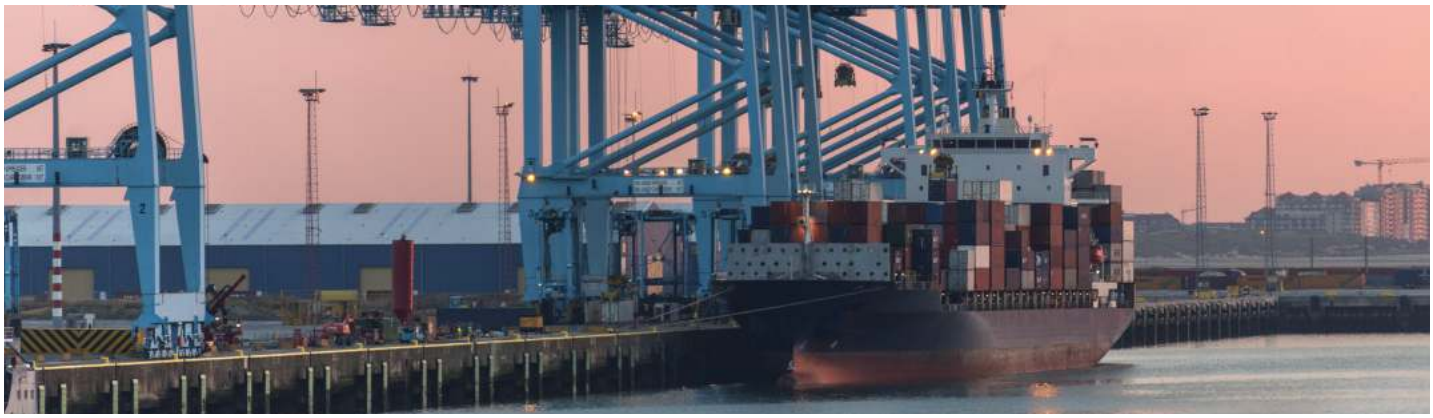
Rapid notification of incidents

1. The notification system in facial recognition software is configured to **automatically send alerts** according to the required set of rules.

2. Notifications can be displayed in the software interface pop-ups, as well as sent through email, SMS or integration with external information systems of the facilities via open API.

3. If fraudulent activity is detected, the facial biometric software sends an instant alert to the security personnel for them **to respond swiftly and investigate the case.**

A seaport manages passenger boarding for ferries and cruise ships while maintaining strict security protocols.



CONTACT US

We are here to help you select a facial biometric software product that is specifically suitable for your transport hub requirements and needs, and to demonstrate its functionality in real time.

sales@recfaces.com

recfaces.com

+ 971 4 5862654

Dubai Internet City Building 3, Dubai, UAE

About RecFaces:

RecFaces is one of the leaders in developing ready-to-use software products with facial recognition functions. RecFaces develops off-the-shelf solutions that help to quickly increase the efficiency of VMS, ACS, as well as ERP, CRM, and time tracking systems. RecFaces' solutions are based on a highly accurate facial recognition algorithm. RecFaces has a range of ready-made integrations with leading security system products, which helps to quickly deploy solutions on any customer equipment. Our software allows businesses to quickly, securely, and accurately identify and verify the identity of employees, customers, and visitors. The quality of RecFaces' off-the-shelf solutions is confirmed by numerous installations worldwide, including the MENA, APAC, and LATAM regions. Together with our global partners, we provide solutions for security, finance, transportation, retail, and other industries, providing free demo versions and training on company products.