SmartFace 5

Making Every Camera Smart

Robert Izak,
BDM & Product Marketing Leader

INNOVATRICS

SmartFace

There are over 1B
cameras
deployed globally

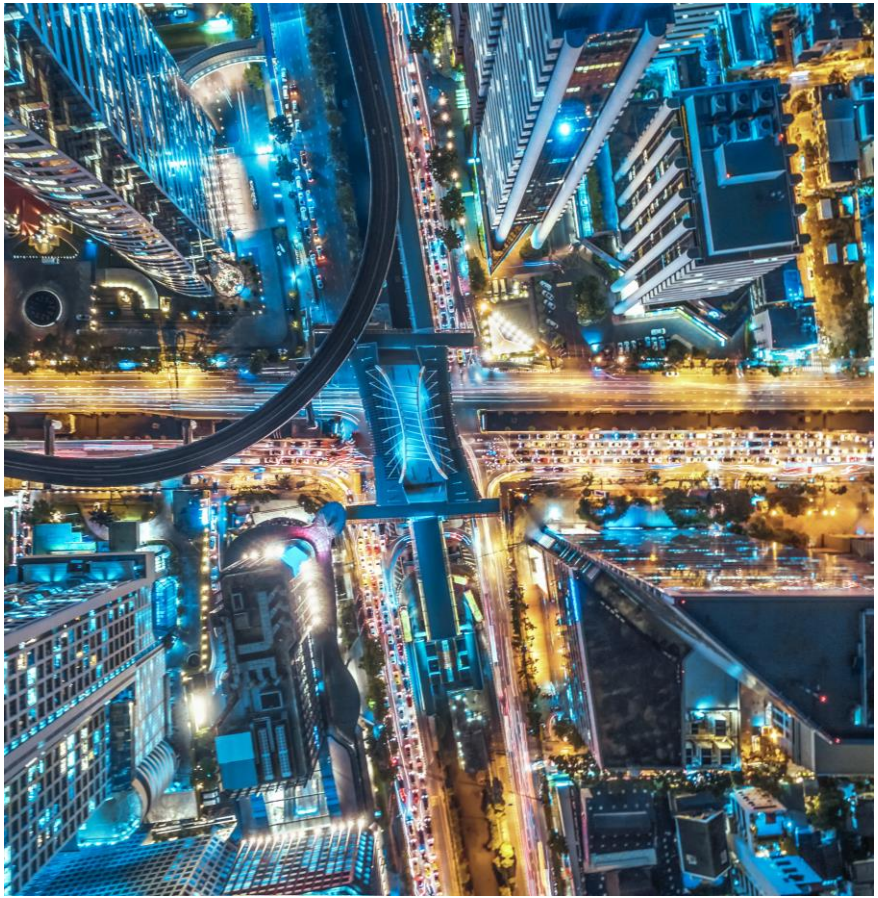
00:01:48:15
cam_03
cam_04
00:00:02:09
00:00:02:09

The SmartFace 5

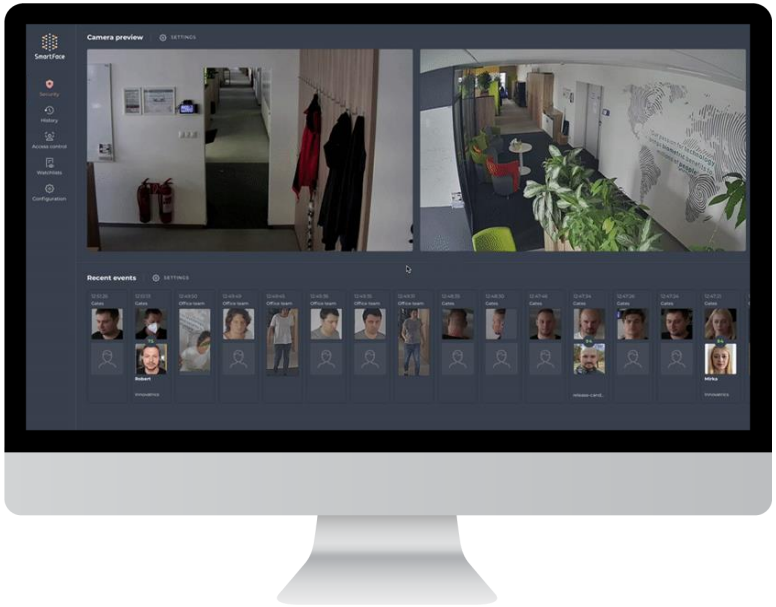
SmartFace

Solving Smart Cities security challenges

Scalable video analytics platform able to process multiple real-time video streams



Preemptive Security



Edge-to-Cloud Architecture

Save server resources and reduce bandwidth requirements

Watchlists and Notifications

Manage multiple watchlists and get real-time notifications

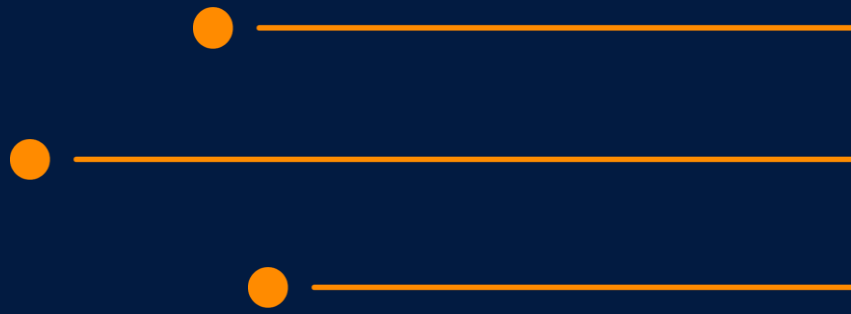
Instant Search & History View

Perform highly accurate searches in history of all detected faces

Rapid Video Investigation

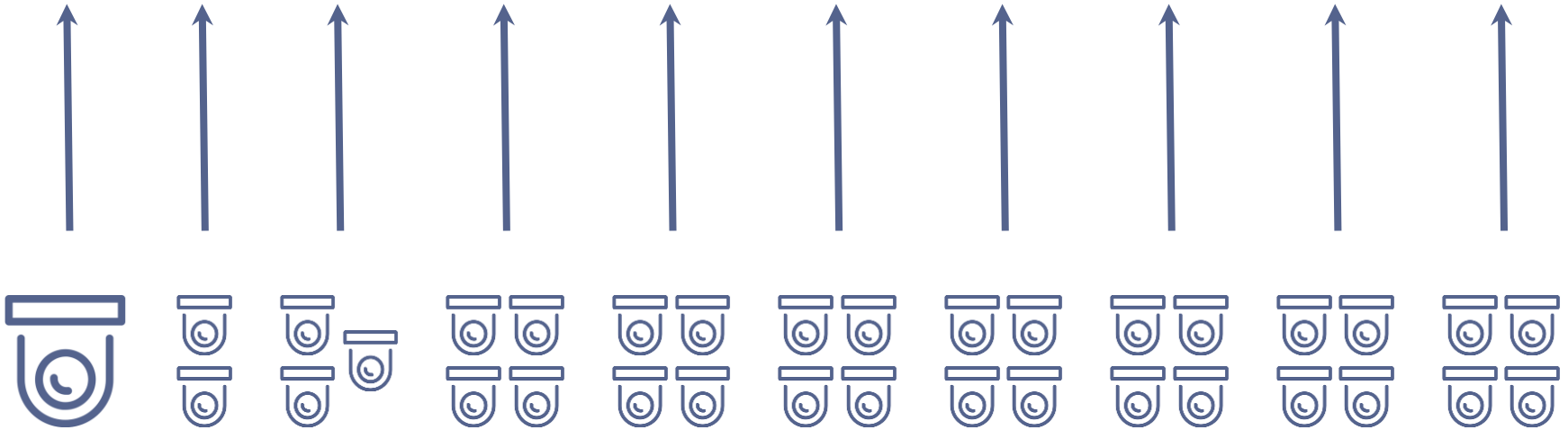
Speed up investigation with processing video files faster than real time

Scalable Edge-to-cloud Architecture

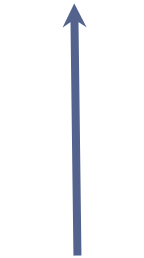


- video decoding
- face detection
- template extraction
- template matching

- video decoding
- face detection
- template extraction
- template matching



- video decoding
- face detection
- template extraction
- template matching



4 Mbit/s

- video decoding
- face detection
- template extraction
- template matching

x, y
female
54

x, y
male
45

100 kb/s

4 Mbit/s

- video decoding
- face detection

- video decoding
- face detection
- template extraction
- template matching

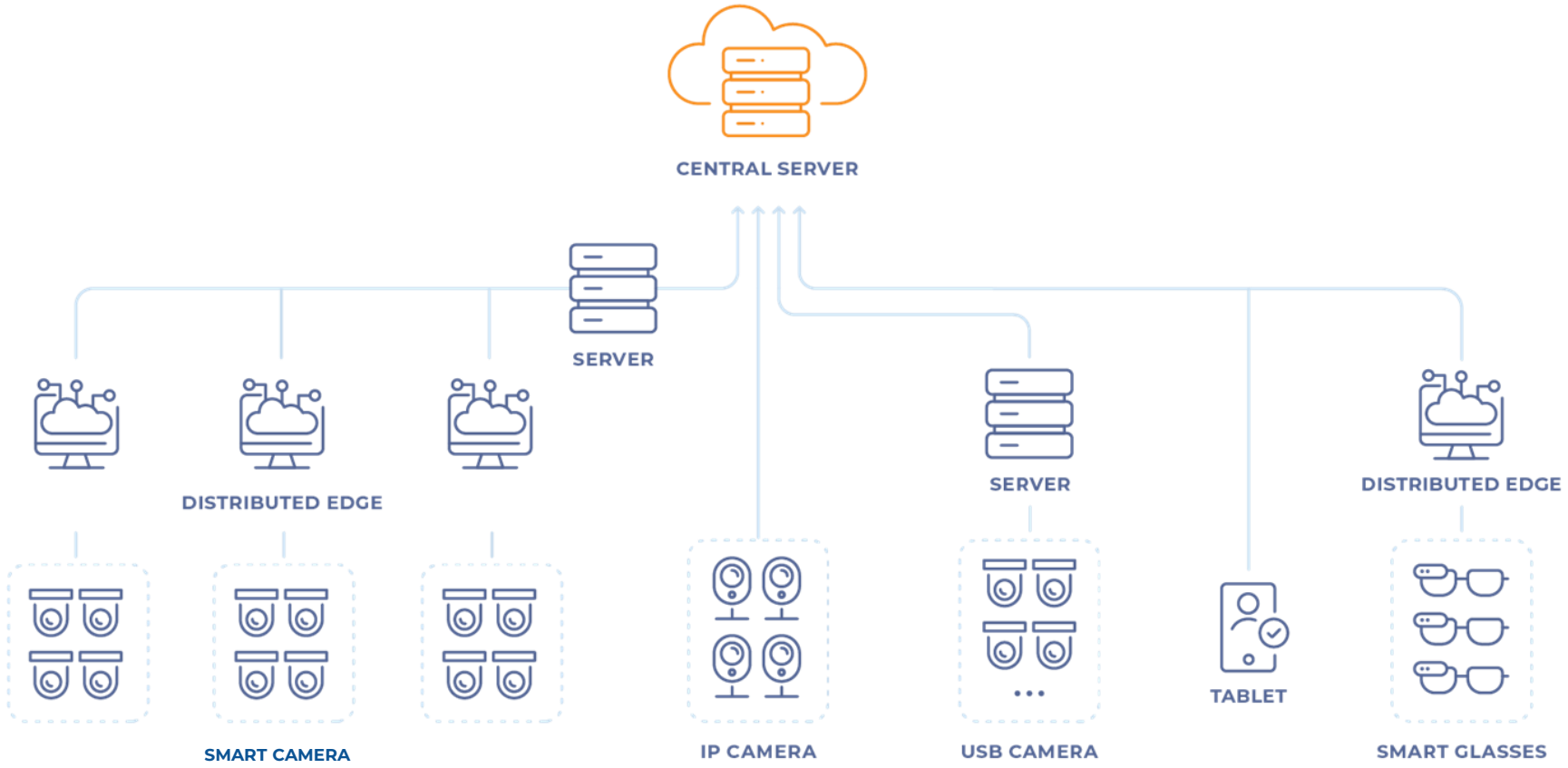
x, y
female
54

x, y
male
45

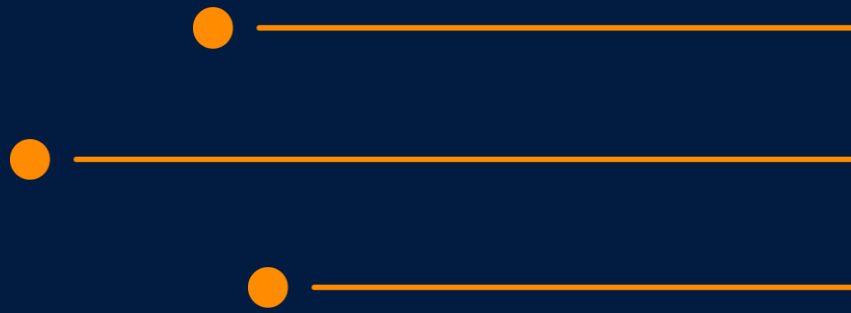
400 kb/s

16 Mbit/s

- video decoding
- face detection

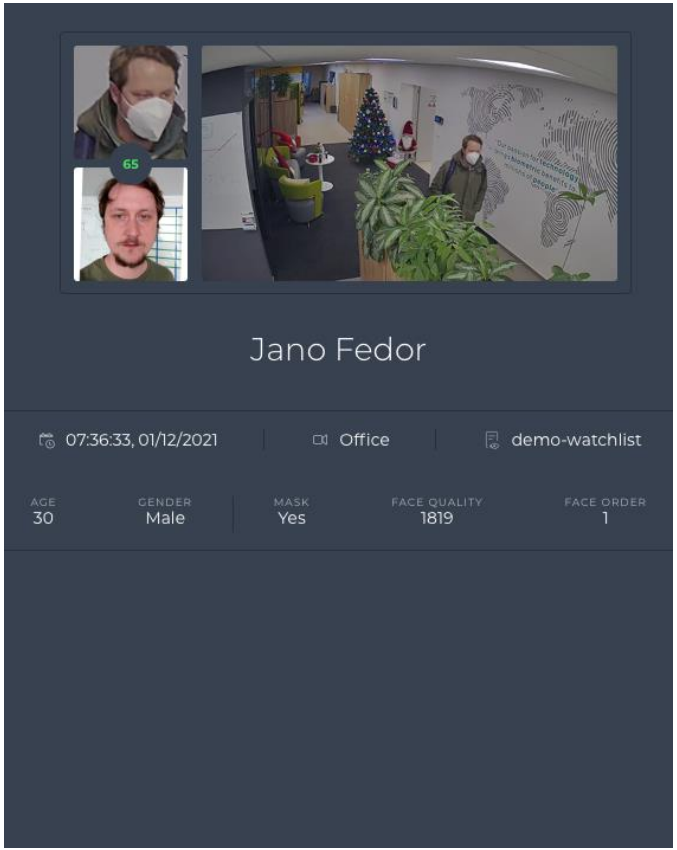

CENTRAL SERVER
SERVER
DISTRIBUTED EDGE
SERVER
DISTRIBUTED EDGE
TABLET
SMART CAMERA
IP CAMERA
USB CAMERA
SMART GLASSES

Watchlists and Notifications



Watchlists and Notifications

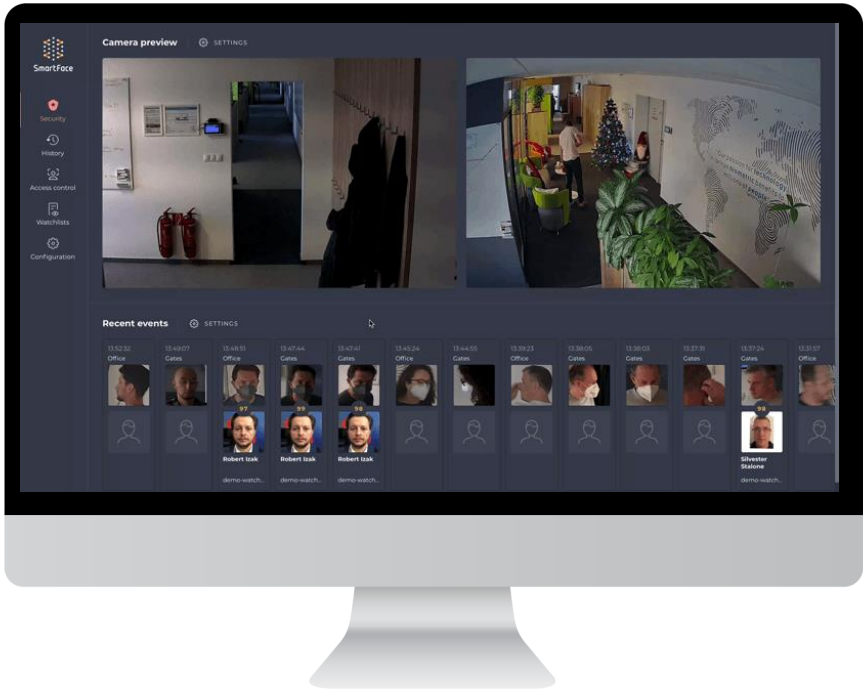
- Detect and track multiple faces in one frame
- Get notifications of a detected and identified face in milliseconds
- Only relevant notifications from chosen cameras
- Pedestrian/Human Body detection
- Accurate identification, even with a face mask or sunglasses on



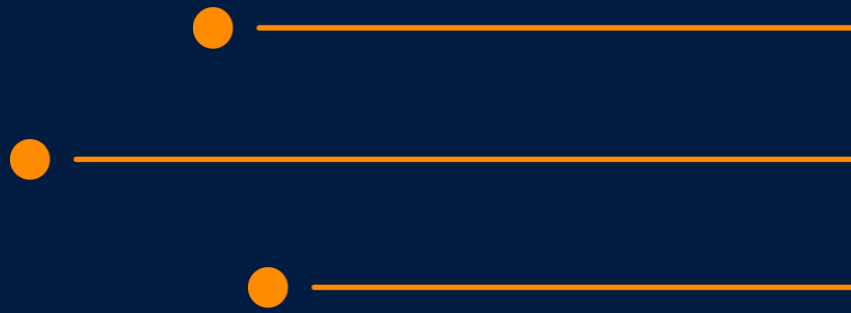
Custom Security Strategy

Display only relevant details

- Select the notification type
- Preview only relevant camera streams
- Custom view per user
- Responsive design supporting various devices



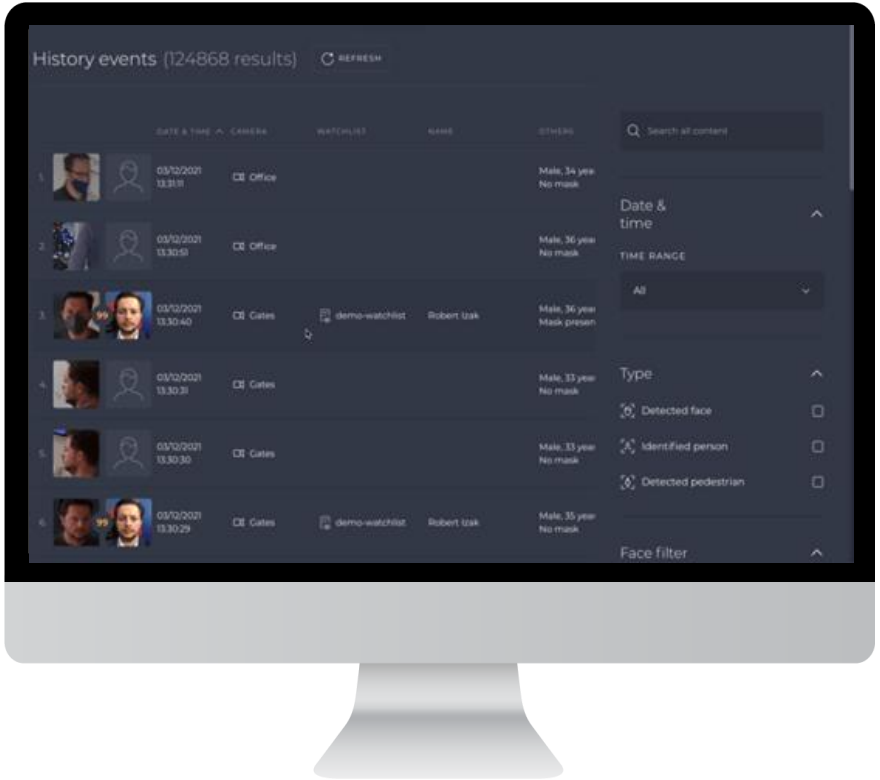
History and Face Search



History Preview

Browsing over the large set of video files

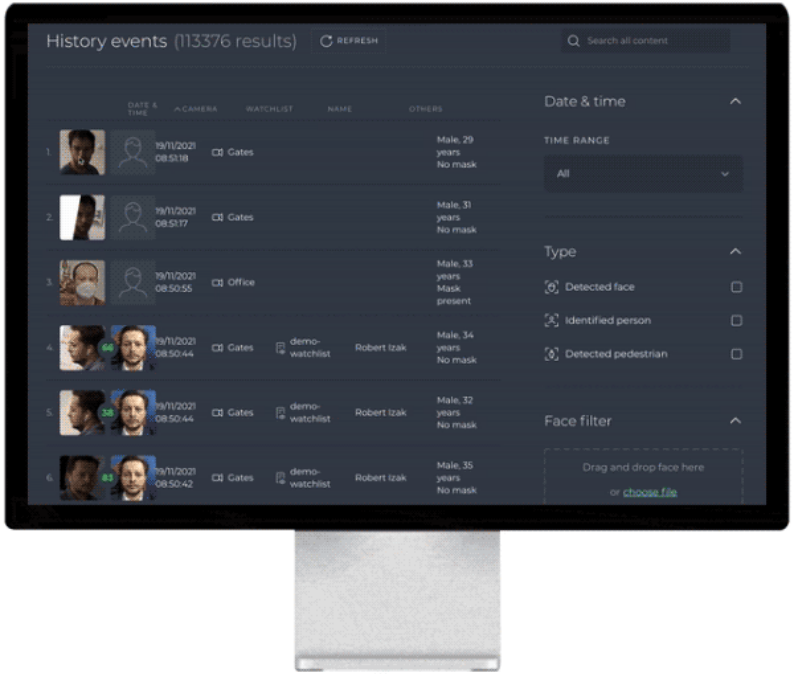
- Search suspect in video footages
- Limit the search for relevant criteria
- Filters according to time, date, position, age or gender



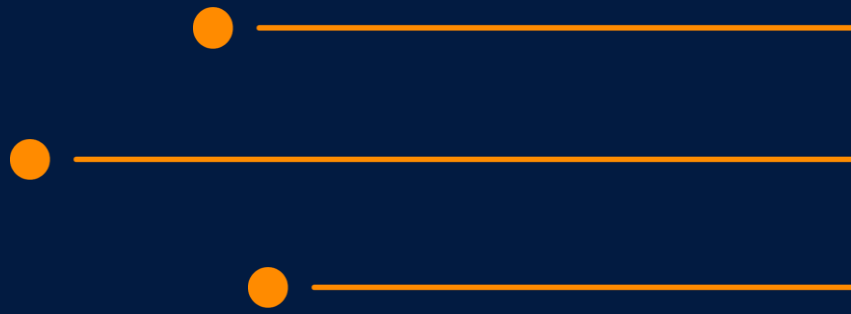
Search Faces by Image

Instant search across all database

- Search individual by partial face image
- Filter the results
- Save hours of manual preview



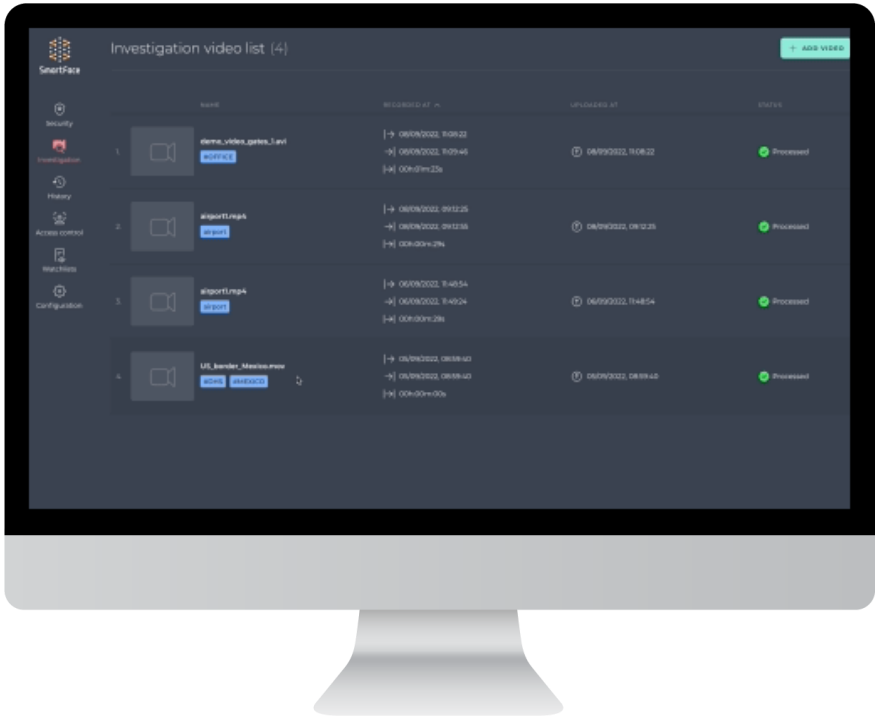
Rapid Video Investigation



Rapid Investigation

Solving the security incidents

- Process multiple offline videos and identify suspects
- Faster than real-time processing
- Browse among detected individuals

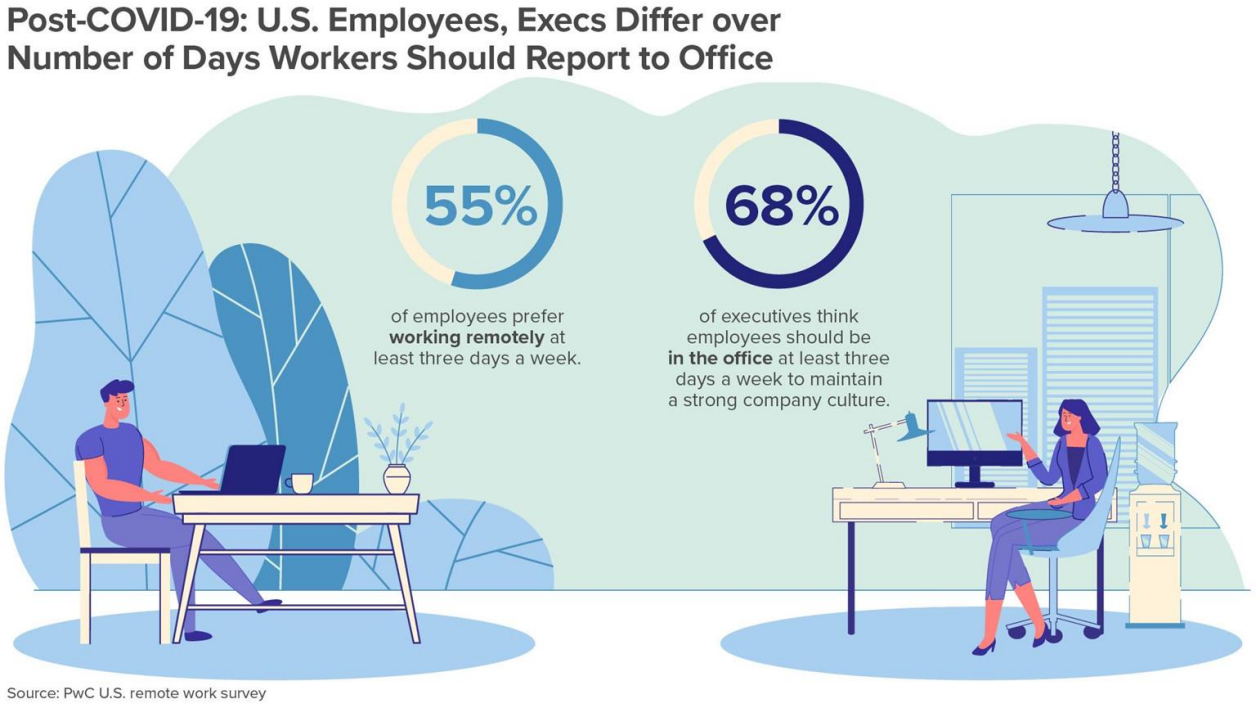


If Work Is Going Remote, Why Is Big Tech Still Building?

Google, Facebook, and others promise more flexibility to work from home. But they're charging ahead with plans for more offices.

A Google building under construction. The company plans to build a new campus in downtown San Jose. PHOTOGRAPH: DAVID PAUL MORRIS/BLOOMBERG/GETTY IMAGES

Hybrid model is preferred by employees and companies



The SmartFace 5

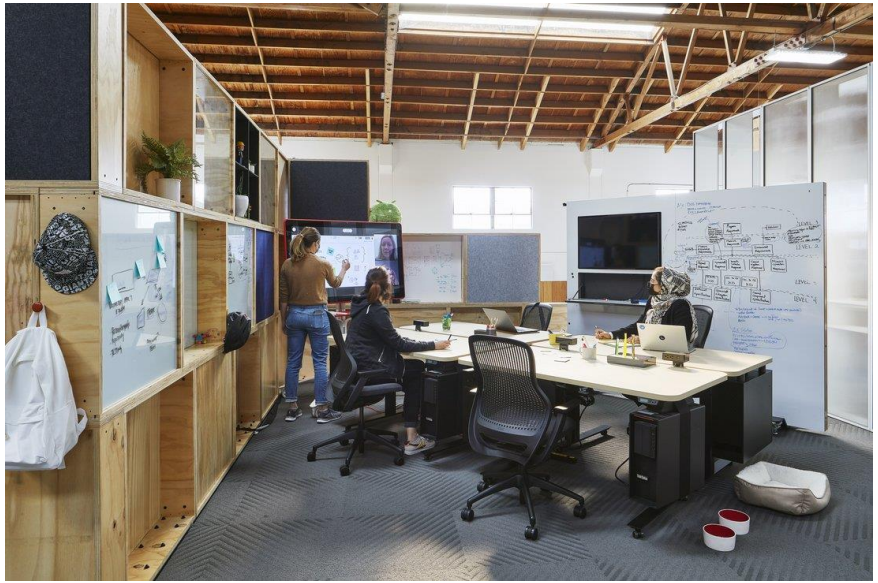
SmartFace

Seamless Access Control for the safe and secure buildings

Contactless biometric Access Control solution for Smart Buildings

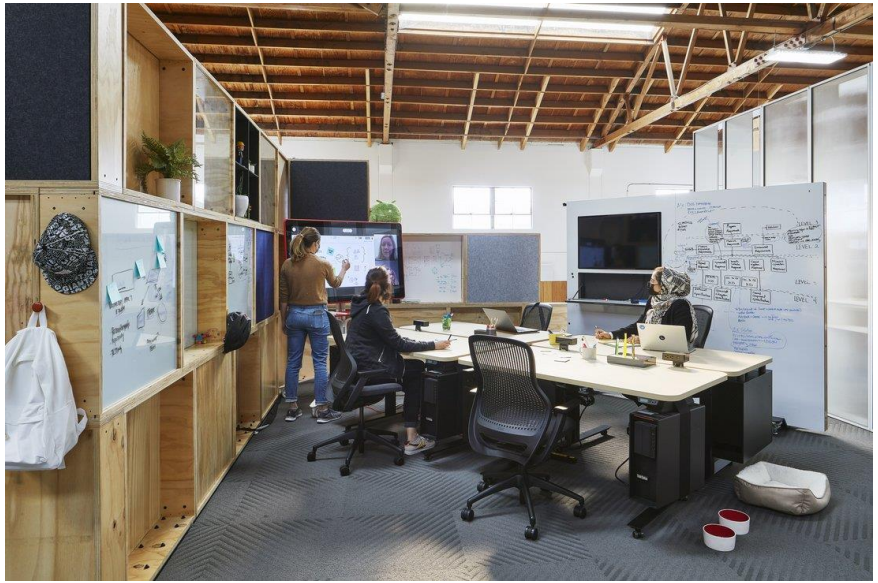
The Purpose of the Office is Changing

- Less desks, more space for work and networking
- Seamless Access & Security
- Home Office Tools for enhanced Security & Attendance tracking
- Touchless Covid compliant environment



New Headaches for Operations and Security

- Accesses violations
- Tailgating & Monitoring
- Covid restrictions fulfillment
- Identity thefts and frauds



Seamless Access Control

Watchlist Autolearn

Gain exceptional accuracy with automatic updates of biometric templates

Passive Liveness Check

Prevent spoofs and distinguish a real face from an image

Enrollment Solutions

Add users to watchlist with remote onboarding

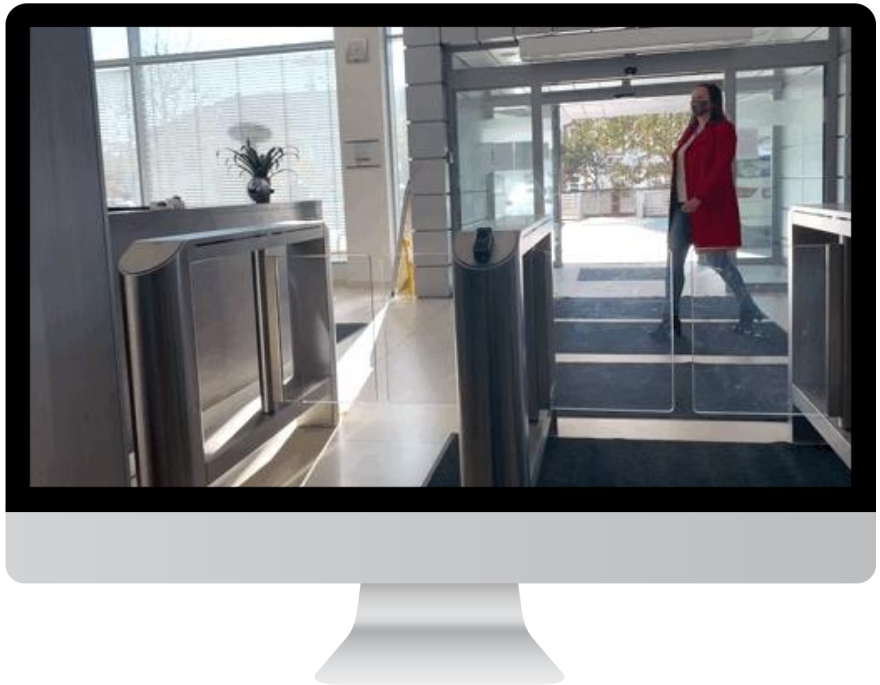
Supporting Existing Infrastructure

Integrate through REST API

Seamless Experience

Seamless Experience

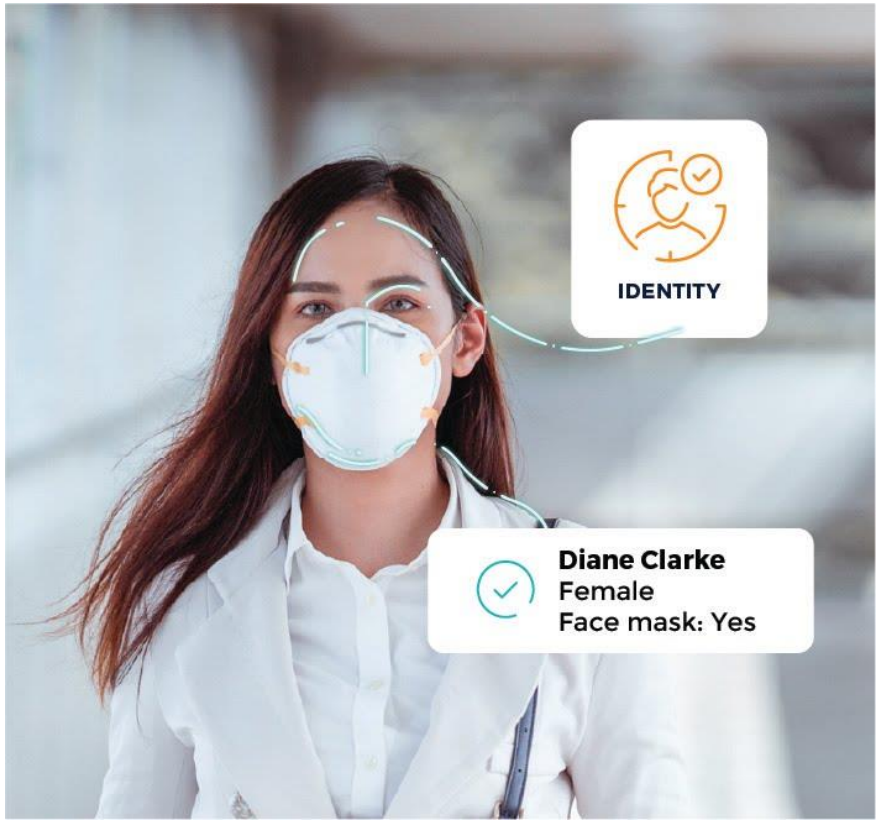
User does not have to interact with any other terminal or system, just seamlessly pass the access point.



Watchlist Autolearn

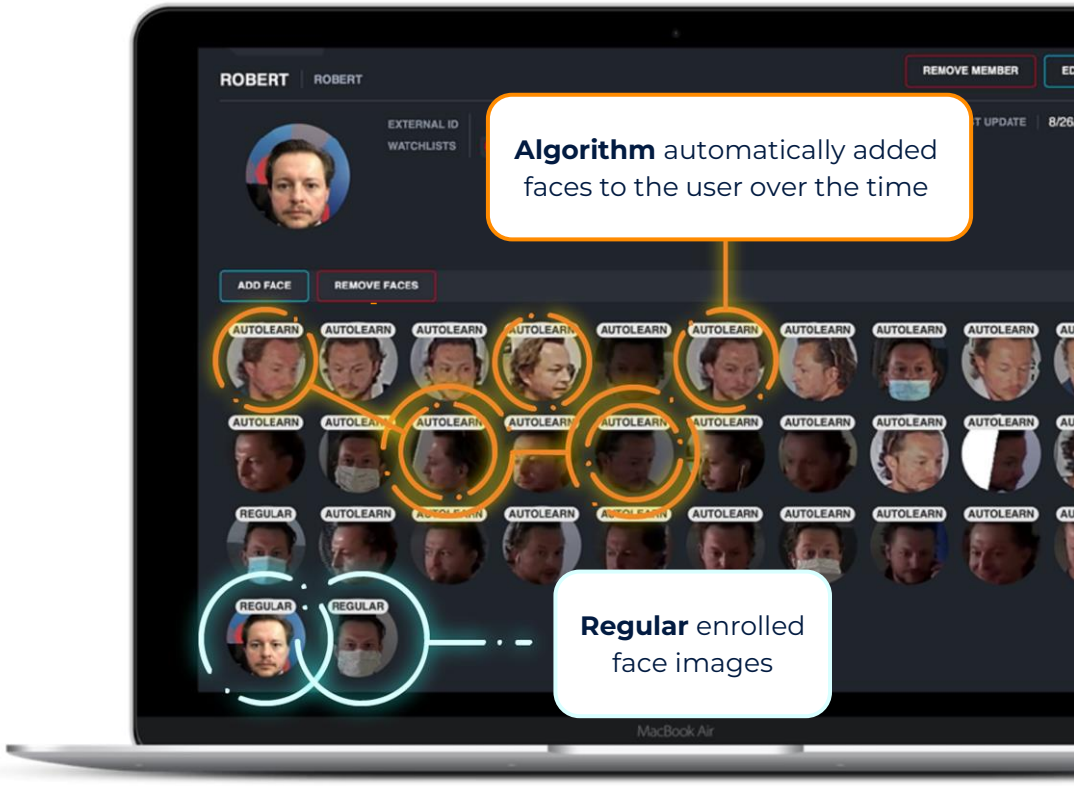
Identify Partially Covered Faces Accurately

- High accuracy with face mask or sunglasses on
- Works in very challenging conditions
- Checks if the face mask is worn properly
- Notifications for access control



Watchlist Autolearn

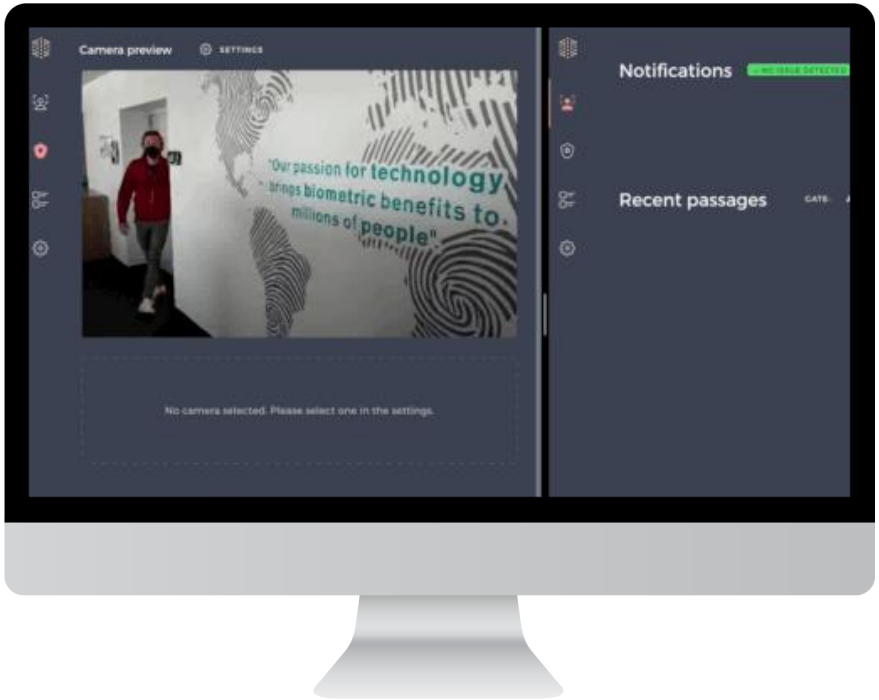
Ensures exceptional accuracy even when the individual's face attributes gradually change over time.



Passive Liveness check

Passive Liveness Detection

- Detect spoofing attempts
- Prevent unauthorized access to premises
- Get real-time notifications
- Save costs on security staff



Full set of tools and components for your seamless access control

Access Registration

User Registration via Mobile Application

Access Controller

Ensuring Seamless Opening of Access Points

Access Station

Dashboard for Your Access Control Personnel

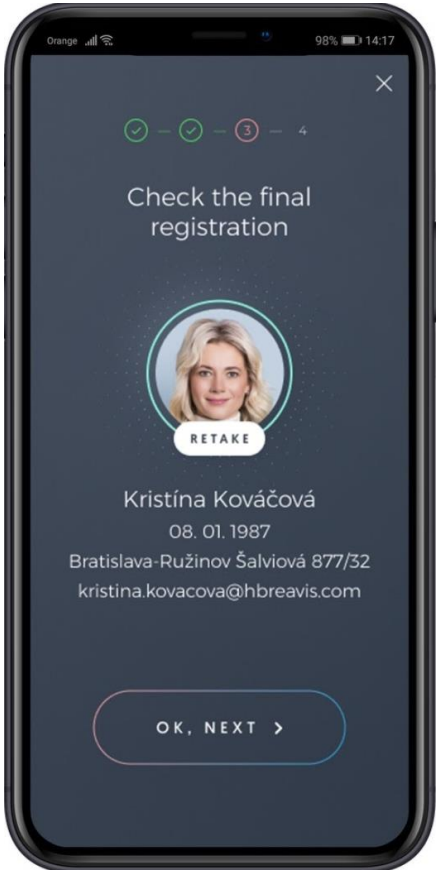
Cloud Matcher

Lightweight Face Matching Service

Access Registration App

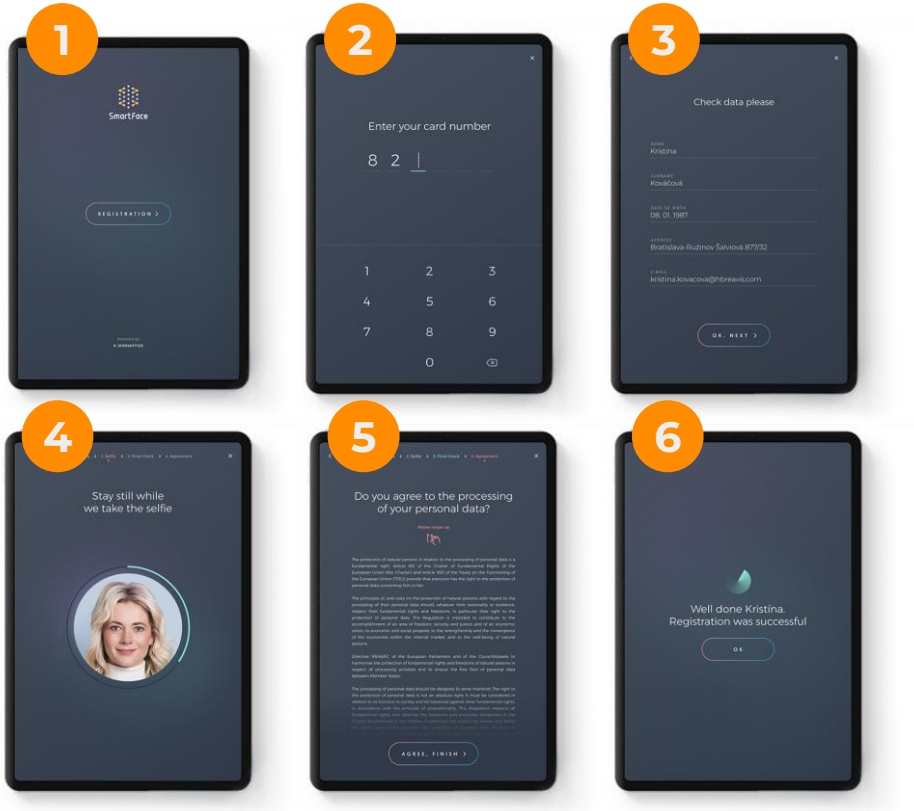
Access Registration App

- Enrolls a new user in less than one minute
- Grants entry permission remotely
- Enables for one-time or temporary access



Enrollment According to the GDPR

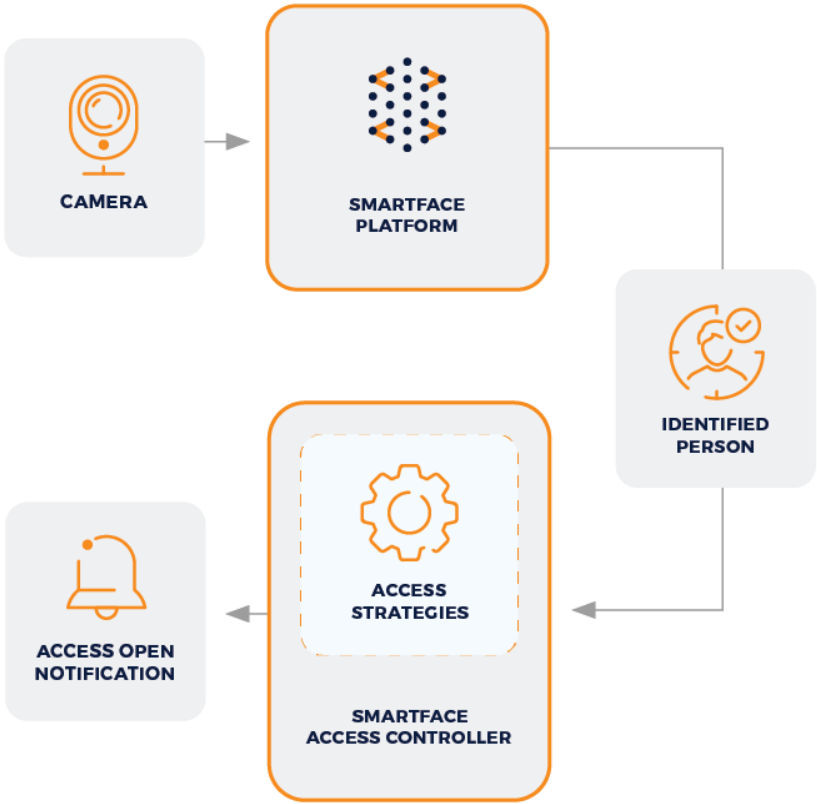
Dedicated enrollment app to collect user's consent for personal data processing.



Access Controller

Access Controller

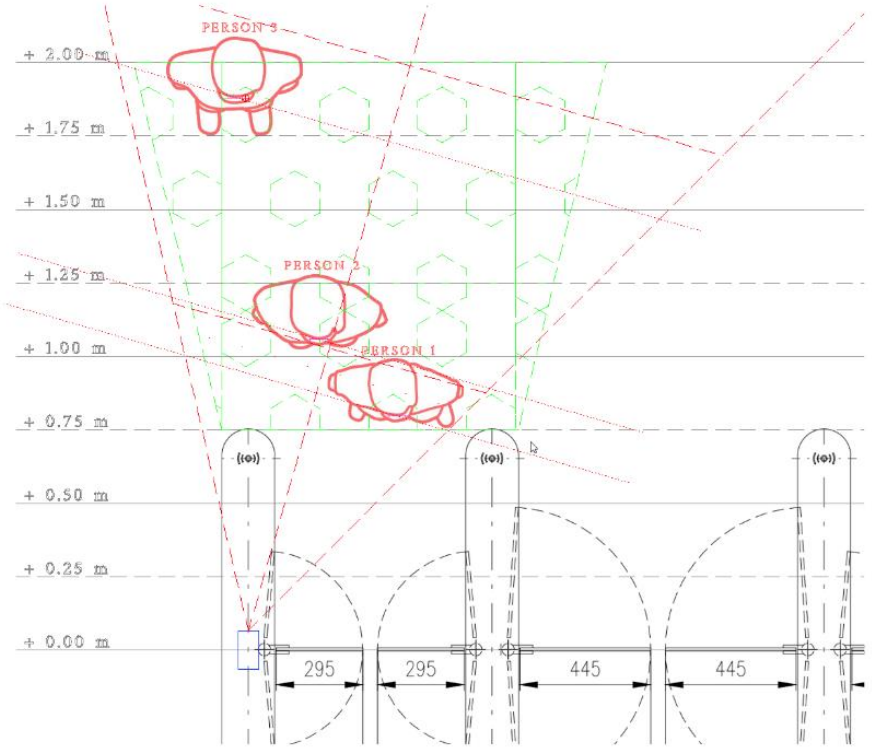
- Uses customizable strategy to open access points
- Only an authorized person closest to the access point is allowed to pass
- API interface
- Integration with access control industry standard protocols



Access Logic & Decision Making

User’s distance and order tracking

Only an authorized person closest to the access point is allowed to pass



Access Station App

Access Station App

- Shows detected, identified, or unidentified people accessing the premises
- Watchlists and blocklist management
- Instant on-screen notifications

Feedback Display

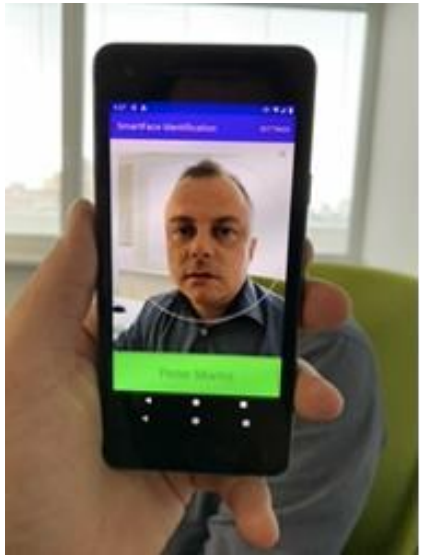
- Based on SmartFace notifications
- For tablets and mobile devices

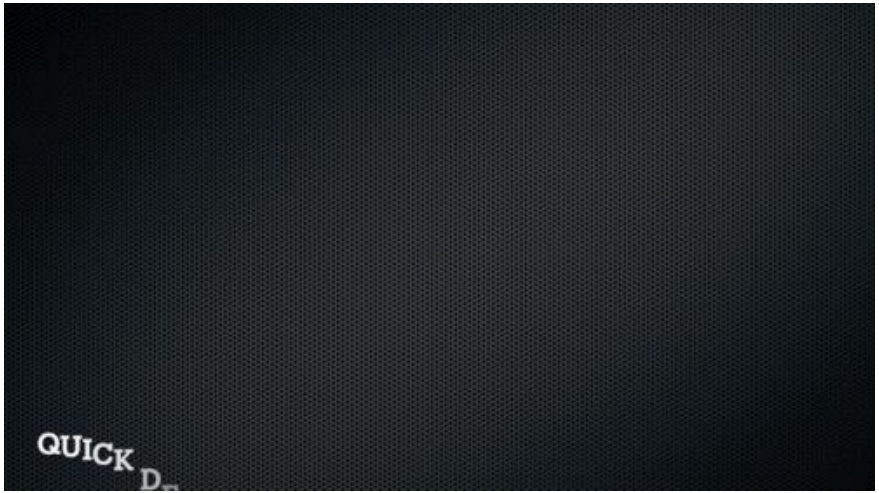
Cloud Matcher

Cloud Matcher

- Enables quick identification of an individual using various peripherals
- No need to process real-time video
- Saves hardware and network
- Identify individuals anywhere

Identification on the GO





Thank you!

Contact

robert.izak@innovatrics.com
www.innovatrics.com

Slovakia (HQ)
+421 2 2071 4056

Brazil
+55 11 4210-5185

Singapore
+65 3158 7379

USA
+1 404 984-2024

@2022 Innovatrics. All Rights Reserved