

Facial Recognition

Product Sheet



Uncover the identity of unknown persons in pictures and videos, compare them to your databases to search for matches. Use the facial recognition solution hand-in-hand with the investigation process to bring new entries to your evidence.

Problem And Challenges

In today's world, security and identification play a crucial role in various sectors such as law enforcement, access control, and fraud prevention. The need for a fast, accurate, and reliable identification solution is essential to address these challenges and improve overall security and user experience. One of the most time-consuming tasks for police and investigators during a case investigation is identifying persons from incoming images and videos* such as those from surveillance cameras or eyewitness accounts. Traditional methods often involve lengthy manual analysis, resulting in significant delays that can hinder the progress of an investigation.



Cogniware Facial Recognition

Cogniware Facial Recognition is a robust and secure on-premise facial recognition software designed to meet the specific needs of law enforcement and security agencies. This advanced solution streamlines the identification process by offering the ability to search an extensive biometric database for incoming images and videos*, as well as enabling direct comparison between two images for precise matching.

Our user-friendly on-premise application simplifies the process of querying the database and performing one-to-one comparisons, allowing users to quickly and accurately identify persons of interest in a variety of investigative scenarios.

For a more customized experience, Cogniware's Facial Recognition offers seamless integration into your existing pipeline through our flexible API (for example our integration into i2 Analyst's Notebook). This allows you to incorporate our cutting-edge facial recognition technology at both the input and output stages of your system, ensuring maximum compatibility and enhancing the overall functionality of your solution.

Business Value and Benefits ¹

1. **Rapidly and precisely identify** suspects in pictures or video*.
2. **Decrease the time** to find answers in data **by up to 99%**, allowing search large media archives in less than **0.6 seconds** based on a single image.
3. **Enabling quick reaction** for comparison of unknown suspects.
4. **Utilize valuable experts** on important tasks rather than performing routine ones thanks to automation.

Law enforcement and public safety applications

Investigative Support:

Enhance the efficiency of ongoing investigations by cross-referencing facial images of suspects, victims, or witnesses against a database of known individuals, expediting the identification process and providing valuable leads for investigators.

Missing Persons and Runaways:

Utilize Cogniware Facial Recognition to scan and analyze large volumes of images or videos* from various sources, such as social media, traffic cameras, or public events, to locate and track missing persons or runaways more effectively.

Border Control and Immigration:

Integrate Cogniware Facial Recognition into border control systems to verify travellers' identities against official documents and databases, helping to prevent unauthorized entry, human trafficking, and other criminal activities.

Deceased Individuals Identification:

Utilize Cogniware Facial Recognition technology to identify deceased individuals by comparing facial images from bodies found at accident sites, crime scenes, or natural disasters against a database of known persons. This streamlined process can provide vital information for forensic investigations, expedite the notification of next-of-kin, and help bring closure to affected families more efficiently.

Gang and Organized Crime Analysis:

Leverage Cogniware Facial Recognition and additional Cogniware solutions to identify and analyze connections between known gang members or organized crime syndicates by cross-referencing images or videos* from different sources, such as social media, surveillance footage, or undercover operations.

¹ Based on our delivered implementations in the EMEA and EU region in 2021-2023.

* Video processing requires additional components from our offering

Crowd Surveillance and Public Safety:

Implement Cogniware Facial Recognition into surveillance systems at public events, such as concerts, sports events, or protests, to identify potential threats, persons of interest, or known criminals, thus improving overall public safety.

Intelligence Gathering:

Integrate Cogniware Facial Recognition into social media monitoring tools or other open-source intelligence (OSINT) platforms to uncover and track individuals or groups involved in criminal activities, terrorism, or other threats to public safety.

Police of the Czech Republic uses Cogniware Facial Recognition

Cogniware won the open competition for Facial Recognition systems organized by the Police of the Czech Republic. Cogniware scored the highest results against all other competitors. Cogniware Facial Recognition achieved an astonishing score of 98,74% during independent testing by the customer. It is a tremendous success for our AI R&D team.



Features

Cogniware Facial Recognition includes the following functionalities:

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| <ul style="list-style-type: none"><input checked="" type="checkbox"/> Accurate and efficient facial recognition<input checked="" type="checkbox"/> Fast enrollment and identification<input checked="" type="checkbox"/> Robust and adaptable to various lighting conditions and face angles<input checked="" type="checkbox"/> Age, gender, and emotion estimation<input checked="" type="checkbox"/> Comprehensive API for custom application development | <ul style="list-style-type: none"><input checked="" type="checkbox"/> Scalable to accommodate growing databases and user bases<input checked="" type="checkbox"/> Multilanguage support<input checked="" type="checkbox"/> Manual inputs and automated imports<input checked="" type="checkbox"/> Personalization and customizations<input checked="" type="checkbox"/> On-premise solution completely disconnected from external sources |
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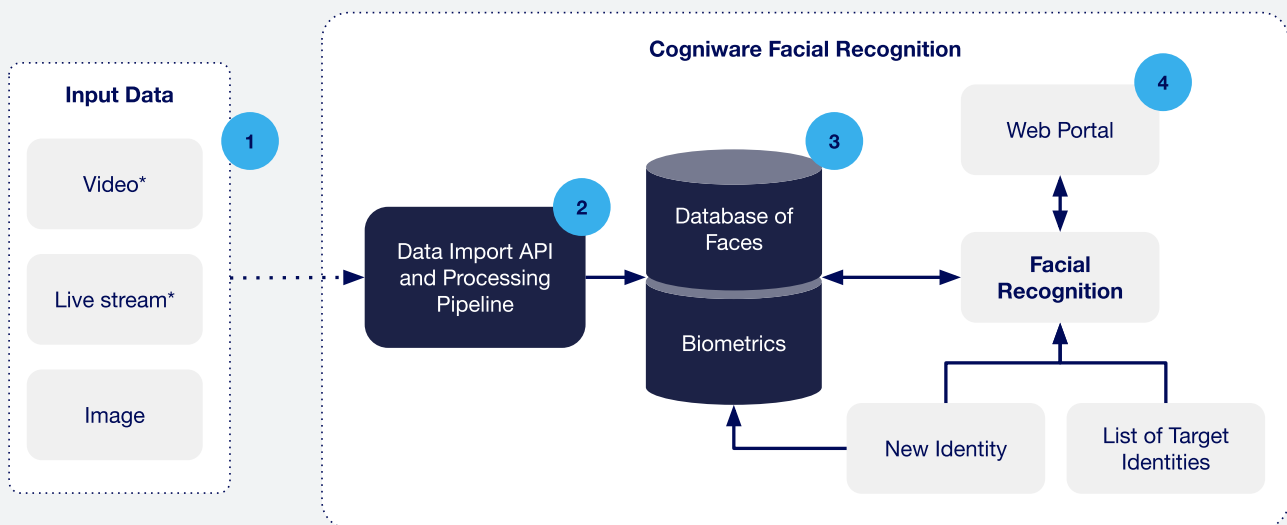
Technical Capabilities and Architecture

- Secure and efficient face data storage and management
- Import and export API for standardized integration and data exchange
- Specialized algorithms designed for optimal facial recognition accuracy and speed
- Built for efficient processing and scalability to accommodate growing user bases and databases
- Extendable with additional features, such as OSINT, biometrics, or other data sources



How Cogniware Facial Recognition Works

1. The system processes facial images from CCTV cameras, mobile devices, or other input sources.
2. Facial Recognition processes the images and extracts facial features to create unique face prints.
3. The templates are stored in a secured database and compared against existing records for identification or verification.
4. The system returns identification or verification results to the application for further action.



Required Infrastructure

Cogniwares Facial Recognition is available entirely on-premise, ensuring your data remains within your organization's boundaries.

Hardware requirements are subject to the specific sizing of a project. Please contact our representative to present you with relevant technical details.

Project Delivery

Typical project delivery time ranges from 1 month (off-the-shelf installation) to 3 months (custom requirements are delivered using our professional services).