



CYBERFACE
Biometric Digital Identity

Real-Time Identity Intelligence for Vehicles in Motion

An In-depth Look at the CyberFace FLR System
and the Core Technology That Powers It

The Critical Challenge: Identifying Individuals Inside Moving Vehicles

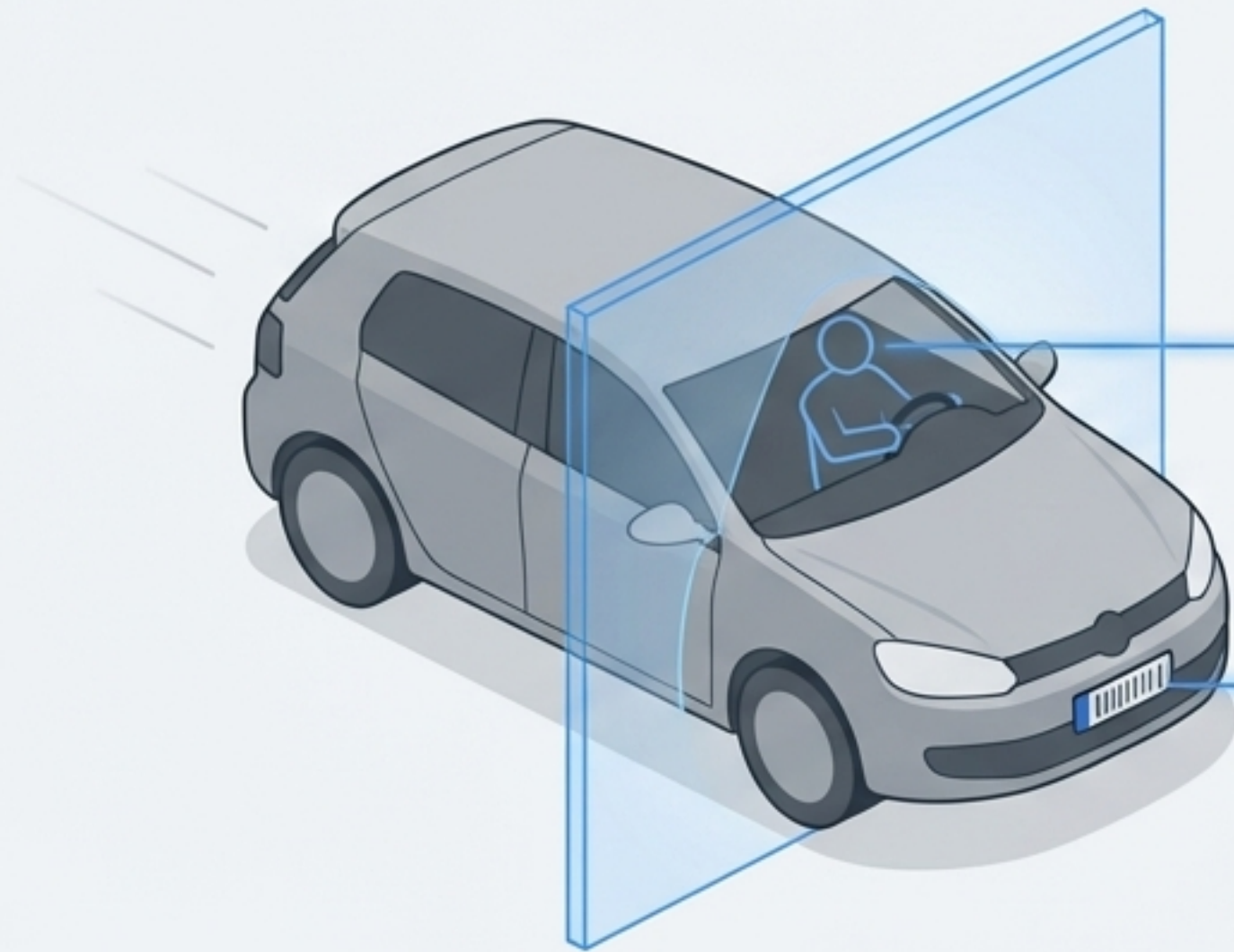
Identifying drivers and passengers through windshields—at speed and in unpredictable conditions—is a complex technological hurdle.

Factors like glare, low light, speed, and varied vehicle types create significant challenges for standard security systems.

This capability is non-negotiable for securing borders, critical infrastructure, and public spaces.



Introducing FLR: The Definitive Solution for In-Motion Vehicle & Driver Identification



Driver Identification:

Capture and verify the driver's facial biometrics through the vehicle's windshield in real time.



License Plate Recognition (LPR):

Simultaneously identify the vehicle's license plate.



Database Cross-Verification:

Instantly compare driver and vehicle data against watchlists (e.g., suspects, authorized personnel).



Driver-Vehicle Linkage:

Confirm that the identified driver is authorized to be operating the specific vehicle.

Unwavering Performance, Day or Night

Daylight Operations

The screenshot shows the VRCI software interface during daylight operations. The main window displays a car with a license plate '55-1221' and a driver's face highlighted. A sidebar on the left shows a list of events, and a bottom panel shows a 'None' match result.

Event ID	Date
972722087	2024-10
975261483	2024-10
975088377	2024-10
972381143	2024-10
971976107	2024-10

Event Details:

- Id: 372006143
- Camera Id: 10
- Time: 2024-10-20 17:53:54.21008Z
- License Plate Number: 5317213

None: [None] Verity Status: No Match Is Matched: 10ms

Infrared (IR) Night Vision

The screenshot shows the VRCI software interface during infrared (IR) night vision operations. The main window displays a car with a license plate '5704837' and a driver's face highlighted. A sidebar on the left shows a list of events, and a bottom panel shows a 'None' match result.

Event ID	Date
14255139	2024-10
18196123	2024-10
19634405	2024-10
12040615	2024-10
12557799	2024-10

Event Details:

- Id: 15702155
- Camera Id: 10
- Time: 2024-10-15 17:00:00.34055Z
- License Plate Number: 3704827

None: [None] Verity Status: No Match Is Matched: 10ms

Unified Command & Control for Comprehensive Situational Awareness

The FLR interface provides a centralized view of multiple camera feeds and events simultaneously. Operators can monitor traffic, receive real-time alerts for persons or vehicles of interest, and instantly drill down into event details for rapid assessment and response.

The screenshot displays the VIKI FLR interface. At the top, there is a navigation bar with the VIKI logo and menu items: Home, Events, Users, Operators, Cameras, Enrollment, LPR. The user is logged in as 'superAdmin' with the role 'SuperAdmin Admin'. The interface is divided into several sections:

- Primary Feed with Live Analysis:** A large video feed on the left showing a white van. Below the video, there is a 'Verify Status' section with a green indicator and the text 'No Match to Metadata: None'. To the right of the video, there is a 'Real-Time Event Log' section with a blue border. It contains a table of events:

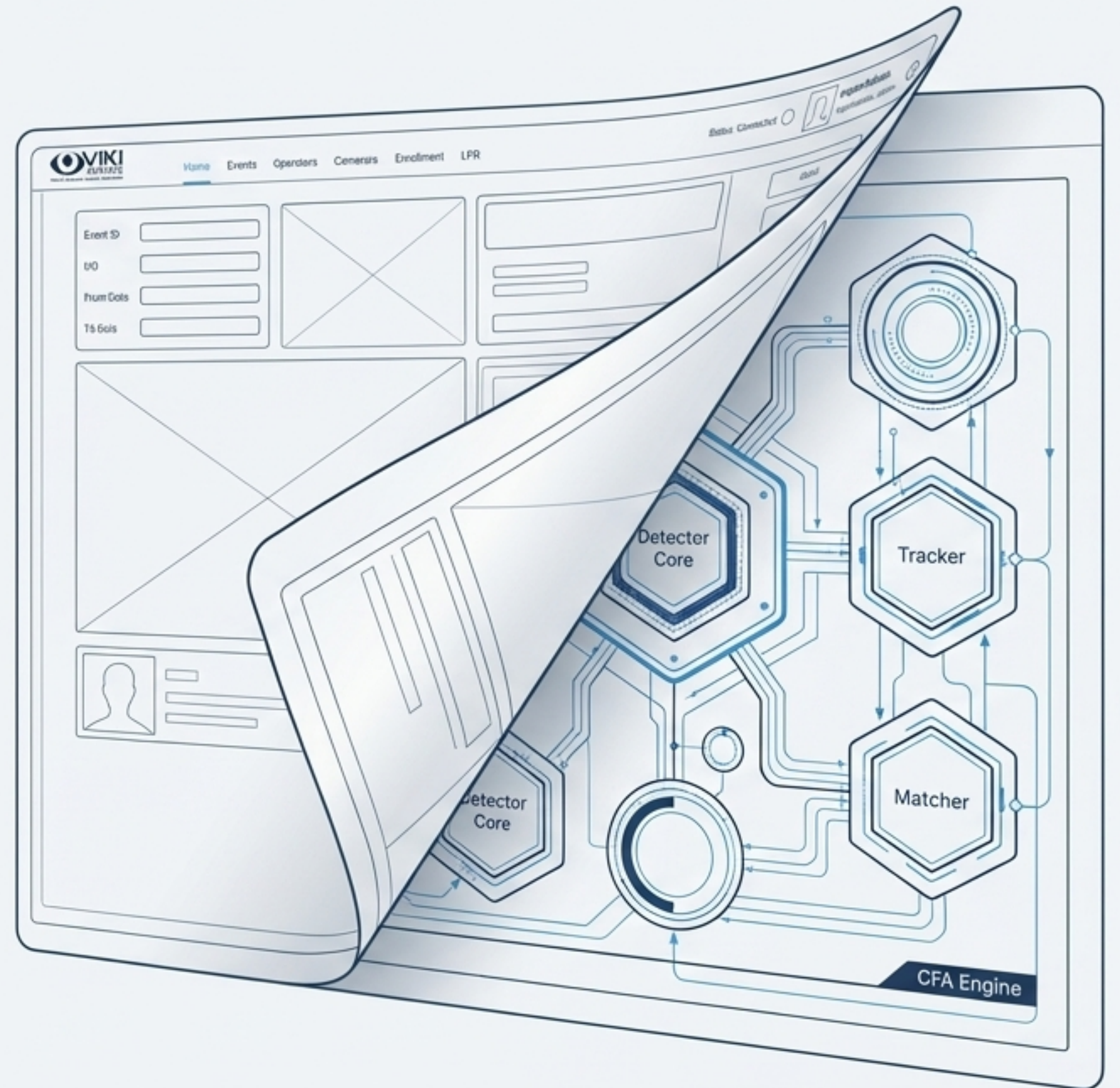
Event ID	Camera ID	Time	License Plate Number	Driver	Verification Status
91074275	10	2024-10-28T12:38:49.002Z	73-756-34	[Driver Image]	Match
00600005	10	2024-10-28T12:38:46.002Z	73-756-34	[Driver Image]	Match
57880025	10	2024-10-28T12:55:43.881Z	43-664-34	[Driver Image]	Match
01081029	10	2024-10-28T12:55:11.002Z	63-998-86	[Driver Image]	Match
107803705	10	2024-10-28T12:57:31.002Z	479-27-603	[Driver Image]	Match

- Instant Verification Status at a Glance:** A vertical column on the right side of the event log, showing a green checkmark and a silhouette icon for each event, indicating a successful match.

Labels with arrows point to the 'Primary Feed with Live Analysis' and the 'Instant Verification Status at a Glance'.

Exceptional Performance is Engineered, Not Accidental

The accuracy, speed, and reliability of the FLR system are built upon our proprietary Cyber Face Authentication (CFA) engine. Developed in-house over 4 years, the CFA engine is a suite of advanced components designed for the most demanding real-world biometric identification scenarios. Let's look under the hood.



Core Strength I: Advanced Detectors & Continuous Tracking



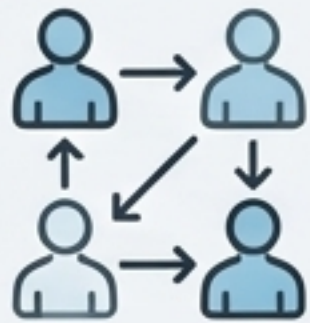
Optimized Video Detectors:

Engineered for real-time analysis, enabling high FPS processing without degrading image quality and intelligent filtering of face angles based on camera placement.



High-Performance Face Detection:

Rapidly identifies multiple faces even in complex frames and varied lighting, preparing them for vector extraction.



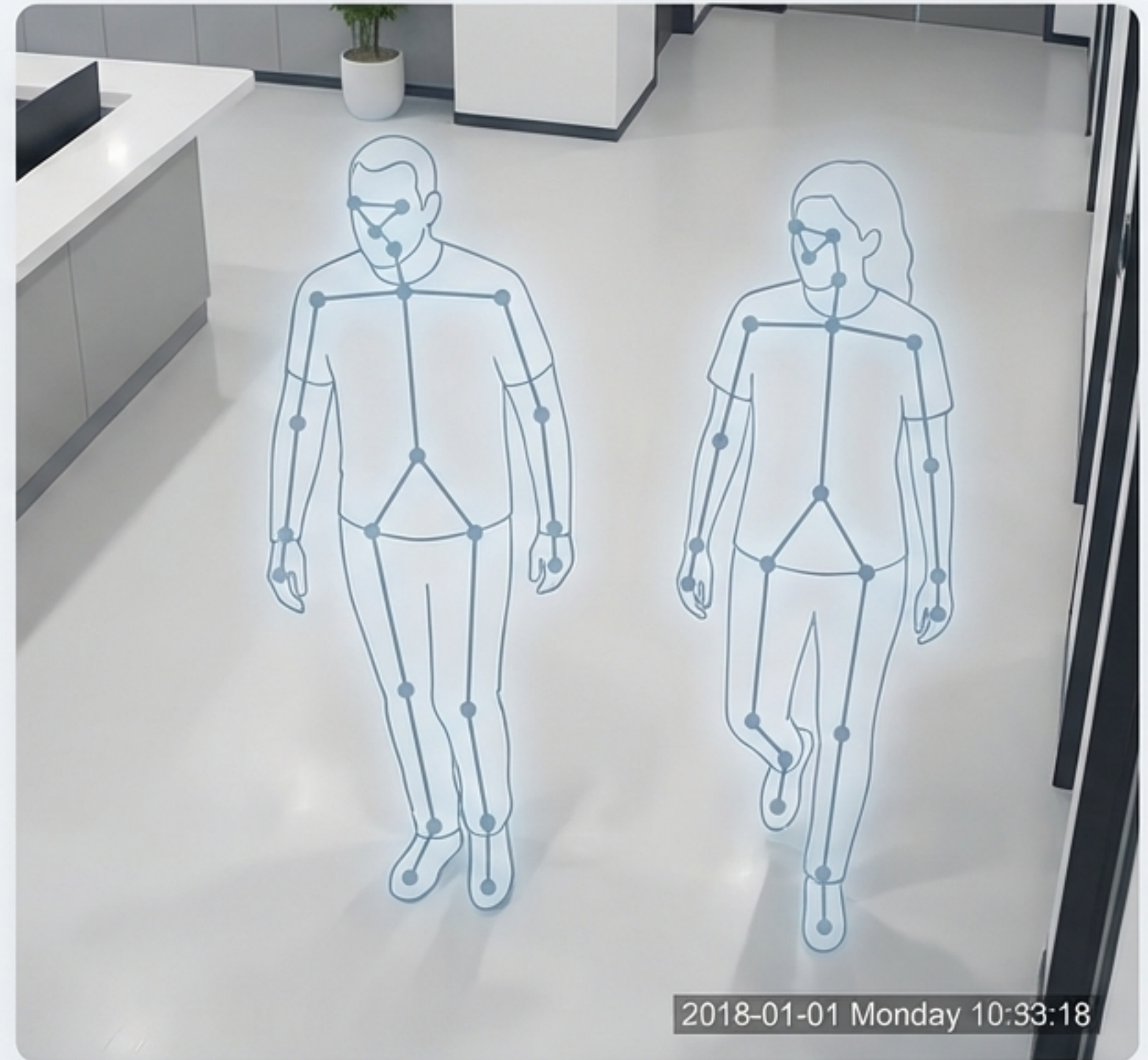
Robust Object Tracker:

A purpose-built engine for video analysis that maintains continuous tracking of multiple people between frames, even with image "noise" and high computational loads.



Core Strength II: Unbroken Identity with Skeleton Analysis

Our system doesn't just look for faces; it understands human form. By implementing Skeleton tracking, the CFA engine maintains a persistent identity lock on an individual, even if they turn their back to the camera or are partially obscured. This ensures superior tracking continuity in crowded and dynamic environments.



Core Strength III: Unprecedented Scale and Verifiable Precision

1.3 Billion

Comparisons Processed

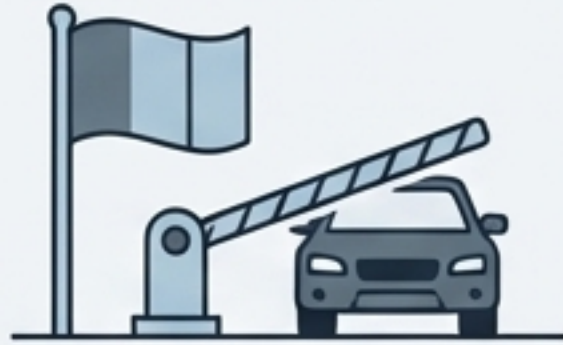
Our GPU-optimized matcher is capable of managing and executing billions of biometric comparisons with extreme efficiency. It was trained and tested with over 1.3 billion comparisons.

0.0000041

Operational False Acceptance Rate (FAR)

Before matching, a proprietary model assesses image quality. By filtering out low-quality captures, it dramatically improves engine performance and reduces errors, achieving an operational False Acceptance Rate (FAR) of 0.0000041.

Enabling Mission-Critical Operations Across Sectors



Border Control

Increase throughput and efficiency by automating vehicle and driver verification, reducing manual workload.



Critical Infrastructure Security

Enforce access control for vehicles entering airports, seaports, military bases, and government facilities.



Law Enforcement & National Security

Identify vehicles and drivers from suspect watchlists at city or district entry/exit points.



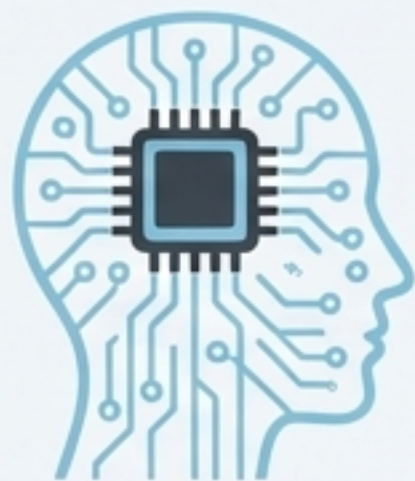
Urban Access Management

Manage and verify vehicles entering restricted city zones for security or tolling purposes.

The CyberFace Advantage: Performance, Flexibility, and Privacy-by-Design

- **Proprietary AI:** Our solutions are powered by a cutting-edge, in-house developed AI platform ('Blue and White' technology).
- **Flexible & Customizable:** Our software platform can be tailored to specific operational needs, with flexible deployment options (On-Premise, Cloud, Hybrid).
- **Core Pillars:** Our innovations focus on four key pillars: Safety, Security, Efficiency, and User Verification.
- **Key Differentiator: Privacy First:** We enable secure access control and identity verification **without storing personal images or identifiable data**. This design ensures full protection against data leakage.





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