



# Biometric Innovation in Travel & Border Management: Q&A with Tim Ferris

Advancing secure and efficient travel through biometric innovation

# TRAVEL

POSTED ON 03.11.26

As Global Head of Travel & Transport at IDEMIA Public Security, Tim Ferris drives innovation at the intersection of identity, security, and passenger journeys. With over two decades of experience in global travel technologies, he shares insights into how biometric advancements are reshaping the way people move—safely, efficiently, and seamlessly—across borders.

## How is IDEMIA Public Security using biometric identity verification to enhance border security and global passenger flows?

We deliver best-in-class, trusted biometric solutions that transform travel and transport. Designed with advanced technologies, our solutions optimize processes, enhance decision making, and enable seamless, personalized, digital passenger journeys.

With over 50 years of experience in biometrics and AI, our solutions combine operational throughput with the highest security standards, supporting the smooth processing of over 1.5 billion travelers each year across air, land, and sea borders.

## What developments have been made in biometrics for identity in recent years?

Biometric technologies are increasingly being adopted by governments, port operators, and carriers to verify identities, secure borders, and boost productivity. Traveler acceptance has grown significantly, making biometrics a key driver of digital transformation.

Fingerprints, traditionally captured via touch sensors, can now be collected contactlessly and on the move. Facial recognition has become the dominant modality, enabling truly frictionless identity checks: travelers no longer need to stop, pose, or interact with a device. Algorithms now perform accurately across age, gender, and ethnicity—even under challenging conditions—and support on-the-move and multi-face capture for groups, families, and travelers requiring assistance. Iris recognition is also gaining traction, offering the same hands-free, stop-less experience, with walkthrough capture now possible. Groups no longer need to be separated, as simultaneous capture is available for up to five passengers. Together, these innovations enable a significant increase in throughput while delivering a smoother, more inclusive experience without compromising on security.

Remote biometric identity verification, combining passport authentication and live face capture with Presentation Attack Detection and Morphing Attack Detection, is growing in interest. Indeed, it allows travelers to create reliable digital identities via their smartphones, enabling them to arrive ready to travel and enjoy a document-free journey. Multimodal solutions—combining face, fingerprint, and/or iris—further strengthen both convenience and security, adapting seamlessly to different operational contexts.

## What trends and customer demands are driving the use of biometrics?

Traveler expectations are evolving rapidly: Over 74% would be willing to share their biometrics, if it meant they could skip showing a passport or boarding pass, valuing efficiency and contactless convenience. At the same time, operators face higher passenger volumes and staffing challenges, creating demand for scalable, automated, self-service solutions. Post-pandemic hygiene concerns and new regulatory frameworks, such as the European Entry/Exit System and Digital Travel Credential, are accelerating adoption.

## What advantages do the latest biometric technologies provide?

The latest solutions offer faster, more secure, and inclusive travel. Walk-through and group processing increase throughput, reducing queues and waiting times. Enhanced anti-spoofing and low false rejection rates strengthen trust, while multimodal solutions deliver forensic-level identity assurance in high-traffic environments.

Fully aware of travelers' concerns regarding data privacy, IDEMIA Public Security is committed to complying with the most stringent regulations, including the European GDPR and the Cyber Resilience Act. We give travelers the choice to securely store their biometric data on their own smartphone for use at each touch point, or to temporarily share it with a trusted central system. This enables a seamless "Look & Go" experience across all checkpoints, without the need to repeatedly present travel documents, while ensuring end-to-end encryption and robust data protection. In all cases, traveler consent remains central.

Beyond human identity, biometric innovation is now extending to the identification of objects. By applying the same principles of precision, security, and trust to physical assets, biometric technologies can help streamline operations and boost efficiency across the travel ecosystem. This evolution opens new possibilities for improving processes, such as baggage handling, where reliable identification is just as critical as it is for passengers themselves.

## What are IDEMIA Public Security's new products and services in this field?

We continue to innovate with next-generation solutions across air, land, and sea travel:

- ➔ **OneLook™ Gen2:** dual-biometric capture of face and iris for multiple travelers on the go, even for people moving faster than 6km/h.
- ➔ **ALIX™:** AI-powered luggage identification for seamless baggage handling, rapid offloading of no-show passengers, and efficient claims operations.

## What are the main threats to identity security, and how are they addressed?

Emerging threats include presentation attacks, morphing, adversarial attacks, and deepfakes. We invest heavily in R&D, combining expertise in hardware, data science, and algorithms to design capture systems and detection tools that stay ahead of evolving risks.

## What innovations are on the horizon, and what challenges will they address?

Future developments focus on simplifying operations while maintaining security:

- **On-the-go, multi-passenger processing:** Groups progress through checkpoints without stopping, using real-time, fair, and accurate facial recognition.
- **In-vehicle self-service processing:** Purpose-built systems for land and sea borders are adaptable to diverse infrastructure and traveler profiles.

As travel evolves toward greater automation, personalization, and resilience, IDEMIA Public Security combines decades of expertise with AI to deliver smarter, faster, and more equitable identity solutions.