



Elevating the Passenger Journey With Biometrics and Identity Verification

Introduction: Airlines in the Age of Digital Transformation



The Ascent of Digitization

The air travel sector has been undergoing a substantial digital transformation for years. Even prior to the pandemic, the industry was starting to experiment with AI-driven technologies that could streamline the traveler experience and better assist border control authorities while increasing throughput — solutions like self-service kiosks, crowd analytics and biometric authentication.

In the wake of the pandemic, that innovation has accelerated and the need for it is greater than ever. Travelers' needs have changed. There is a heightened and sustained awareness of the need for health measures that curb face-to-face interaction, and an intensifying expectation that digital interfaces will be offered to empower self-service, such as when checking in and dropping off luggage, with minimal administrative burden.



The Passenger Journey Is at Risk

What's more, with the most severe pandemic travel restrictions having been lifted, the appetite for travel has surged with a vengeance. Air travel authorities worldwide have been overwhelmed trying to meet this increased demand.

During the pandemic, airlines implemented layoffs due to decreased travel demand. Post-pandemic, they've faced logistical issues restaffing those positions. As a result, US-based carriers alone canceled almost [145,000 flights in 2022](#). There have been over a million flight delays and nightmare stories from travelers, jeopardizing the passenger experience.





Identity Verification Can Save the Day

Technological innovation has a vital role to play in improving the air travel situation. Implementing the right solutions can not only resolve some of the challenges post-pandemic, but also lay the foundation for long-standing competitive advantages in the effort to win and retain customers.

But what are the right solutions? They must be able to reduce friction, minimize administrative burden and enable airlines to offer value-enhancing services that can optimize the passenger experience. At the same time, consumer expectations and an evolving regulatory environment demand that any such solutions offer the highest level of security, privacy protection and trust.

Fortunately, innovation in biometric and document validation technologies can address some of the industry's most pressing issues. This eBook outlines these technologies available to solve not only the particular air travel challenges today but also ensure ongoing transformation in the years to come.

Identity and the Air Travel Experience

The Passenger Journey Starts With Identity Verification

The passenger journey through the airport is a multifaceted and often complex experience. As such, it offers several areas where the airlines and airport operators can improve the customer experience: check-in, baggage drop, lounge access, retail/duty-free shopping and boarding.

What makes these activities complicated is their need for reliable identity verification at every touchpoint of the journey. It's crucial to identify travelers from the very beginning of the process — at check-in. But it's then necessary to make sure that the same person who just checked in is also the one dropping off a piece of luggage, both for security purposes and to ensure that the luggage ends up in the right hands at the end of the journey.

In other words, moving through an airport is defined by permissions tied to the traveler's identity — and this is a big challenge for the airlines as travelers demand a streamlined, seamless process.



Figure 1: Identity verification at every touchpoint of the travel journey to ensure a secure, seamless passenger experience

A Mutual Need for Secure Travel

Airport operators and airlines want that ideal process, too, but they have unique concerns of their own. They are required to collect massive amounts of information, often of a highly sensitive nature, from their customers. These data collection processes can be onerous and add friction to the travel experience, while at the same time adding a significant burden of liability for the airport and airline operators, thanks to a constantly evolving regulatory patchwork including laws like Europe's General Data Protection Regulation (GDPR) and the California Consumer Privacy Act (CCPA) in the US.

Apart from regulatory compliance, there are other good reasons to worry about protecting customers' privacy and securing their sensitive information against fraud and cyber threats. Hack attacks and data breaches are bad for businesses, while strong data protections can only enhance a brand's image. That's why it's so important for air travel stakeholders to embrace technological innovation to tighten security.



What Is a Trust Anchor?

A trust anchor is an irrefutable identity verification session that provides the foundation for an entire chain of authentication events.

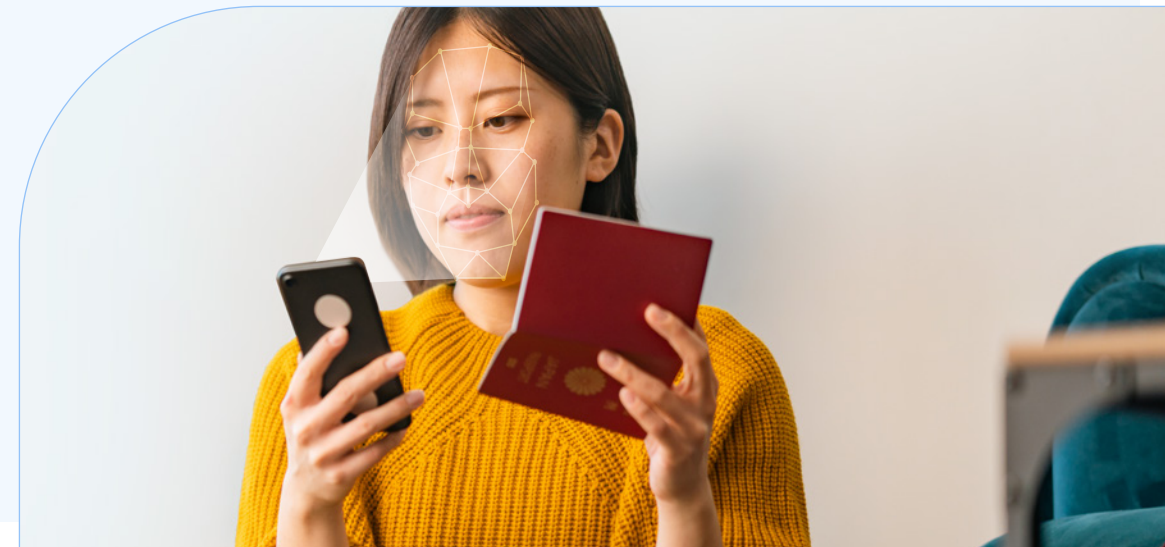
It requires both biometrics and biographical information and binds them together. For example, facial recognition technology can be used to match a traveler's selfie photo to the image on their passport, thereby verifying that the biographical information on the document belongs to the recognized face. From there, only the traveler's face is needed to verify data like name, date of birth, citizenship and so on.

A Job for More Than Just Biometrics

Anchoring Trust by Binding ID Documents and Face Biometrics

Biometric technology is quickly becoming an intrinsic part of the travel process, thanks in large part to border security authorities. In America, for example, US Customs and Border Protection has been using facial recognition to automate identity verification at security checkpoints. The European Union, meanwhile, has mandated biometric border screening for members of the Schengen Area, seeking to secure the perimeter of the free travel zone.

These government authorities have embraced biometric and identity verification (IDV) technologies in matching travelers to their government-issued identities and passports. Once a face is matched to a given identity document, that same face can be reliably tied to the biographical information depicted on the document. It creates a trust anchor by which authorities know that a given person is who they say they are.



Customer Experience, Levelled-Up

Border control authorities are not the only actors in the air travel process who can benefit from this trust anchoring. With the proper deployment of facial recognition and document validation technologies, airport operators and airlines can use trust anchors to identify their customers at every step of the air travel process, from check-in to lounge access to boarding.

For the traveler, the result is a profoundly streamlined travel experience. All that's needed is one initial enrollment process, comprising two simple components: a face scan and an identity document scan. The traveler's face is automatically linked to the document and can be tied to other information that an airport or airline administrator might need, such as the traveler's boarding pass. That means the traveler can check their bags, buy a snack, access a lounge and even board a plane without having to show any further documentation.

The result is a huge level-up for the customer experience. No more bottlenecks at bag drop, no more confusion at lounge access and no more long lines at the boarding gate — and much happier customers.



Enabling a Seamless Traveler Experience With HID's Modular Solution Approach

When One Comprehensive Solution Isn't Enough

The airport environment has a massive scope of identity applications, and each use case brings its own demands for biometric hardware, software and document reading technology. One comprehensive solution based on trust anchor verification is not always viable to provide the best possible passenger experience. That's why HID takes a modular approach to air travel solutions.

HID's modular solution approach to technologies for enrollment, Know Your Customer (KYC), facial recognition, biometric matching, data management, liveness detection, document reading and more, enables flexibility and ease of deployment. Each individual technology in our portfolio can be installed with minimal integration effort, as needed, and according to budget requirements.

With HID's modular solutions, airlines and airport operators can easily and quickly add biometrics and identity verification features to their existing systems without the need to rip and replace or migrate to a new platform altogether.



Figure 2: The components of HID's modular identity solution

The Airport Experience of the Future Starts Now



Start Elevating Your Passenger Experience

The competition for passengers is fierce as travel takes off once again. With millions of travelers experiencing delays, cancellations, baggage mix-ups and the continued strain on airport staff, being able to deliver premium customer experiences is a crucial advantage.

Empowered by HID's modular identity solutions, airlines can stand out from their competition by providing a truly seamless passenger experience, from when customers book tickets to when they arrive at their destination.

Start elevating passenger journeys today:

[Visit our website](#) to learn more about HID's modular identity solution.

[Follow us on LinkedIn](#) to keep up with HID's latest developments in identity authentication and verification.



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