

## Introduction

In today's world, the needs and expectations of travelers are growing at an exponential rate. Governments and travel service providers require security that can provide a seamless, secure travel experience no matter the mode of transportation. With remote identity verification (IDV) technology, they can now provide a customer-friendly process as well as meet operational requirements on both a national and international scale.

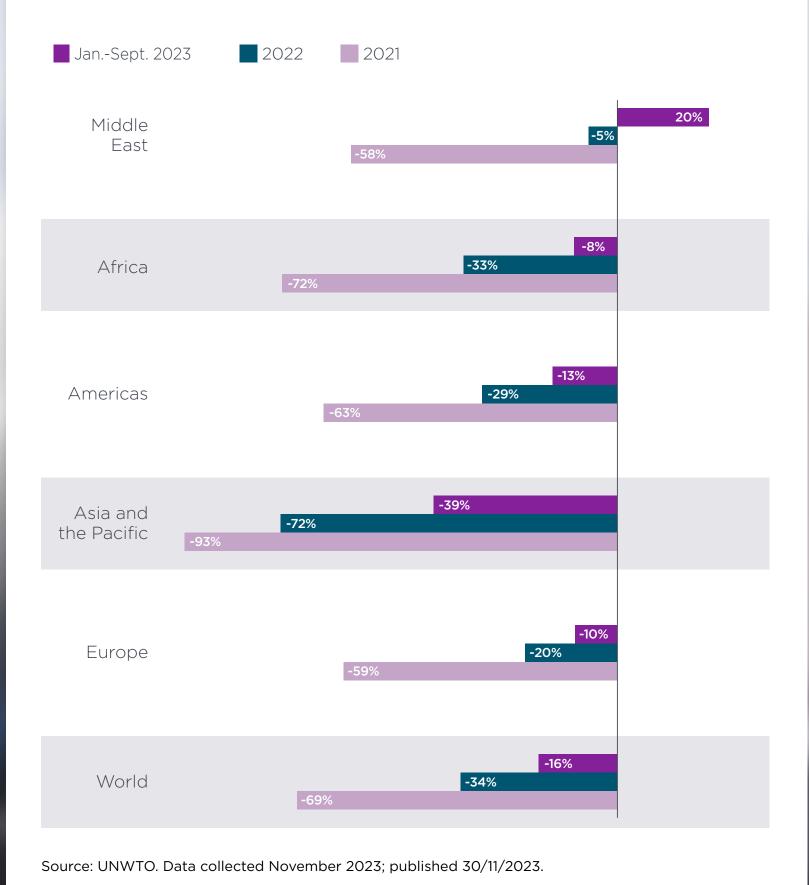
This ebook provides an in-depth explanation of how government agencies and travel service providers can provide citizens and travelers a seamless, secure experience via the adoption of identity verification technologies. Whether crossing borders, accessing e-services (purchasing tickets, using frequent flier miles), or checking in to a flight, train, or cruise, the way identities are managed affects citizens' ability to move through the world safely and freely.

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# International Tourist Arrivals Compared to Pre-Pandemic Levels

All world regions are on their way toward pre-pandemic levels, with the Middle East leading the recovery with arrivals at **20% above** pre-pandemic levels in the nine months through September 2023.



# How Research Informed the Need for Remote Identity Verification (IDV)

Digital technology continues to drive transformational change in the transportation sector. Since COVID-19, the debate on digital identities has intensified and led to innovation in the identity verification process, providing more precise outcomes with higher levels of assurance and trusted risk assessments to create a seamless solution for travel.

Research from the United Nations World Tourism Organization (UN Tourism) suggests international tourism is nearly back to pre-pandemic levels. Specifically, it found that tourism recovered 87% of pre-pandemic levels in January-September 2023, putting the sector on course to recover almost 90% by the end of the year. Researchers noted that an estimated 975 million tourists traveled internationally between January and September 2023, an increase of 38% over the same months of 2022.

This resurgence means the travel and tourism industry across airlines, airports, cruise lines, railway operators, hotels, and other segments is now faced with the challenge of making the passenger journey more seamless with minimal touchpoints and human interactions.

That's where remote IDV comes in.

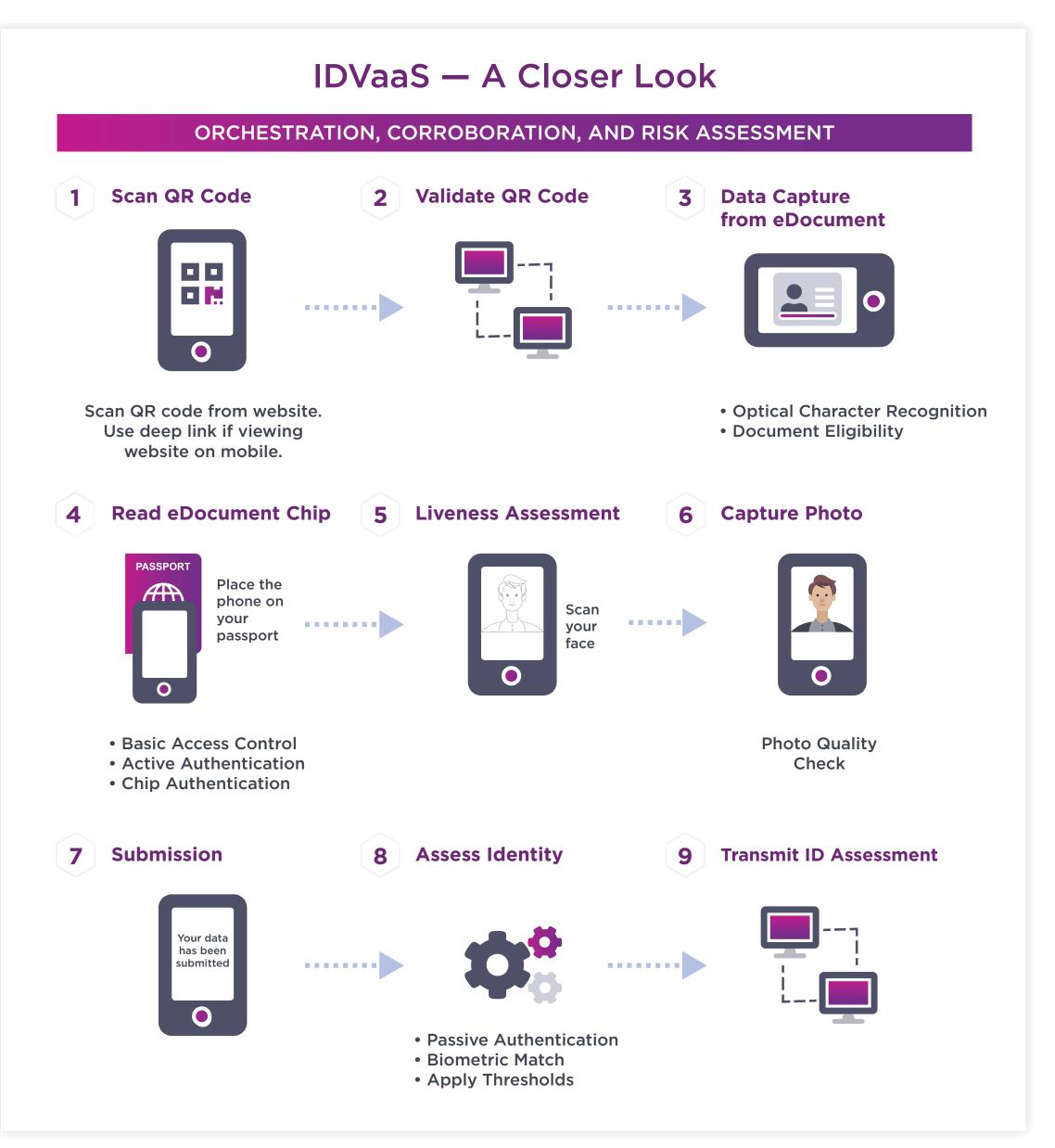
# **Defining Remote IDV**

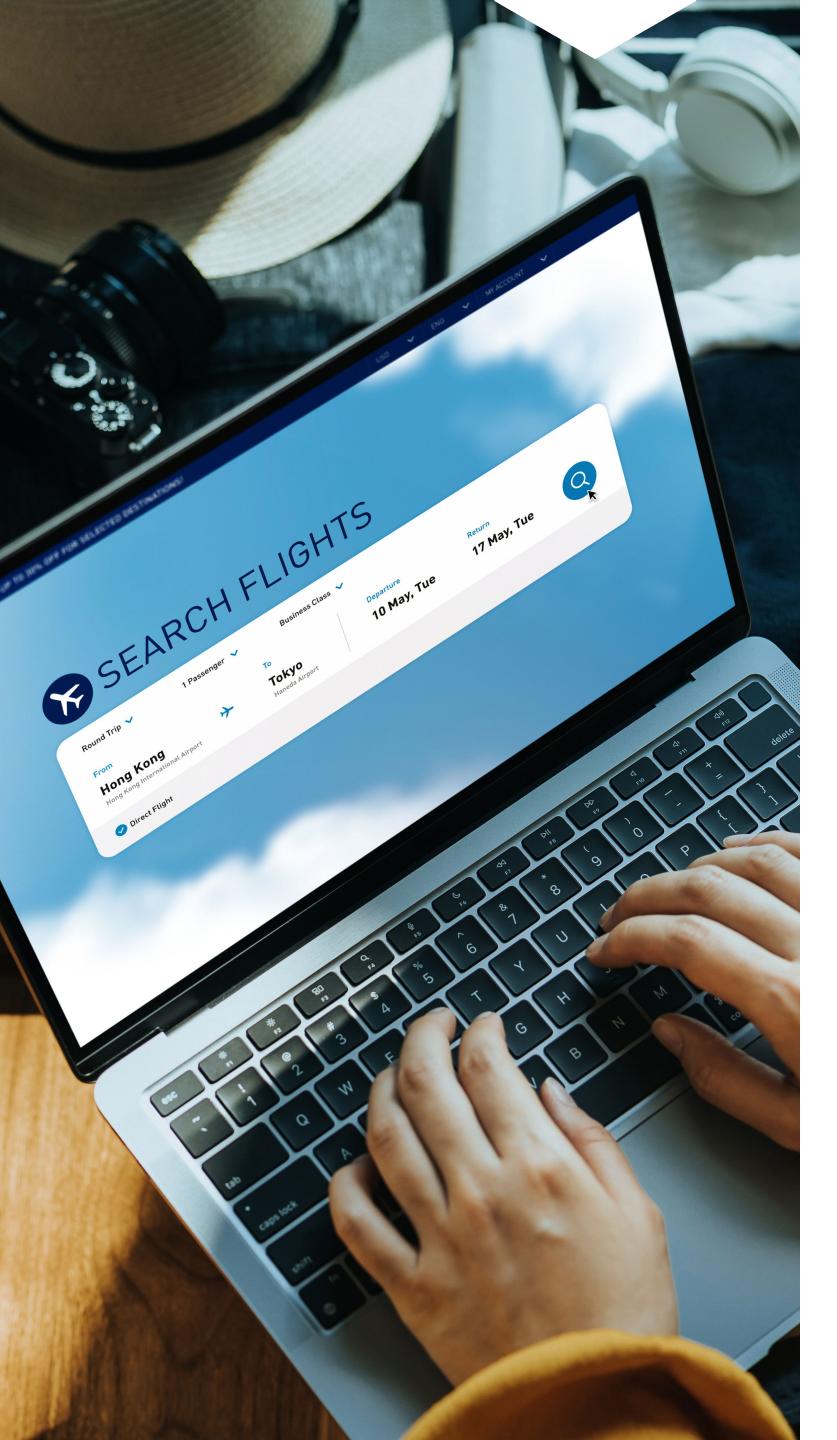
**Remote** means passengers can make all their travel arrangements from the comfort and safety of their own homes, avoiding large crowds and lines.

**Touchless** means there is no need to interact with common equipment, such as kiosks, or hand over physical documents to officials.

The good news is that the technologies to enable all this already exist.

Thanks to game-changing improvements in facial recognition technology, we can now allow travelers to register their biometrics and passport information remotely, before leaving home, at a level of security that meets the requirements of travel service providers, airports, and government authorities. Previously, checking passenger identities against travel documents was left to the judgment of border officers and airline officials. Today, properly calibrated facial matching systems can perform this task many times more accurately than humans ever could.





# Why Remote IDV?

Travelers want seamless, secure experiences. Whether they're crossing borders, accessing e-services, or checking in to a flight, train, or cruise, the way identities are managed affects their ability to move through the world safely and freely.

Biometric technologies – specifically facial recognition – have seen an increase in use in the aviation industry and more so now post-pandemic. The International Organization for Standardization (ISO) defines biometrics as: "Automated recognition of individuals based on their biological and behavioral characteristics."

A **2021 NIST study** found that the most advanced facial recognition algorithms were capable of checking the identities of passengers on 545 of 567 flights, each carrying up to 420 passengers, with no "false negative errors" (when the software fails to match two images of the same person). Stated in terms of error rates, this corresponds to identifying more than 99.5% of travelers accurately with a single presentation to the camera.

While COVID-19 intensified the debate on the digitization of identity management, the discussions have led to the birth of remote identity verification services providing more precise outcomes, with high levels of assurance (LOAs) and trusted risk assessments to create a seamless solution.

## Best practices in a trusted identity verification service are:



Secure authentication of identity documents with high LOA



Compliance with international security and privacy standards



Advanced biometric technology – such as facial matching – to link a person to a document



Built-in monitoring and reporting tools for performance and usage



Easy integration into existing backend systems

**Entrust's cutting-edge** identity verification platform and seamless travel solution approach redefines the travel experience. With consent-based one-toone facial matching, your face becomes your check-in ticket, boarding pass, and passport for border exit or entry. This is the future of the traveler experience.

Gordon Wilson,
Entrust Vice President
of Identity Verification

## Remote IDV Benefits



Submitting your data and validating your identity before you reach the airport is much like checking in before your flight so you don't have to interact with airline and airport personnel multiple times. You can use your face as your ID/ticket to seamlessly access biometric lanes and other airport services while remaining compliant with regulations.



## **Carriers**

Carriers can promote and implement seamless remote identity verification solutions to improve their traveler experience. Plus, as biometrics such as facial recognition become industry standards for travel, carriers can upgrade their systems with confidence, knowing they are complying with government regulations.



## **Airports**

Traveler experience depends largely on the airline/carrier/airport. A happy traveler experience also contributes to larger traveler spending.

How many times have you heard a passenger say they are disappointed in "xyz" airline or airport because of extensive security checks and long lines?

What's often really happening behind the scenes is that government regulations are being implemented in a way that creates friction and delays. By implementing remote identity verification designed with security and privacy in mind, airports can upgrade their systems while remaining compliant with regulations.



# Digital Travel Credentials (DTCs)

How digitization of passport data benefits passengers, operators, and governments.

Digital Travel Credential (DTC) standards are another game-changer that brings seamless travel a step closer. In late 2020, the International Civil Aviation Organization (ICAO) – the UN agency that sets standards for aviation, including passports – published the much-anticipated DTC standard, a credential derived from a passport that can be stored on the holder's smartphone.

Crucially, the derivation of passport data in a digital format allows it to be transmitted – at the holder's discretion – to multiple players in the travel continuum and stores it securely for future use. This technology provides additional security while adhering to regional and international mandates; it also saves time for both travelers and border personnel.

## The benefits of implementing DTCs:

- As a backup to physical passport books, DTCs offer an alternative when a passport is lost or stolen, potentially reducing the need for emergency travel documents
- The ability to send passport information securely in advance improves the passenger experience, enabling face-as-ticket processes
- Access to secure, reliable identity data before travel allows providers to make watchlist checks, much earlier in the travel continuum, offering more time to deal with persons of security interest

## **Entrust's Seamless Travel Solution**

At Entrust, our goal is to improve the passenger journey through secure remote identity verification from the time passengers leave home to when they reach their destination. As we have already established, post-pandemic passengers are eager to travel but prefer minimum human interaction and fewer touchpoints. A 2022 survey from the International Air Transport Association (IATA) reported 75% of passengers preferring biometrics over passports or boarding passes. With advancements in digital identity verification and trusted biometrics, a seamless and contactless passenger journey is possible. Entrust offers secure, trusted infrastructure to enable a smooth and seamless passenger journey.

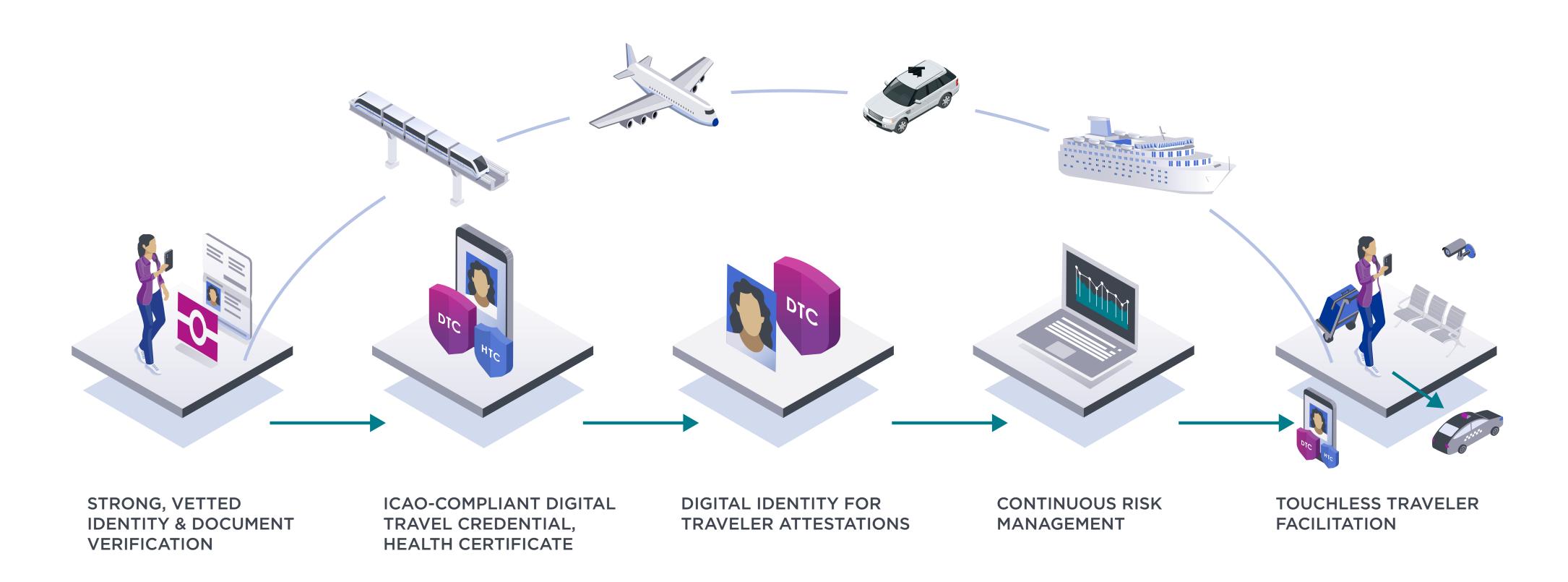
## **Key Benefits**

Entrust applies its innovative **Identity Verification as a Service (IDVaaS)** platform and processes as a digital services enabler for:

- Improved travel safety, security, and facilitation
- Immigration and border requirements
- Easy and secure ID issuance and verification
- Digital travel credential issuance
- Enrollment and ID verification and/or re-verification for travel service providers

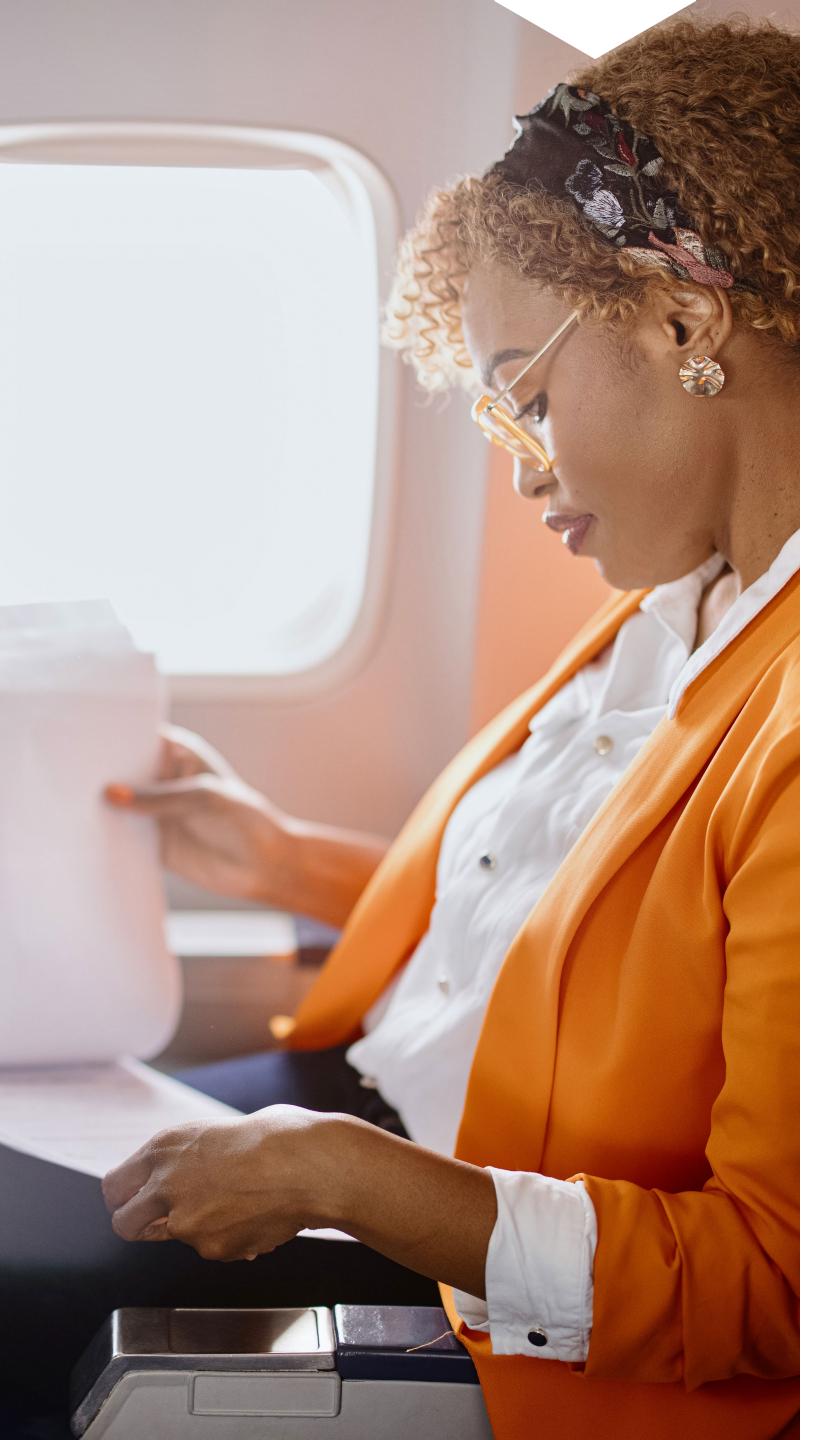


## DIGITAL TRUST WITHIN THE TRAVEL CONTINUUM



HIGH ASSURANCE DIGITAL IDENTITY

TRAVEL CONTINUUM



## Summary

Entrust's remote identity verification solution builds on the authentication building blocks that characterize Entrust as a leader in identity solutions. We provide the underlying security and infrastructure to enable secure management, issuance, and transactions across the identity landscape.

Our secure technology solutions enable enrollment, issuance, and lifecycle management for national IDs, passports, driver's licenses, and other physical and digital credentials that are highly resistant to fraud, forgery, and alteration. In addition, Entrust delivers a trusted infrastructure required to manage the identity lifecycle such as post-quantum cryptography, multi-cloud security, and database security.

Entrust's IDV solution provides enhanced passenger engagement and high identity assurance. It is highly configurable, with the choice of best-of-breed service components (e.g., liveness, facial recognition, document chip validation) to create a seamless experience for travelers.



### **Identity Verification**

Enable high assurance identities that empower citizens.



#### **ID** Issuance

Issue safe, secure digital and physical IDs in high volumes or instantly.



## **User Identity**

Elevate trust by protecting identities with a broad range of authenticators.



#### **Machine Identity**

Issue and manage strong machine identities to enable secure IoT and digital transformation.



#### **Digital Signature**

Use secure, verifiable signatures and seals for documents.

For more information 888.690.2424 +1 952 933 1223 info@entrust.com entrust.com

## **About Entrust Corporation**

Entrust keeps the world moving safely by enabling strong identities, secure payments, and protected data. We offer an unmatched breadth of solutions that are critical to the future of secure enterprises, governments, the people they serve, and the data and transactions entrusted to them. With our experts serving customers in more than 150 countries and a network of global partners, it's no wonder the world's most entrusted organizations trust us.













