iDEnTrip

Identity Linked Paperless & Automated Passenger Verification for Seamless Airport Journey

powered by Biocube – Globally unique, Patented, multifactor & multimodal biometric identity platform

Biocube
Redefining Identity

INTRODUCTION

Getting through security checks and reaching the boarding gate presents several obstacles for travelers. Fear of misplaced identity papers, having to produce identification documents at every stage, subjecting oneself to a personal check, luggage inspections, lengthy lines, and many other factors cause a great deal of anxiety among travelers attempting to complete airport security.

If biometric technology is utilized to optimize the airport experience alongside immaculately accurate biometric security, all of these issues could be avoided. The adoption of biometric technology significantly simplifies airport travel to the point that passengers can board a flight with their bags without possessing passports or tickets.

Biometric technology, such as face recognition technology, iris pattern scanning, fingerprint scanning, and voice recognition, may improve airport security inspections.

INDUSTRY TRENDS

As technology continues developing and the aviation industry faces a pressing need to improve efficiency, more airports and airlines will likely adopt artificial intelligence and high-tech data management solutions and shift customer expectations.

Airlines and airports will benefit from improving their apps to include more streamlined, holistic information for travelers. In addition, integrating digital processes to minimize physical interactions between passengers and airline staff enhances passenger safety and sanitization.

- **65% of passengers are willing to share personal data for better security.**

- **72% believe that automated immigration is faster & secure.**

- **47% prefer to check in using a smartphone.**

- **46% of passengers prefer Bio-ID instead of paper & use a biometric token to board the plane.**

> Using cutting-edge technologies like AI, biometrics, Machine Learning (ML), and validated passive liveness detection, **IDenTrip** adheres to regulation and unambiguously establishes its customers' digital identities.

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USE CASE CHALLENGES

Digital transformations enable airports to revolutionize their operations with automated processes and tools. However, as with any change, airports will face challenges throughout the digital transformation process.

One of the biggest challenges in digital airport transformation today is data privacy and transparency. Only English or one of the few languages available on airport signage, information is not available in a simple way in their language.

#1 **Long Waiting Time in Queues at Security, Baggage Drop, and Boarding Gate:** As per the TSA study at US airports, the average peak time is 30 minutes at one checkpoint.

#2 **A Lot of Paper Document Handling by Passengers and Checking by Authorities is a Hassle**: An IATA survey says 45% of passengers prefer biometric ID instead of a paper passport.

#3 **Risk of Identity Theft and Fraud Leading to Financial Loss and Severe Security Threat**: In 2020, IATA estimated the total cost of fraud as $1 billion.

#4 **High-Cost Kiosks and Specialized Hardware:** CAPEX heavy and not easily scalable.

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How Does **IDenTrip** Make a Difference in the Lives of Passengers, Airlines, and Airport Staff?

IDenTrip offers a seamless passenger journey by ensuring that bio-IDs are linked with airport documents, diminishing the long waiting queues at airports.

It enables airlines to maintain a smooth flying experience and retain frequent flyers. Simultaneously, it alerts unwarranted people at the airport to the authority and helps diminish threats to passengers.

KEY FEATURES

Explain your the most powerful factor to define how the company daily operations can be done.

Self-Service Passenger Onboarding
Remote passenger onboarding from Mobile/ Web with integrated ID check.

Seamless, Zero Paper-based Journey
End-to-end travel with Digital Bio-ID. No Paper ticket/document check.

Enhanced Travel Experience
Zero friction, faster travel – no queueing – assured high quality travel experience
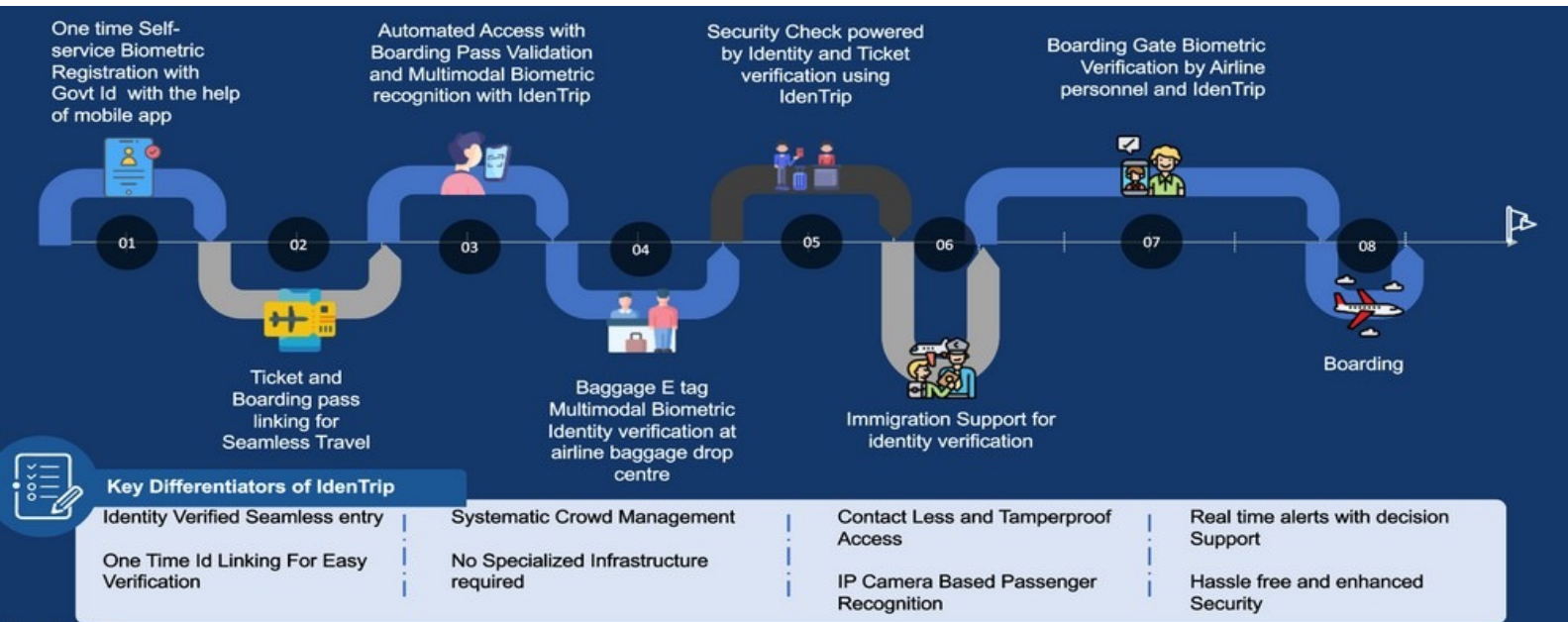
Assured User Privacy
Zero risk of data breach/ hack – AES256 encrypted
+ source validation for zero impersonation

Faster & Efficient Travel
Bio-auth at each step – Enhanced Security. Zero manual check -Increased Efficiency

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PROCESS FLOW

One time Self-service Biometric Registration with Govt Id with the help of mobile app

Automated Access with Boarding Pass Validation and Multimodal Biometric recognition with IdenTrip

Security Check powered by Identity and Ticket verification using IdenTrip

Boarding Gate Biometric Verification by Airline personnel and IdenTrip

01 02 03 04 05 06 07 08

Ticket and Boarding pass linking for Seamless Travel

Baggage E tag Multimodal Biometric Identity verification at airline baggage drop centre

Immigration Support for identity verification

Boarding

Key Differentiators of IdenTrip

Identity Verified Seamless entry	Systematic Crowd Management	Contact Less and Tamperproof Access	Real time alerts with decision Support
One Time Id Linking For Easy Verification	No Specialized Infrastructure required	IP Camera Based Passenger Recognition	Hassle free and enhanced Security

AI BIOMETRIC & DOCUMENT VALIDATION

Biocube's multimodal biometric platform with a 5-multifactor that performs various quality checks & validations to ensure the genuine user is doing the biometric authentication with maximum accuracy.

We offer 1200+ features with zero specialized hardware.

Biometric ID Linking

Face with Liveness + Multi-factor Biometrics.
- Easy self-service onboarding with Face & other biometric factors.
- Integrated passive liveness check – prevents deepfake or spoofing attacks using photos or videos.

Auto Defect Detection & Correction
- Our ML model auto-detects blurriness, glare, lighting condition, multi-face in the frame.
- Distance & orientation check in the face image and ask the user to recapture the face image again.

Passport Link with Validity Check
- Passport validity & genuineness check through AI.
- Photo on the Passport match with Face
- Extract data by OCR & match with PII.

Document Validation & Boarding Pass Linkage

ID validation & Orientation Check
- Our ML model auto-detects blurriness/glare/reflection/orientation in the document image and ask the user to recapture the picture again.
- The AI model can also regenerate high-quality face images from blurred/ glare/reflection/orientation face image for accurate matching.

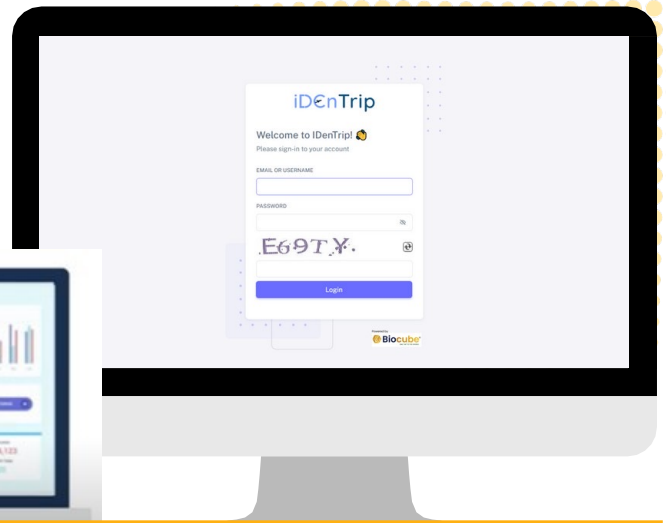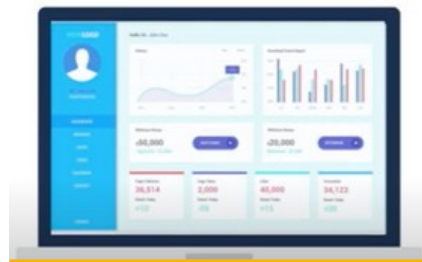### Boarding Pass QR Scan - Validate & Link
- Passengers will scan their boarding pass's QR/Bar code based on the QR details the travel information will get fetched.
- The system will check whether the first & last name of the passenger matches that of the primary bio-profile and validate.

Encrypted Data Replication at Airport Database
- The system understands the airline & airport details linked with each PNR and replicates the user info + biometrics in an encrypted fashion on the respective database
- Auto-flush data after 4 hours from the journey.

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Comprehensive Admin Check

Get all your user data, digital ID copy, etc., on the unified platform. Data logs with customized reporting are available at the fingertip. In case of any anomaly, the administration gets an error flag and can do a necessary manual intervention.

Enhanced Travel Experience
Seamless Terminal Entry to Boarding

Zero manual checking of paper documents makes the processes fast & frictionless and provides a smooth journey experience for low-risk users.

Low-cost Remote Identity Verification

Methods are available that can be utilized to fulfill KYC requirements for customers.

Paperless Journey

No need to carry documents; instead of paper, passengers use bio-ID to board the plane.

Assured Security in Transit Hub

Zero-risk of data breach/hack. User data transiting should be protected against tampering. User biometric & identity information remains fully encrypted.

Situational Awareness for Airport & Airlines

Verification of the bio-pass of passengers in an automated manner at each checkpoint provides a holistic overview and monitoring by involved stakeholders. It helps in overall capacity planning & recommendations.

Automated Reporting

Fully automated admin panel for the payment platform to get comprehensive data on user check-in and ID details.

About Us

Biocube proposed a multifactor secure authentication workflow for passengers' seamless & secure journeys with existing devices to enhance the security of air travel systems.

Our proposed method forms a baseline for a mobile automatic touchless passive liveness **Face/Voice/Palm/Fingerprint/Iris** authentication & recognition system that helps the passengers check in quickly from the comfort of their homes using **Bio-ID**.

With business and leisure travel changing significantly, biometrics and AI could help the global travel industry in a big way.

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