MATERNA
IPS intelligent
passenger
solutions

Biometrics
The One ID Journey

Biometric Solutions - The IPS Approach

A common goal of airlines and airports is to provide passengers with a pleasant experience and efficient airport amenities before their departure. Biometrics can help eliminate major challenges created by increased passenger volume, enhanced security requirements and new efforts to minimize the risk of disease.

Materna IPS sees these challenges as an opportunity to further establish biometric solutions in the market following IATA's vision of creating a passenger experience that meets all industry requirements.

As outlined by the IATA One ID concept, collaborative identity management across the end-to-end passenger process combined with biometric recognition is key at all touchpoints (Check-in, Bag Drop, Access Gates) allowing passengers a truly document-free journey. In addition, airports and airlines will benefit from increased security, as advanced biometric recognition algorithms make traveling with false identities nearly impossible.

The One ID Journey

As a strategic partner of the IATA, the Materna IPS biometric solution follows the IATA One ID concept and enables secure and seamless travel with a single biometric token. This token can be reused for biometric identification throughout the journey, significantly reducing the number of repeated identity checks.

Main Benefits:

Increase efficiency by higher passenger throughput

Nearly document-free journey improves passenger experience

Increased security thanks to advanced biometric recognition algorithms

Money savings due to reduced staff involved in manual ID checks

Make your face your One ID for all touchpoints

Check-in   SBD   Gate

Biometric Use Cases

ID Check [1:1] or [1:n]

- Verifies the passengers' identity
- Present a valid boarding pass & a government issued ID
- A 1:1 comparison is then made between captured camera image and the image on the ID document
- A 1:n comparison is made against gallery for pre-enrolled passengers

Enrollment

- Local enrollment by presenting a current travel document & government issued ID
- Matched captured image is temporarily stored in dedicated database
- Pre-enrollment through other sources also available for use
- Data becomes available for any other biometric touchpoint later on
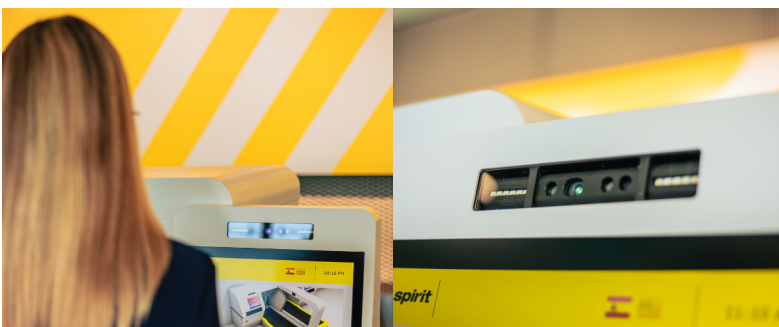
Identify [1:n]

- Enrollment & ID Check completed
- Document-free journey experience
- Capturing the passenger's face & comparing it to previously stored data
- Matching process is referred to as 1:n whereas "n" represents a large set of biometric data in a database (incl. 3rd party databases)
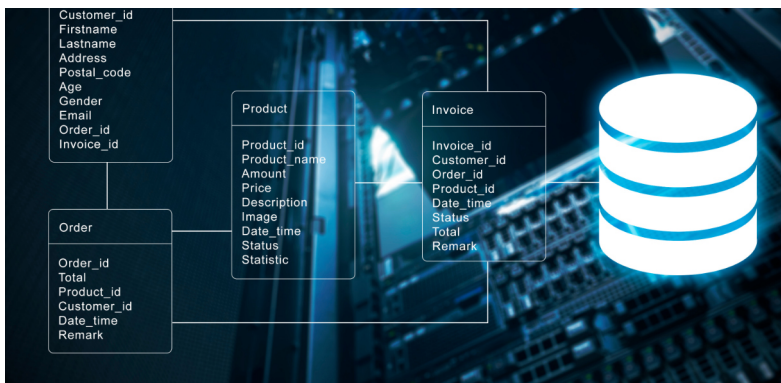
It is the details that make us stand out
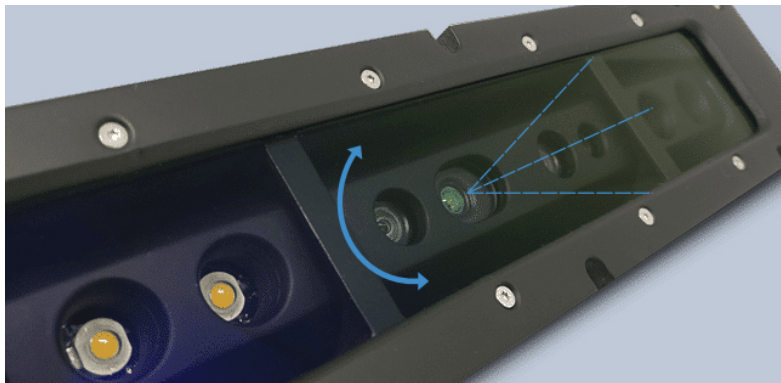
Automatic Camera Tilting

- Reliable recognition, regardless of the height or movement of the passenger
- Automatic focus and selection of suitable photo without the passenger having to adjust to the camera, including liveness detection

State-of-the-Art Backend

- Privacy by design
- All relevant information visualized in a dashboard
- Always in control of processed data
- Customizable infrastructure due to multi hosting options

Advanced Gallery Management

- Pre-sorting of database records, e.g., by flight data
- Quick 1:n matching process
- Identify passengers even on-the-move resulting in no queues at gates

References

Tokyo HANEDA (HND)
- Installed 104 SBD units T2 and T3 of HND in 2020
- Face Express system with 1:1 matching was added in 2021

Spirit Airlines (LGA, ORD, LAX, DFW, ATL)
- Started our journey with Spirit in 2019
- Installed several self-service stations across the U.S. w/ integrated biometric identification

Barcelona-El Prat Airport (BCN)
- Biometric pilot project at BCN started in 2021 in cooperation with AENA
- First time in Europe, that biometric identification enables passengers to experience a document-free journey, using SBD's & automated security / boarding gates after real-time authentication

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