HERMES
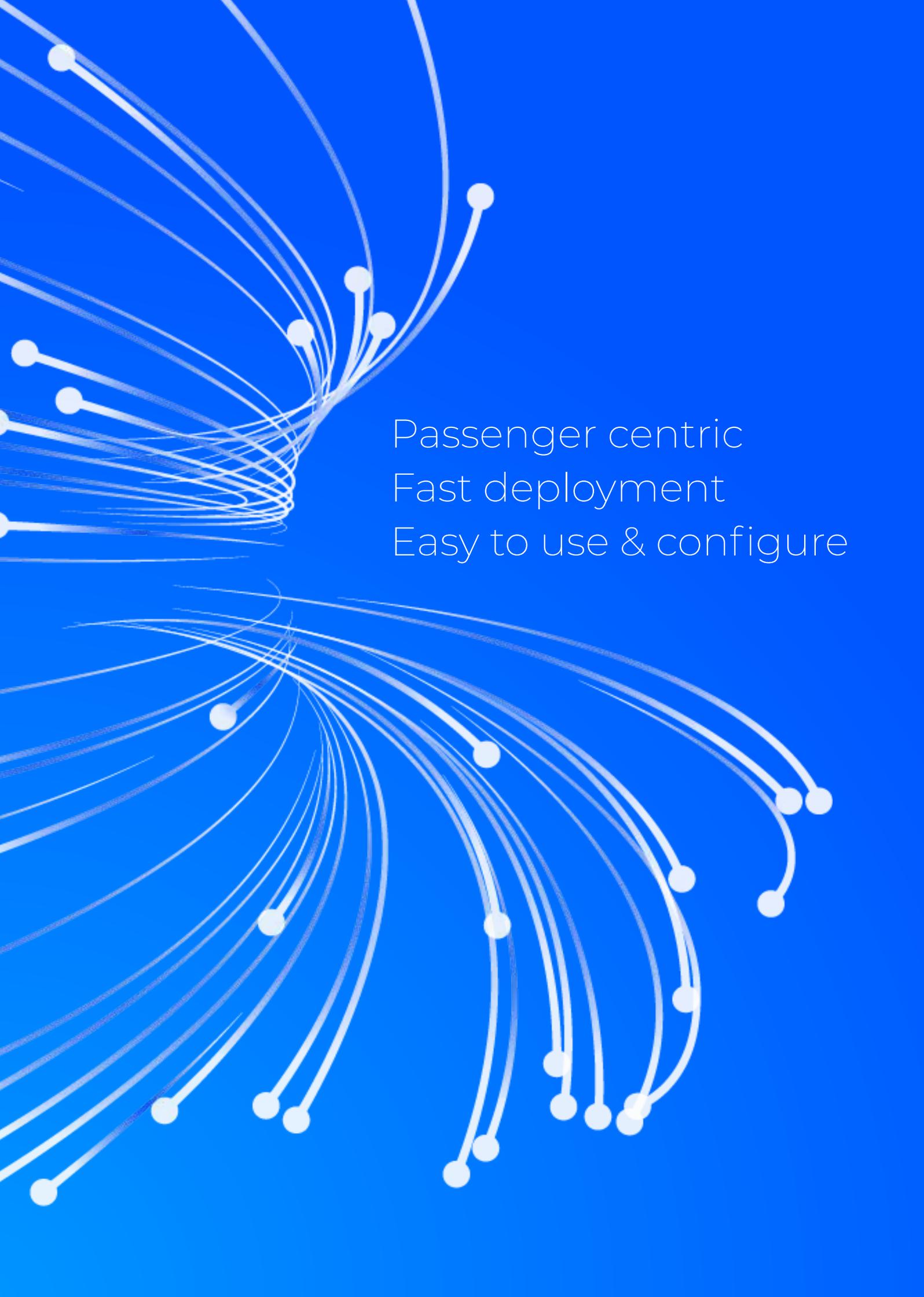
Border Management and Passenger Screening

WCC HERMES

Passenger centric
Fast deployment
Easy to use & configure

Challenge

Airlines alone welcomed around [4.2 billion](#) passengers per year pre COVID-19 travel restrictions. While only a few of these passengers may pose a security threat, their identification is essential. As a result, in 2018, the UN mandated the implementation of Advance Passenger Information (API) screening.

To identify and manage risk, border authorities use passenger data available to them before passengers arrive at border checkpoints. Early risk alerts and early watchlist hits provide substantial assistance to border personnel.

A superb passenger screening system is fast to implement, easy to use and mantain. It helps prevent and fight terrorism, smuggling, visa fraud, visa overstays, illegal immigration, and other international crimes, while facilitating smooth and secure processing of legitimate travelers.

Typos and terrorists – what's at stake?
Watchlist data quality is not always optimal, and discrepancies can have serious consequences. The Boston Marathon bomber story is just one example. In this case, Federal agencies overlooked the suspect because his name in travel documents was inconsistent.

Terrorism cannot be prevented with a single keystroke. But one keystroke can create a crack in the defenses that allow terrorists to slip through.

WCC's MITRE Award-winning "human-like" matching resolves such issues. It easily handles spelling variants, typos, and other data quality problems. As a result, the number of manual checks border officials need to carry out is reduced.

Solution

HERMES is a person-centric, integrated border security solution for screening Advance Passenger Information (API) and Passenger Name Record (PNR) data.

HERMES enables border control agencies worldwide process large quantities of passenger data at airports and seaports. It is flexible, ready-to-use, easy to implement, configure, maintain, and operate.

Three-step approach:

1. HERMES imports any type of passenger lists, upon receipt it performs data quality check, and it provides feedback if a message contains errors. WCC's advanced matching features link and enrich passenger data, using the combination of API and PNR data if available. HERMES checks the data against various watchlists and flags any hits. It can also match data against pre-configured risk assessment rules established by border experts and machine learning algorithms to flag suspicious passengers.

2. All passengers are matched against configured watchlists and rule-based targets ("risk profiles") in order to assess their risk. Data from national law enforcement controlled databases can be loaded into and synchronized with HERMES to use as watchlists. People can also be added manually to a short-term watchlist if necessary. HERMES provides external connectivity to international watchlists like Interpol or the EU Schengen Information System (SIS). Rule-based targets can be created and maintained by officers or analysts.

3. Users can perform advanced investigations using available passenger data, and very little training is needed due to the easy-to-use interfaces. HERMES visual tools provide immediate insights into traveler actions, routes, and links to other travelers. Its analytics monitor illustrates the overall effectiveness of the system for easy management.

DATA

Data quality

Extract info

RISK ASSESSMENT

National Watchlists

International Watchlists

Rule-based Targeting

Configuration & Management

INVESTIGATION

Hit Screen

Heatmap

Investigation Tools

Analytics

Multi-cultural name matching is another significant security pitfall. For instance, take the Arabic name محمد – Mohammed. Transliteration into the Latin alphabet can yield many different spelling variants, such as Muhamet or Muhammed. Identification documents may also contain diminutives (Bill for William or Sasha for Alexander), and patronyms too (Ivanovich or Ivanovna, son or daughter of Ivan).

By the same token, similar issues arise with international variants of place names. Watchlists may, for example, store the Dutch city of The Hague as Den Haag (Dutch), The Hague (English), La Haye (French), La Haya (Spanish), and so on.

Ambiguous dates pose yet another hurdle: does 06/08/1999 stand for June 8, or August 6? HERMES catches and matches any such variants with ease.

Features and benefits

Full watchlist matching functionality load data from national law enforcement-controlled databases to use as watchlists.
Connect to national and international watchlists or integrate with systems already connecting to these (e.g. Interpol SLTD).
Fuzzy matching on incomplete or incorrect watchlist data.
Short-term local watchlist functionality and temporary "be-on-the-lookout-for" alerts.

Connectivity to airline and ship data providers of passenger data.

Risk assessment based on expert profiles. Easy to edit and/or add your own.

Compliance with national privacy legislation. Adherence to WCO/IATA/ICAO standards.

Support of UN/EDIFACT PAXLST format and PNR GOV and CUSRES standards. Automatic load balancing, failover, and disaster recovery capabilities.

HERMES Hit Screen

The need for passenger screening

Compliance with mandatory UN regulations
ICAO, a specialized UN agency, declared Advanced Passenger Information (API) systems mandatory for all member states in 2018. Meeting this requirement is an important step towards secure and fast border management processes.

Optimal security and flow at the border
Governments and citizens expect borders to be secured without blocking passengers flow.

Meeting strategic goals in border management
Border management systems are becoming increasingly interconnected. New technologies allow for new ways to prevent and fight international crime, terrorism, and illegal immigration. A good passenger screening system helps countries harness these technologies and stay on top of border security in order to achieve long-term strategic goals in integrated border management.

Why choose WCC's HERMES?

1. Flexible and customer-centric, offering expert consultancy and 24/7 tech support

2. Easy to configure, use and mantain

3. Supports international identity standards including ICAO, NIST, and IEC/ISO

Advance Passenger Information - API
Advance Passenger Information, part of the UN EDIFACT standard, is data sent to the destination border authority. It is usually sent in batch mode, a single manifest for all passengers onboard. Interactive API (iAPI) is also possible, individual passenger data sent in real-time gives border authorities forewarning allowing for boarding denial when necessary. API includes the passenger's name, birth date, nationality, country of residence, gender, and travel document type and number.
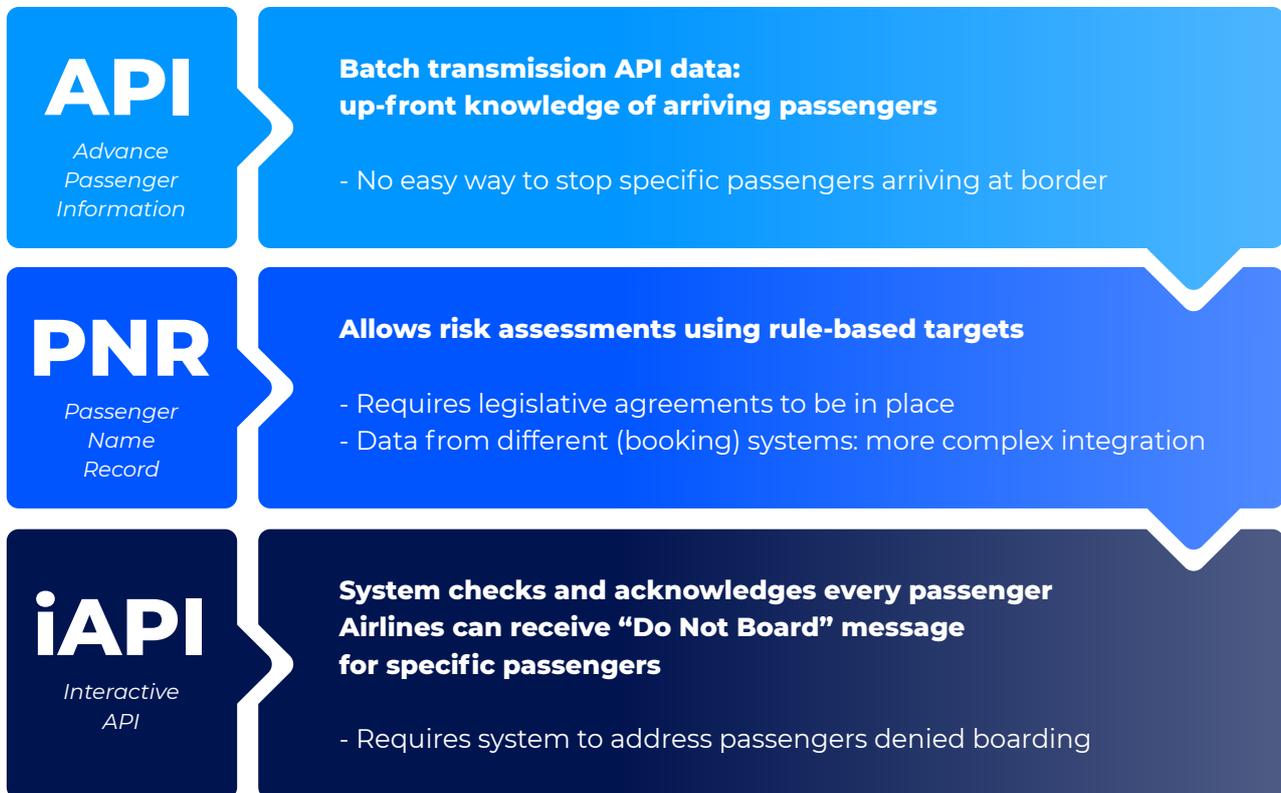
Passenger Name Record - PNR
Passenger Name Record includes booking information of passengers or groups of passengers travelling together created when booking the travel. It includes the travel itinerary, and information on payment method, frequent flyer status, seat allocation, food preference, final destination, and more.

HERMES
HERMES is a flexible API / PNR software solution enabling border control agencies worldwide process large quantities of passenger data at airports and seaports. Fast to install, easy to use and maintain, thus lessening costs, HERMES is a unique product of its kind. Successfully deployed at airports worldwide, and at seaports in Europe, HERMES runs on WCC ELISE Smart Search and Match technology software, making it a future-proof solution that supports API/PNR, and Interactive API (iAPI).

Passenger screening lifecycle

API
Advance Passenger Information

Batch transmission API data:
up-front knowledge of arriving passengers

- No easy way to stop specific passengers arriving at border

PNR
Passenger Name Record

Allows risk assessments using rule-based targets

- Requires legislative agreements to be in place
- Data from different (booking) systems: more complex integration

iAPI
Interactive API

System checks and acknowledges every passenger
Airlines can receive "Do Not Board" message
for specific passengers

- Requires system to address passengers denied boarding

Interactive Advance Passenger Information (iAPI)

HERMES now supports the processing of Interactive Advance Passenger Information (iAPI). This interactive process allows commercial airlines to provide API data to the responsible border control agency of destination prior to take-off. This information helps commercial airlines determine whether or not the passenger has the appropriate travel document to enter the country of destination (for example, Visa or Electronic Travel Authorization [eTA]). Once the API data is received by the country of destination, the responsible border control agency electronically sends an "OK to Board" or "Do Not Board" message to the airline's departure control system before the passenger boards a flight.

The main advantages for border control agencies, PIU's and/or national targeting centers are:

- Know upfront who's traveling to your country
- The ability to stop potential threats before they board the plane
- Automated travel authorization checks
- Direct connections with the airline departure control system (DCS)
- Search for known and unknown risks profiles

About WCC

A leading advanced solutions provider for Public & Private Employment Services and ID/Security government agencies. Built on its unique search & match platform, WCC software solutions see 1/3 billion people every day, enabling organizations to seamlessly capture, generate, and analyze big data from multiple sources gaining valuable insights paramount to effective decision-making.

Our team of professional services experts provides exceptional support and consulting, allowing our customers to maximize their investment.

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