

ALIX™

AI-powered luggage identification solution

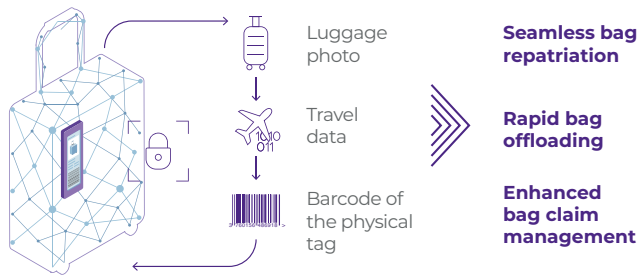


Existing luggage identification solutions could benefit from modernization to increase efficiency. Today, operating costs associated to baggage repatriation, offloading bags in case of no show passenger or managing damaged bag claims are time and resource consuming. With global passenger traffic forecast to double over the coming decades, these issues are set to compound even further.

IDEMIA Public Security's AI-powered luggage identification solution, ALIX™, offers an innovative approach to help the travel industry enhance luggage management processes, reduce expenses and ultimately improve the passenger experience.

Powered by **Artificial Intelligence** and **biometrics**, ALIX helps digitalize and automate the luggage identification process by providing each bag with an **augmented digital tag**. This scalable innovation—fully aligned with IATA's Global Baggage Strategy—will improve airport, airline and ground operations by simplifying and accelerating the identification of bags, **using only their photo or their information**.

All elements are securely combined to create the augmented digital tag



ALIX comes with two main advanced, plug and play modules:

- > **ALIX Core:** performs accurate image-processing, converts bags' data into an augmented digital tag, performs fast search and provides accurate matching results.
- > **ALIX Arch:** provides high-quality captures of the five visible sides of the bag (automatic or manual mode) even moving in dim lighting.

ALIX™ in action today

Drawing upon decades of expertise in biometrics, image processing and Artificial Intelligence, IDEMIA is your #1 partner to help you implement high-performance solutions. Our top-ranking algorithms combined with our high-quality image capture devices deliver operational efficiency to the ever-evolving requests of the air travel industry.

Developed in partnership with Air France, ALIX is currently being used at Paris CDG airport by Air France's operators to help them find bags that have lost their physical tags. With a high identification performance rate (exceeding 90%), operators find bags without names and tags on a daily basis.



Optimized operations

- > SaaS operating model
- > Off-the-shelf and industrialized modules, supporting high level of performances



Easy to integrate

- > Smooth integration into the existing luggage handling ecosystem
- > API Compliant with IATA standards



User-friendly

- > Minimal training requirements
- > Accommodates various use cases



Privacy by design

- > Embedded data protection
- > Secure access to data

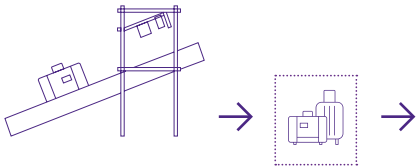
» Redefining baggage processing. Optimizing operations.

**BAG IMAGES CAPTURE
AND INFORMATION
COLLECTION**

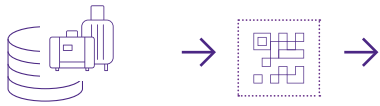
**BAG INFORMATION
MANAGEMENT &
IDENTIFICATION**

**BAG
SEARCH**

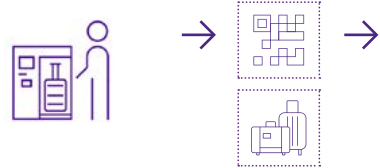
AT THE CONVEYOR



BAG INFORMATION MESSAGES



AT THE BAG DROP



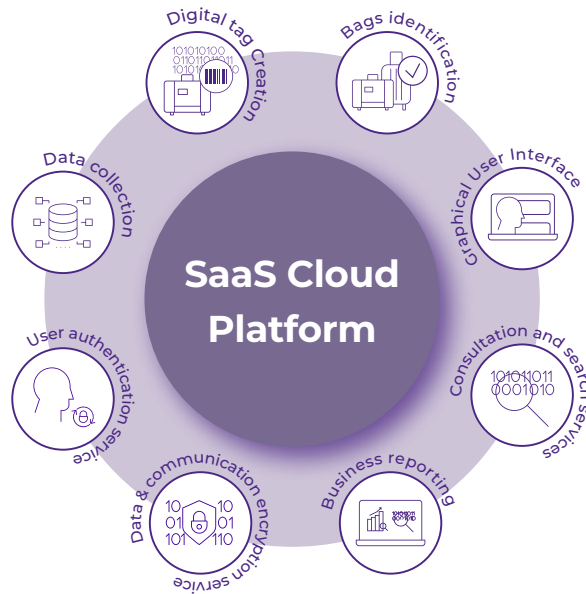
BAGS REPATRIATION AT STORAGE FACILITY



BAGS OFFLOADING ON THE SPOT



DAMAGED BAG CLAIM AT THE DESK



ALIX™ additional benefits

OPTIMIZED OPERATIONS

- › **Rapid** start-up: cloud-based central platform
- › **Field-proven** luggage identification algorithms
- › **Embedded AI learning** capabilities for continuous quality control and performance enhancement
- › **Real-time matching results** display
- › **Eco design** with low energy consumption
- › **Autonomous** system with supervision capabilities
- › **Ready** for additional operational use cases

PRIVACY BY DESIGN

- › **State-of-the-art** IT security system
- › **Secure** web services, and **encrypted** communications and data
- › **Secured authentication and access** based on the user profile
- › **Compliant** with European General Data Protection Regulations (**GDPR**)

USER-FRIENDLY

- › **Compatible** with all types of luggage
- › **Convenient**: does not require any modifications to the traveler's luggage
- › **Easy to use** Graphical User Interface
- › **Customizable** business process using standard APIs
- › **Automatic** business reports generation

EASY TO INTEGRATE

- › **Standard** APIs for simple integration with other applications
- › **Ready** to use web interface
- › **Scalable** for future capacity demand with no additional work
- › **Compliant** with IATA Baggage Information Messages Recommended Practice (RP 1745)
- › **Easy** rollout process for ALIX Arches