

# **KRYPTONAIT**

KRYPTON AI TECHNOLOGIES PRIVATE LIMITED



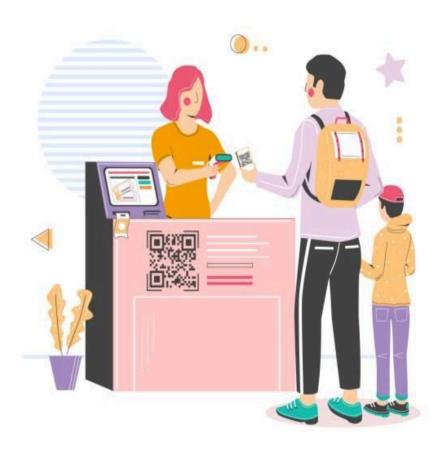
# SMART TICKET VERIFICATION

A fast, secure, and contactless solution that streamlines entry, reduces queues, and enhances overall user experience with advanced Al-powered verification.

### Glossary

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# INTRODUCTION



As air travel rebounds and evolves, airports are under pressure to deliver faster, more secure, and contactless entry experiences. Traditional manual checks often lead to bottlenecks, errors, and inefficiencies — all of which impact both operations and passenger satisfaction.

While some digital solutions exist, they come with major drawbacks. Many are still in limited use across Indian airports, with high installation costs, tailgating risks, and higher verification times. Moreover, a lack of public awareness and system inefficiencies make these solutions unreliable for large-scale airport operations.

To overcome these challenges, Krypton AI Technologies has developed a Smart Ticket Verification Solution—a next-generation platform designed to streamline passenger entry with fast, paperless, and highly secure verification. Built with advanced technologies like gRPC, HTTP/2, and secure tunneling, it combines automation with human validation, ensuring accuracy, efficiency, and scalability for airports of every size.

### PROPOSED SOLUTION



### Step 1:

### Smart QR Code Scanning at Entry Kiosk

Passengers begin their journey by scanning the QR code on their boarding pass or digital ticket at an IoT-enabled kiosk installed at the airport entry point.

- Scalable across terminals and airports, without major hardware overhauls.
- Seamless integration with airline databases, airport management systems, and government ID platforms.
- IoT-ready infrastructure connects with sensors, surveillance, gates, and more to enable a smart airport ecosystem.



### Step 2:

### **AI-Powered Real-Time Data Validation**

As the QR code is scanned, the backend system — powered by AI — performs real-time cross-verification of the passenger's travel credentials. Key parameters validated include:

- Departure airport match to prevent wrong terminal entries.
- Date of travel confirmation to ensure boarding for the correct day.
- ime window verification to ensure the passenger is within the allowed entry timeframe.



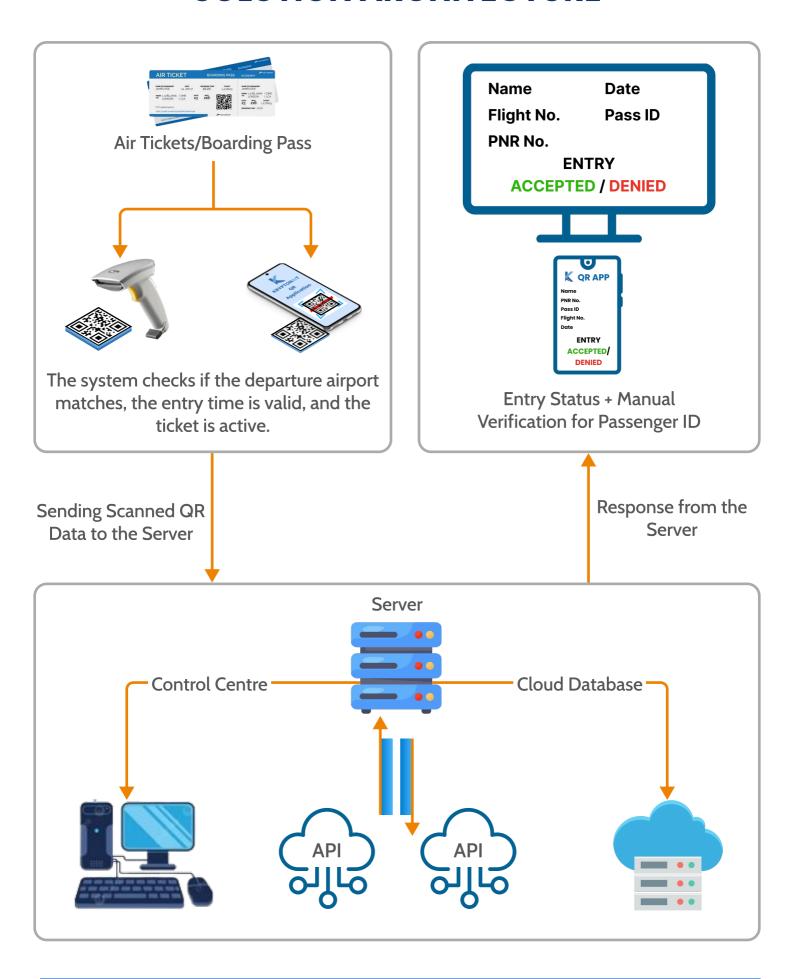
### Step 3:

### **Assisted Cross-Verification by Ground Staff**

To strengthen the security framework, a final manual verification layer is added through trained airport personnel.

- Staff quickly match the passenger's physical ID (Aadhaar/Passport) with the system-verified data.
- Any mismatches or alerts are flagged instantly, allowing for appropriate action.
- This dual-authentication approach blends AI speed with human judgment, ensuring zero compromises on safety.

### **SOLUTION ARCHITECTURE** -



### **KEY FEATURES & BENEFITS**



### **Speed & Efficiency**

Designed for high throughput and minimal delays, the system dramatically improves crowd flow and reduces passenger wait times.

- Dual-layer verification ensures passengers are validated both digitally and physically by ground staff.
- Tailgating detection prevents unauthorized access attempts behind verified passengers.
- Role-based access control protects sensitive system functions from unauthorized use.
- Encrypted communication protocols (gRPC & HTTP/2) guarantee secure, low-latency data flow.



### **Security & Reliability**

Security is central to airport operations — our system enforces it at every layer with intelligent, real-time safeguards.

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- Role-based access control protects sensitive system functions from unauthorized use.
- Encrypted communication protocols (gRPC & HTTP/2) guarantee secure, low-latency data flow.



### **Contactless & Cost-Effective**

The solution is future-ready — both in terms of user experience and operational efficiency.

- Low operating costs by leveraging existing infrastructure and reducing reliance on manual labor.
- User-friendly interfaces at kiosks ensure ease of use for both staff and travelers.



### **Scalability & Integration**

Built on modular architecture, the system is designed to adapt as airport needs grow or evolve.

- Scalable across terminals and airports, without major hardware overhauls.
- Seamless integration with airline databases, airport management systems, and government ID platforms.
- IoT-ready infrastructure connects with sensors, surveillance, gates, and more to enable a smart airport ecosystem.

### **UNIQUE SELLING POINTS**



### AI + Human Verification

Our system combines AI automation with human verification, ensuring real-time data validation while maintaining high security standards.



### **Seamless Integration**

It integrates smoothly with existing airport infrastructure and airline databases, requiring minimal changes during deployment.



### **Tailgating Prevention**

The tailgating detection feature prevents unauthorized access by monitoring entry behavior and triggering instant alerts.



### Scalable & Modular Design

The modular architecture ensures the system can scale across terminals & adapt to various airport sizes & security protocols.



### **IoT Enabled Infrastructure**

Designed with an IoT-enabled framework, it allows connected communication between entry kiosks, control rooms, and other airport systems.



### **Real-time Analytics**

Built-in analytics and dashboards offer real-time insights into passenger flow, helping authorities optimize resources and improve operations.

### **TRUSTED BY**





























### **CONTACT US**





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