



**CASE STUDY** 



**Liverpool John Lennon Airport (LPL)** is a single-terminal airport handling approximately 5 million passengers annually. As a busy regional airport, understanding how passengers move through the terminal is vital to improving operational efficiency, meeting service level agreements, and enhancing the passenger experience.

To achieve these goals, the airport partnered with AeroCloud to deploy and shape the development of AeroCloud Optic — our revolutionary computer vision-based passenger tracking system.



## Challenge

Prior to working with AeroCloud, Liverpool had explored multiple passenger tracking solutions including WiFi triangulation, Bluetooth beacons, Lidar, and manual human counting. While each method provided partial insight, none were able to consistently deliver the accuracy, capture rates, or actionable intelligence the airport needed to drive meaningful change.

Without reliable real-time data, operational teams found it difficult to test and evaluate new processes, respond to live passenger conditions, or optimize staffing and resources. The lack of visibility created a barrier to delivering both a smooth journey for passengers and maximum performance from terminal operations.



## Solution

AeroCloud engaged with stakeholders at LPL to co-develop a tailored solution — using AeroCloud Optic as the foundation. Our CTO, Ian Forde-Smith, and the data science team began collaborating with the airport more than 18 months before the product's official launch in March 2023.

Together, we defined the specific challenges of past tracking initiatives, mapped out operational needs, and shaped the scope of the Optic deployment. The project took a phased, zone-by-zone approach to ensure the technology was tested across all passenger environments — from check-in to boarding and everything in between.

Today, AeroCloud Optic is fully deployed throughout Liverpool Airport, providing a seamless view of passenger movement through key touchpoints, including:



## **Testimonial:** The holy grail

Using a combination of AeroCloud Optic Count and Track, the airport operations team now monitors real-time passenger flow against custom KPIs and SLAs. The system enables:



**Live alerts** via SMS or email for potential KPI breaches



**Scenario testing** to trial new processes and assess their impact



Operational optimisation by reallocating resources based on actual passenger behavior



**Commercial insights** by tracking dwell time in retail zones



System-wide integration through open APIs for data comparison across platforms

With complete visibility over how passengers move through the terminal, Liverpool John Lennon Airport is now able to react faster, plan smarter, and continuously enhance both performance and the passenger experience, all while maximising revenue opportunities.



Scan to watch the video:

## Looking to revolutionise your airport management?

