

# Smart Airports, Smarter Solutions: Awiros and Dell Technologies Transform Aviation with AI

By leveraging AI-driven video analytics and Dell Technologies platforms, Awiros streamlines operations and enhances passenger experience at one of India's busiest airports, transforming trolley and traffic management.



## Business needs

India's busiest airport encountered critical operational challenges in trolley and traffic management, primarily due to its dependence on manual processes. This reliance hindered the ability to efficiently allocate and track trolleys to meet dynamic passenger demand. It created challenges in addressing parking violations, resulting in congestion and revenue leakage. Effective monitoring and mitigation of issues such as over-speeding, traffic bottlenecks, and suspicious activities was also a concern.

## Business results



**10X Efficiency Boost:** Issue resolution became 10 times faster, streamlining operations.



**Auto-Closure of Tickets:** Automated resolution of self-resolving issues, enhanced efficiency.



**Scalability:** Deployed across 1,650 cameras, making it one of the largest video AI projects in Indian aviation.



**Improved Traffic Management:** Reduced congestion through intelligent monitoring.

## Solutions at a glance

- Dell PowerEdge 760XA
- Dell PowerEdge 760XD2
- Dell Precision 5860XL Tower



Dell Technologies' industry leading solutions and the ability to customize the technology as per application requirements, has helped Awiros be successful in our strategic projects over the years. Customer feedback has also reinforced our faith in Dell.

Vikram Gupta  
Founder & CEO, Awiros

Incorporated in 2015, Awiros offers the first-of-its-kind full-scale operating system for video intelligence, which enables users to create, test, train and deploy apps for image and video processing. Through a unified platform for video intelligence and a suite of 100-plus enterprise-grade applications, Awiros enables organisations to build and utilise the most advanced applications of Computer Vision and AI in everyday life. It supports real-time decision-making in safety, automation, and operations across industries, including aviation, aerospace and transport.

## Bringing efficiency to complex airport operations

Awiros' AI-based apps validated, tested and running on Dell Technologies' infrastructure platform helped streamline complex airport operations with a host of value-added services such as tracking and analysing traffic flows. By monitoring real-time video streams, these equip airport management with critical insights that enable quicker, smarter, and intelligence-based decisions.

The airport authorities could streamline workflows in trolley management using Awiros' video AI solutions to count the number of trolleys through the cameras already installed at the airport terminal. The application relies on the airport operations database and high performance compute to get the latest data on the flights' landing times as well as occupancy.

## From raw video footage to visual AI-based intel for New Delhi airport

Based on the data, staff can estimate the number of trolleys required based on the number of passengers. The next step is to ensure that an adequate number of trolleys is available at the right location at the right time. In case a shortage is detected in the app, camera footage is used to identify the available trolleys that are scattered across various zones within the terminal. Operators can then gather the trolleys efficiently and ensure they are placed in the required locations based on demand.

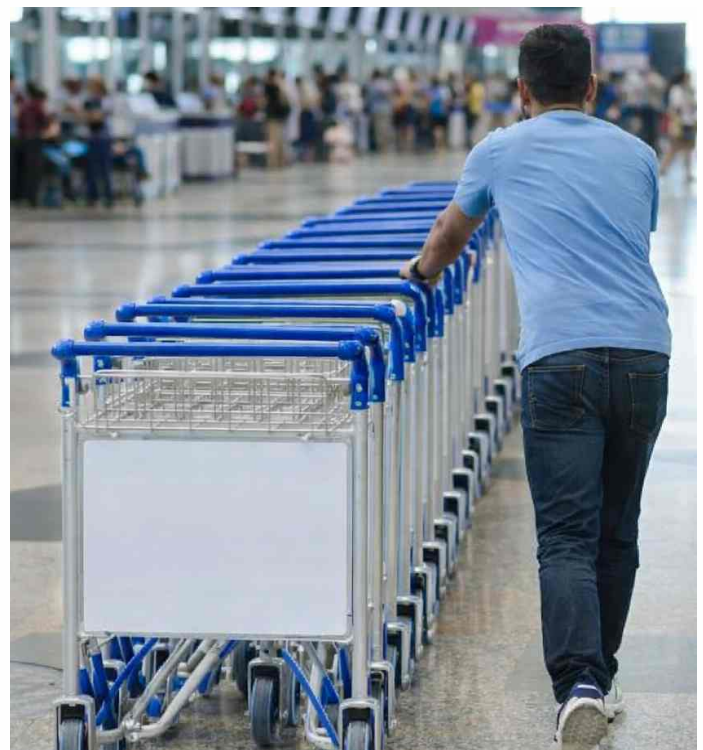
"Dell Technologies OEM Solutions has been our go-to for all our end-to-end projects over the years. Leveraging Dell Technologies' OEM Solution's ability to customize the technology as per application requirements, has helped Awiros to be successful in our strategic projects over the years. Customer feedback has also reinforced our confidence in Dell," says Vikram Gupta, founder and CEO, Awiros.

## Intelligent trolley management and traffic monitoring

The workflow uses a ticket management system, where the supervisors act on alerts received and assign the tasks to scooter operators, who are responsible for fetching and stacking trolleys on time. "This new system has made trolley management 10x faster than before. In addition, the auto-closure of tickets that self-resolve helps further boost efficiency. For instance, if a ticket is raised to report an illegally parked vehicle, and the vehicle moves away before authorities intervene, the ticket closes on its own," says Vikram Gupta, founder and CEO, Awiros.

In addition, AI-driven insights from Awiros are also enabling traffic management at the airport through accelerated intelligent traffic monitoring. Illegal parking is a common problem because airport visitors want to avoid parking fees, which results in revenue loss for the operator. In addition, the airport operator was also looking to address issues around over-speeding, traffic congestion, and suspicious passenger activity. Awiros relies on existing camera installations to monitor parking violations and send timely alerts. Number plate recognition software is used to identify vehicles that violate the speed limit.

Given that Awiros' video AI applications run complex algorithms to deliver real-time alerts, reliable GPU-based hardware is critical to process these alerts and facilitate the right outcomes.





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### Key Features of the Solution

- **Real-Time Insights:** AI-driven analytics provide actionable intelligence for quicker decision-making.
- **Automated Ticket Management:** Alerts are raised for issues like trolley shortages or parking violations, with auto-closure for self-resolved tickets.
- **Reliable Hardware:** GPU-based Dell platforms ensure seamless processing of complex algorithms.

In the long run, Awiros aspires to become the go-to development and delivery platform for video AI applications. Awiros's solutions are making an impact on a wide spectrum of areas that demand intelligent surveillance and rapid decision-making based on massive data sets. These include important contributions to India's Smart Cities & Public Safety initiatives that have helped bolster law enforcement and public safety in cities like Delhi, Bengaluru, Jaipur, Pune. Dell Technologies is our technology partner of choice.

The partnership between Awiros and Dell Technologies showcases the transformative potential of AI-driven video analytics. By addressing critical challenges in airport operations, this collaboration has set a benchmark for innovation and efficiency in the aviation industry.

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