

Asia Airfreight Terminal Co LTD

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Automated real-time monitoring enables efficient operation by RFID-based truck management system. Security has been improved while staff numbers have been reduced.



■ At a glance

Asia Airfreight Terminal Co Ltd. (AAT), a cargo terminal operator based in Hong Kong International Airport (HKIA), has introduced a RFID-based Truck Control System to improve freight handling efficiency. The installation of this system enables real-time monitoring of freight vehicle movement at the terminal, allocation of parking positions at the truck dock, and data collection for freight delivery and pickup. Overall customer satisfaction levels for AAT have also been improved by reducing waiting times for cargo vehicles as a result of more efficient use of the truck docks. RFID-based vehicle monitoring and access control has the added benefit of enhancing security and significantly reducing labor costs.

■ Installation background and issues

- Improved cargo vehicle entry and exit efficiency was sought in order to facilitate swift delivery of the enormous volume of freight handled (1.5 million tons a year), representing some 30% of all freight handled at Hong Kong's international airport.
- In order to enable quick response to clients, a real-time understanding of the actual status, such as vehicle position and progress in loading and unloading goods, was demanded.
- As vehicles of various types and sizes park at the terminal, appropriate directions to the truck dock and real-time monitoring and warnings to prevent inefficient parking were needed in order to ensure more effective use of the parking area. A reduction in the labor costs required for such monitoring was also an issue.
- In order to prevent the concealment of dangerous goods and illicit access by unauthorized individuals, the establishment of a reliable security system while identifying drivers and vehicles was also demanded.

■ Installation results

- Improved efficiency in managing cargo vehicle allocation, with effective use and optimal assignment of parking space has become possible by pre-recording information about vehicles and drivers that are permitted to enter the terminal, and matching vehicle IDs and freight information when loading goods.
- Automated identification of vehicles at the terminal gate and appropriate direction to the truck dock are now possible, so the entry and exit periods have been significantly reduced. In terms of the time spent waiting on entry, a 7- to 8-minute reduction as compared to the former system has been achieved, thus contributing to improved customer satisfaction.
- Automated real-time monitoring enables efficient operation. Security has been improved while staff numbers have been reduced.

■ NEC's Proposals

- NEC's tried-and-tested RFID solutions were proposed, so that a system could be

- established within a short period simultaneously with construction of the new terminal.
- A global total solution was proposed involving RFID readers, writers and tags made by Alien Technology (USA), and a tie-up with products from local (Chinese) corporate partners of NEC for data terminals, such as KIOSK.
- Outdoor installation had never been attempted before, so the RFID equipment was carefully tested onsite before installation.

■ Installed Products & Solutions

- ▣ [RFID Solution \(Japanese\)](#)
- ▣ [NEC Hong Kong Limited - RFID Solutions](#)

▣ [Detail](#)

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