

High Tech Boarding Pass: Solutions for Safer Air Travel

Introduction

With millions of passengers in tens of thousands of airports all over the world every year, civil aviation security is clearly a top priority. Although airline passengers now go through increased security checkpoints, the risk of identification errors increases every step of the way. Long lines, harried personnel and frustrated passengers all contribute to security vulnerabilities in this inefficient process. By the time a passenger gets to the gate, can airlines be certain that the original ticket purchaser is the same person who is boarding the plane?

A Security and Technology Mandate

To address these security concerns in the U.S., the Transportation Security Administration (TSA) is charged with deploying advanced technology to improve passenger identification, including the development of solutions to help expedite the boarding process. Leading the TSA's charge is the initiative to adopt biometric identification as the standard for passengers and airline personnel. Biometrics offers the highest level of authentication and results in a safer, more secure travel environment.

In addition to biometrics identification, mobility tools with secure wireless access offer airlines improved accountability along with real-time communication in airports. Multifunctional handheld computers enable airlines to easily identify problems, communicate security concerns and correct inefficiencies in passenger identification before it's too late. Symbol Technologies' proven solutions for data, voice, video and biometric identification are the right tools and technology for delivering advanced point-of-activity security solutions for the aviation industry.



The Biometric-Enabled Boarding Pass

At airports, passengers checking in for a flight present identification such as a driver's license, passport or national ID card. Many of these documents already include high-capacity, error-correcting 2D Portable Data File PDF417 bar code technology. Developed by Symbol, PDF417 is already a global 2D barcode standard used on driver's licenses in 43 jurisdictions in North America, on military ID cards and on national ID cards in the U.S. and in countries around the world. PDF417 provides the ability to encode biometric information, including fingerprints, photograph, signature or other biometric identification in digital form.

Point-of-Activity Security Solutions

When the ticket agent scans a passenger's license or national ID card with a Symbol handheld scanner, identification information is accessed directly from the PDF417 bar code and authenticated. If the passenger's license does not have photographic information contained in the PDF417 bar code, a photo is taken of the passenger. The new PDF417 bar code is transferred to the boarding pass, which now contains encrypted information about the passenger, including photo, flight information and valid travel dates. Once the transaction is complete, the passenger proceeds to security check-in.



With Symbol's handheld devices, screeners at any point in the airport can read, decode and confirm the identity of a passenger. The information contained in the bar code is unalterable, encrypted data, which guards against forgery and ensures document authenticity. In practical terms, the use of encrypted PDF417 is difficult to compromise, as security keys can be easily and frequently changed by the airlines in conjunction with the binding of data specific to the passenger. Symbol mobile and wireless devices are fully capable of operating in these secure environments while providing a cost effective means of instantly reading these documents.

At the gate and throughout the terminal, passenger identification can again be verified by roving airport inspectors or agents using handheld computers that are wirelessly linked to a variety of databases, including customer and "probable cause" databases. Biometric data printed on the boarding pass in PDF417 form also prevents individuals with proper credentials from purchasing a ticket and then turning over flight documentation to an unidentified person. Symbol wireless handheld devices help reveal inconsistencies in real time, helping airlines prevent unidentified persons from gaining access to the aircraft.

Seamlessly throughout the process, from the check-in counter to the security area, through the concourses, food courts and finally to the gate, Symbol delivers superior technology and practical solutions to meet the needs of many air travel security initiatives. Symbol currently works with world-class biometric companies in the areas of fingerprint, iris, and facial recognition.

For more information on these and other relevant security solutions, call 1-800-722-6234.