

SITA Automated Passport Control Kiosks

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AVIATION AUTHORITY

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The Problem



- 6 or more wide body aircraft all arrive within 90 minutes each afternoon.
- Passengers were being held on planes for up to 90 minutes until FIS cleared enough to deplane.
- Over 90% of Passengers are from Visa Waiver countries and require biometric capture
- Wait times approached 3 hours on some days

Project Objective & Overview



Objective

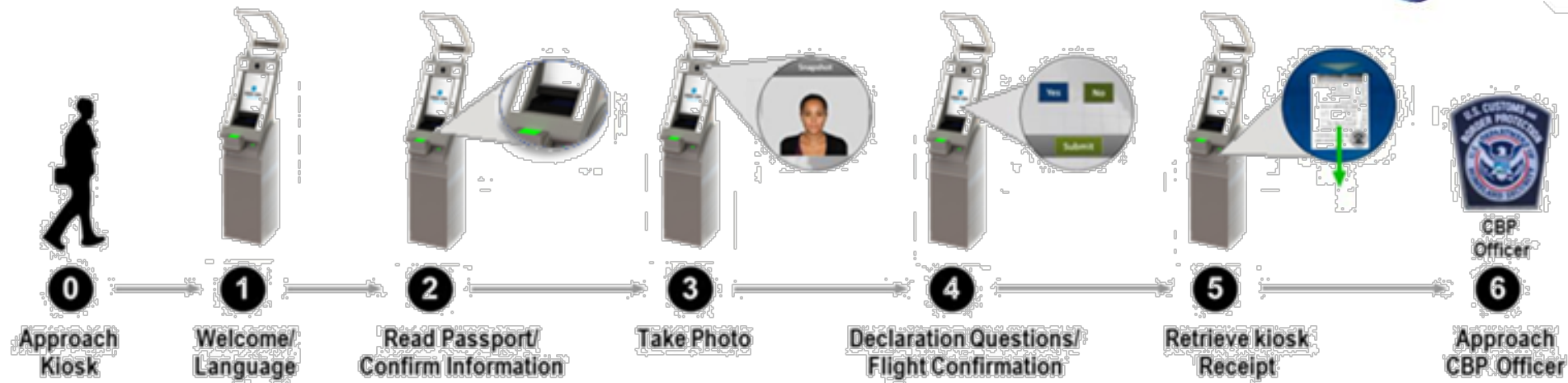
The Greater Orlando Airport Authority (GOAA) is participating in a pilot project with SITA to deploy self-service kiosks to automate the capture of travel document, biometric and customs declaration data required by the US Customs and Border Protection Agency (CBP) for immigration processing of visitors to the United States.

The kiosks will speed up processing at the Immigration Primary Line and therefore alleviate current capacity issues that are resulting in lengthy queues.

The primary functions of the kiosks are as follows:

- Capture and validation of travel document (passport) data
- Capture face and fingerprint biometric data
- Capture customs declaration data, replicating the data currently captured on the CBP form
- Hand off of the data to the CBP Automated Passport Control system
- Print a receipt for presentation at the primary line counter

The APC Process



The APC self-service Kiosk replaces the “traditional” process of filling out the declaration card.

The Kiosk process performs:

- Passport reading and verification;
- Photo and Fingerprint capture;
- Answering a set of questions at the touch-screen;



At the end of the self-service process, travelers get a receipt, to be presented to a CBP officer for final clearance.

The APC Kiosk

The Self-service kiosk is composed of:



Biometric Face Capture Camera

3D sensors for Liveness and Lighting adaptation

15" Touchscreen

Multiple Independent Lighting Sources

4-4-2 Fingerprint Scanner

Passport Document Reader

Receipt Printer

Automatic eye finding and height adjustment, with camera position ranging from 1,20m to 2,10m high.

Automatic lighting assessment and compensation.



APC Kiosk key features:

Optimized Face Image Capture



The captured face images are **fully compliant** with International Biometric Standards, such as ISO 9303 and ISO/IEC 17974, assuring the required quality for matching processes:

- **Automatic eye finding and height adjustment** – The Kiosk automatically detects the user's height, and vertically adjusts the position of the camera, in order to be perfectly aligned with the face;
- **Automatic lighting assessment** – The Kiosk is equipped with a set of sensors that analyze the environmental lighting conditions and automatically adjust the intensity of the lighting sources.
- **Automatic correction of the photo** – After capturing the photo, the vb e-Pass software performs an optimization of the image: cropping, centering, adjusting contrast and brightness;



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APC Kiosk key features:

100% Secure Process



The APC Kiosk assures to CBP and Airport Authorities that the APC process is fully secure, with a level of trust as high as those manually performed by CBP officers:

- **Passport Reading/Validation** – The Travel Document Reader performs security checks to the passport, by means of:
 - Direct, BAC, EAC (Chip and Terminal Authentication); Active and Passive Authentication;
 - Scanning the Passport's data page, using IR, UV and White lights, and optionally comparing those images with the templates of valid Passports from the issuing country.
- **Final CBP Validation** – At the end of the self-service process, the traveler receives a receipt, that will be presented to the CBP Officer for final validation.



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APC Kiosk key features: Trusted Biometrics



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The Kiosk is a very reliable tool in what concerns the capture of biometric data, not only for facial images but also for fingerprints.

- **Face image matching** – The Kiosk unique Automatic Height Adjustment and Automatic Lighting Compensation, together with the vb e-Pass software, assure that captured images are optimized for matching against the image stored in the Passport's chip (when electronic, to be sold as an option).
- **Fingerprint capture** – The fingerprint scanner is able to capture up to 10 fingerprints (in 4-4-2 mode), with the same quality patterns of the traditional CBP Passport Control:
 - The Fingerprint Scanner is compliant with FBI Appendix F;
 - The vb e-pass fingerprint software performs a post-capture image processing, including Quality Check, isolating each fingerprint and validating presence of the core;
 - The resulting fingerprint images are in compliance with the NIST/NFIQ standards, concerning the future usage for fingerprint matching.

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APC Kiosk key features: User-Friendly



The Kiosk is extremely easy to be used by any traveler, due to:

- **Large-sized touchscreen** – The main point of interaction between the user and the Kiosk is the 15” touchscreen, which can easily be used by any traveler.
- **User Display Animations** – Throughout the workflow, the user is assisted by means of animations. These are fully customizable, appealing and very intuitive, containing instructions and animations for easy self-service usage;
- **Height Adjustment** – The Kiosk can adjust its height, with a moving range of 90 cm, being accessible for users of any height, including people on wheelchairs.
- **Section 508 compliant** – An adapted model of the APC Kiosk, in compliance with Section 508 requirement of the ADA requirements, is also available.



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The Solution – APC kiosks



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The Solution – APC kiosks



AUTOMATIC PASSPORT CONTROL
U.S. Customs and Border Protection

Today Tue May 16, 2013 at 13:19:00
Given name: DIANA MARIA ALEXANDRA
Surname: LOPES SILVA GOMES ABRANTES
DOB: 01/12/74 COA: WL
COC: USA DOC: 123456789123

Present this receipt to CBP

Location: Orlando wMxVzM 16
Reference Code: PG Family Unit: 1 of 10
Airline/Flight No: CO4700
CBP Form 7662 (02/08)

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Given name: DIANA MARIA ALEXANDRA
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