



## CASE STUDY GOVERNMENT OF CANADA

### FASTER Priv-Bio Project

#### ISSUE

Currently, Canada does not have the ability to securely authenticate and biometrically screen travellers during their immigration application, resulting in border agencies requiring more time at the borders to verify identities. Moreover, the Government of Canada Canada Safety and Security Program's (CSSP) Airport Border Technologies Survey identified the challenge of securely facilitating the forecasted doubling of international travellers by 2030, while supporting the Government's economic agenda by improving travel, trade conditions, and economic growth.



#### ABOUT CANADA

Population: 37.06 million  
[2018]

#### OFFICIAL NAME

Canada

A focus for innovation was Canada's implementation of an Electronic Travel Authorization (eTA) program in 2015. Committed under the Beyond the Border Action Plan, Canada's eTA was designed to mirror the ESTA program operated by the US Department of Homeland Security, which is intended to screen visa-waiver program travellers. Prior to the introduction of these programs, governments had almost no information on visa-waiver individuals before they presented themselves for entry clearance at an immigration desk.

Additionally, visa-exempt extremist travellers were identified as a top threat in the 2014 Terrorist Report and UNSC Resolution 2178. ESTA and eTA provide a great deal of information; however, it is limited to text entered by the applicant.

#### SOLUTION

The FASTER Priv-Bio (Facilitation And Secure Identification of low risk categorized Travellers and Extremist TravellerRs) project was initiated, running from 2015 until 2017. FASTER Priv-Bio was a unique collaboration between Immigration Refugees and Citizenship Canada (IRCC), the Canada Border Services Agency (CBSA), WorldReach Software Corporation, and multi-disciplinary experts in the fields of biometrics, privacy, security, and border management. Funded by DRDC – CSSP, WorldReach, with its collaborators, developed a set of technology tools to be used to better screen eTA applicants and increase data integrity from individuals entering the country.

WorldReach was responsible for the overall concept of the project, and engagement of government partners.

FASTER Priv-Bio established an option for an innovative “end-to-end” screening process for millions of eTA applicants. This process leverages the capabilities of the ePassport and smartphones' Near Field Communication (NFC) and was built complying to Privacy by Design (PbD) principles, with privacy experts as project team members.



#### INDUSTRY SECTOR

Government Travel and Citizen Services, Passport and Secure ID, Seamless Traveller Journeys

#### PRODUCTS DEPLOYED

Secure ETA™ Mobile App, Know Your Traveller™ platform



# CANADA



## PROJECT FACTS

Contract Award: August 2015  
Start: 2015  
End: March 2017

## TECHNOLOGY DEVELOPMENT

Various microservices (ex. Photo QA service, Facial Match Service, ePassport Validation service, ePassport Signature Validation service);  
Faster Mobile API;  
Android App;  
NFC Document Scanning;  
Optical character recognition of the Passport's MRZ

## EXTERNAL INTEGRATION

Integration with CBSA Back Offices

## OPERATES ON

Windows OS  
Windows IIS  
SQL server  
Android OS  
WiFi or 3G/  
4G connection



FASTER-PrivBio project prototyped technology for the eTA process that would remotely screen individuals through a combination of facial recognition and biographical data. This, then, quickly and efficiently vets travellers by reading their ePassport chips. Through smartphone NFC capabilities, applicant biographical and biometrics from secure ePassports are read and smartphone cameras and facial recognition software match the ePassport facial images and self-photos (selfies). The information is compared to watchlists and national databases, affording IRCC and CBSA more time to react to any possible threats. A 2D barcode is issued and an eTA confirmation is provided to applicants for verification and expedited port of entry clearance into Canada.

An additional component of the project demonstrated the travel credential whereby the applicant's journey began with the creation of an Renewable Biometric Reference (RBR) to link an approved travel credential, without storing the traveller's biometrics or biometric template, in an encrypted token on the traveller's smartphone.

Travellers are able to use facial biometric at a kiosk in the airport to confirm that the token on their smartphone and the passport they are using both belong to them. Allowing the traveller to be cleared for entry without stops at secondary, and potentially, without border service officer intervention.

The findings of end to end demonstrations, running September 29, December 13 and 14 2016, concluded that the FASTER PrivBio objectives, prototype, and work were all on target to match the overall direction of the project as established by IRCC and CBSA.

FASTER-PrivBio is also consistent with the spirit of the Canada/U.S. Beyond the Border Action Plan commitments, working to build a common North American approach for screening travellers and providing cross-agency/jurisdictional (IRCC, CBSA) value through the collected data.

## REFERENCE

[http://cradpdf.drdc-rddc.gc.ca/PDFS/unc292/p806004\\_A1b.pdf](http://cradpdf.drdc-rddc.gc.ca/PDFS/unc292/p806004_A1b.pdf)

<https://www.canada.ca/en/defence-research-development/programs/public-safety-and-security.html>

## ABOUT WORLDREACH SOFTWARE CORPORATION

WorldReach Software helps ensure traveller safety and security worldwide through its systems for government immigration, passport, border management and consular organizations. WorldReach supplies secure eID/Travel Document issuance, remote identity and document verification services and consular software, including the Know Your Traveller™ (KYT) innovative platform/processes. KYT is a highly secure and user-friendly innovative identity verification process for: Electronic Travel Authorization; eVisa; Visa; Registered Traveller Programs; online passport renewal; airport security facilitation programs and digital services delivery. With the KYT platform as the core, our product suites, VisaReach™ (Secure ETA™) and IdentityReach™ can remotely verify that the traveller is who they say they are by combining smartphone reading and comparing the traveller's ePassport secured facial image with a live selfie, including ePassport validations and liveness detection to help prevent fraud.

WorldReach staff are intimately familiar with the international technical standards for secure travel documents, based around ICAO Document 9303 and are active participants in standards setting bodies for seamless borders, identity verification and identity documents as well as biometrics.



## REACHING TRAVELLERS AND CITIZENS ABROAD

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