Entrust Collaborates on Canada Chain of Trust Project

Challenge

According to the UN World Tourism Organization, the tourism sector was in a period of sustained growth pre-COVID-19, with air travel being the most popular mode of transportation. The increase in traffic – coupled with a lack of resources and space at airports – gave rise to the growth of seamless travel and border initiatives. This has been accelerated by COVID-19, given the recent emphasis on safe and touchless travel and borders.

In response to these issues, Entrust (formerly WorldReach) and government partners embarked on a collaborative project to reduce wait time for admissible people crossing the Canadian border. The Canadian Border Services Agency (CBSA) also identified the need to improve information management to process people quickly and securely. The ability to facilitate the clearance of low-risk travelers, while detecting and/or deterring potential terrorists/criminals before entry, is of critical importance to the Government of Canada. The Chain of Trust project partners came together through a call for proposals from the Centre for Security Science, which is managed by Defense Research Development Canada. Entrust worked with government partners Immigration, Refugees and Citizenship

Canada (IRCC) and CBSA, as well as Face4 Systems and the University of Ottawa on the initial prototype. The subsequent pilot involves CBSA, Face4, and the Greater Toronto Airport Authority (GTAA).

The Chain of Trust pilot project uses Entrust's Identity Verification as a Service platform to remotely perform identity verification for returning Canadian nationals currently traveling overseas. This is followed by eligibility screening, security checks, arrival and border security, while feeding into security management and biometric exit controls at the airport. In essence, the front door to seamless traveler journey and "zero touch" border management, which is especially relevant now given COVID-19 protocols.

Solution

Chain of Trust facilitates continuous risk assessment at every point in a traveler's trip – from the time of recording flights in the mobile app, to getting off the plane to officially entering the country – to ensure an expedient traveling process.

The Chain of Trust process starts when travelers download the app and use their smartphone to obtain information from their passport to validate its authenticity.

Learn more about our seamless travel solutions at entrust.com

Canada Chain of Trust Case Study

INTERNAL AND INTERNATIONAL CHECKS
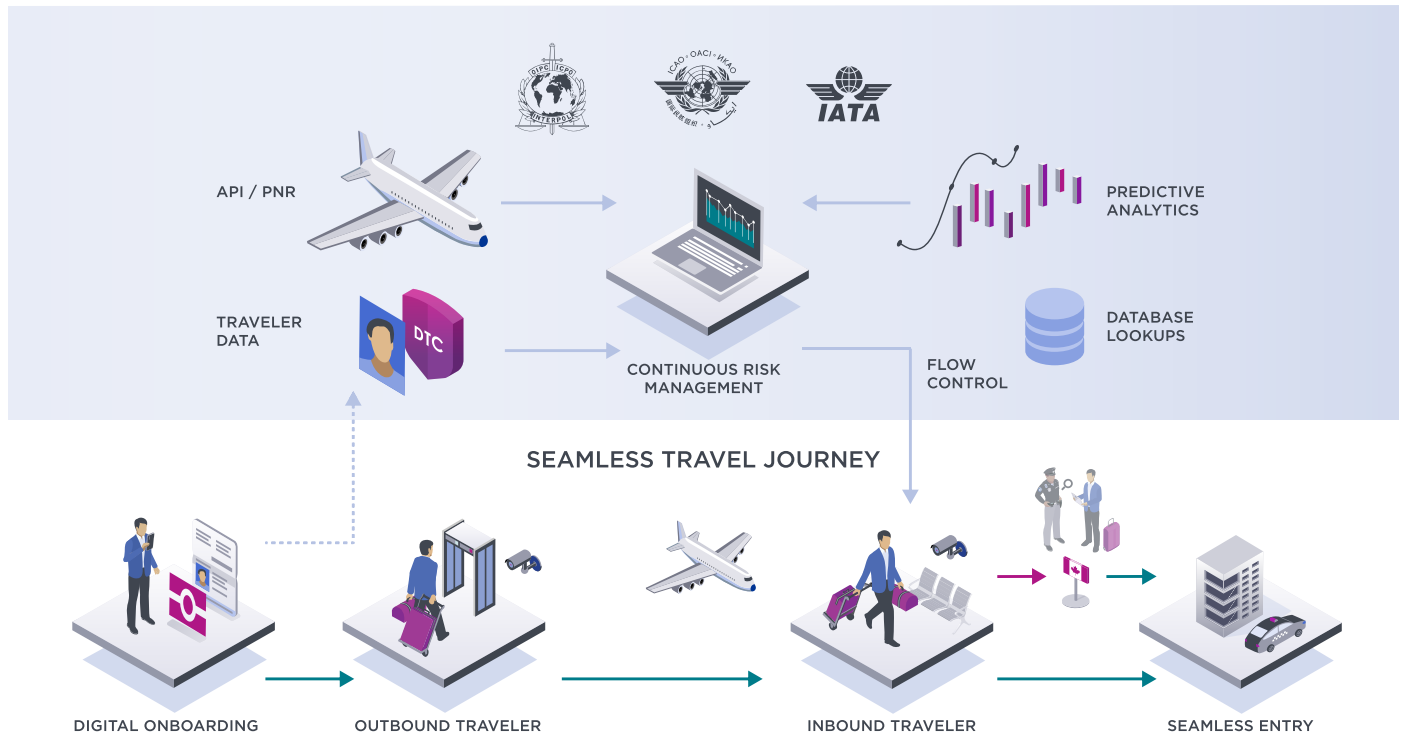
Validated information is then used to derive a Digital Travel Credential and store it securely on their smartphone for subsequent submissions of travel data to the appropriate government agencies. This ensures the traveler is who they say they are, while providing the government with validated data to make a detailed risk assessment. Traveler privacy is ensured using Privacy by Design and safeguarded using techniques such as encryption of biometrics and personally identifiable information during transmission to the government. No personally identifiable information is retained in the Entrust solution.

When checking in for the return flight to Canada, traveler information is shared with CBSA via Advanced Passenger Information Systems. Business rules use this data (and other data such as risk factors) to reach an assessment of the traveler's admissibility. The mobile app prompts the traveler to complete their declaration, which can be e-signed and submitted on arrival. The traveler is guided through each step via personalized notifications sent to their smartphone.

As travelers walk through border clearance, facial recognition corridors identify and direct them to appropriate border processing zones. The integrated Chain of Trust process helps CBSA identify persons of interest so they can react to travelers in a timely and secure manner. Throughout the border processing zones, roving border officers can make use of wearable technology to check the traveler's status and risk assessment information, changing their status if necessary.

Learn more about our seamless travel solutions at entrust.com

Canada Chain of Trust Case Study

Aligned with the World Travel & Tourism Council's Safe and Seamless Traveller Journey, IATA's One ID, and ICAO's Digital Travel Credential (DTC), a safer, more seamless air traveler experience is possible via the Chain of Trust.

PROJECT FACTS

Technology Demonstration Prototype -April 2017 until March 2019

Pilot Project - June 2020 to January 2023

(Initial pilot deployment was in March 2021)

MARKETS AND CAPABILITIES

Government Travel and Citizen Services

Safe and Seamless Traveler Journey

Digital Identity, Verification, and Onboarding

PRODUCTS DEPLOYED

Chain of Trust/eVisa as a Service Mobile App

Identity Verification as a Service

TECHNOLOGY DEVELOPMENT

- Various microservices (ex. Photo QA service, Facial Match Service, e-Passport Validation service, ePassport Signature Validation service, eSigning service)

- Digital Travel Credential

- Chain of Trust Mobile API

- Android and iOS App

- NFC Document Scanning

- Optical character recognition of the passport's MRZ

- Presentation Attack Detection

EXTERNAL INTEGRATION

- Integration with CBSA Back Office

OPERATES ON

- Windows OS

- Windows IIS

- SQL server

- Android OS

- Apple iOS

- AWS

- WiFi or 3G/4G connection

Learn more at entrust.com

ENTRUST