

2019 ACC Security Capabilities Workshop – TSA Biometrics

July 24, 2019

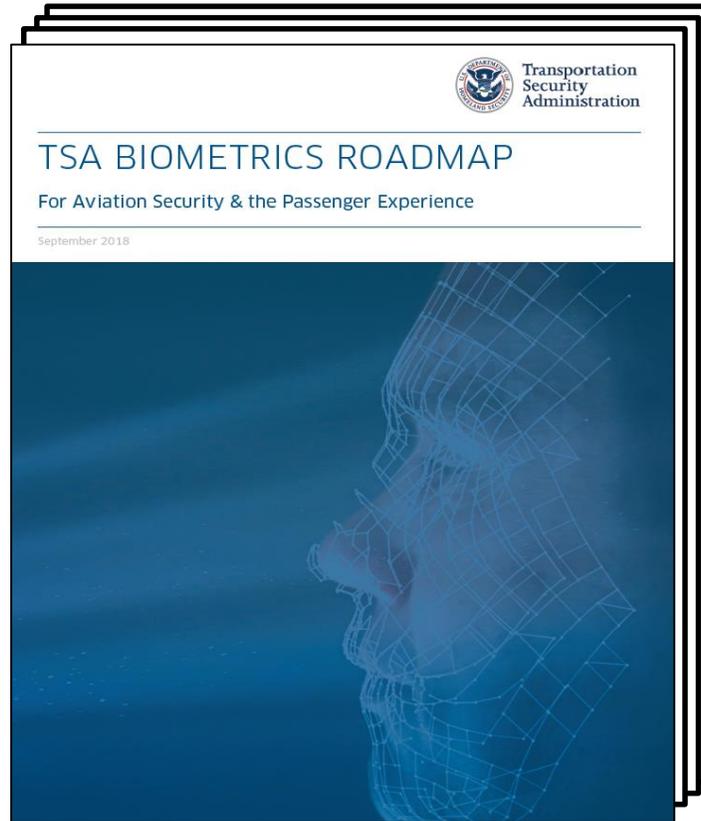
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TSA Biometrics Roadmap – Key Highlights



- **The Biometrics Roadmap** articulates an approach for TSA to leverage biometric solutions to increase security effectiveness while also improving operational efficiency and the passenger experience.
- Passenger-centric solutions can be extended to other key groups such as aviation workers, law enforcement officers, and known crew members.
- Facial recognition capabilities will be automated to increase assurance of traveler identity beyond what travel documents alone can provide. Over time, multi-modal approaches may help further increase the accuracy, security, and scalability of TSA operations.

TSA Biometrics Roadmap – Key Accomplishments

Goal 1 Partner with CBP on Biometrics for International Travelers

- Partnered with CBP and Delta Airlines to launch the first curb-to-gate biometrics experience at ATL Terminal F in November 2018
- Continued plans to pilot CBP’s Traveler Verification Service (TVS) at the TSA checkpoint

Goal 2 Operationalize Biometrics for TSA Pre✓® Travelers

- As of September 2018, the TSA Pre✓® program collects facial images from passengers who enroll or renew their membership in person
- Designed pilots to test 1:1 biometric matching in Pre✓® lanes to enhance Pre✓® experience

Goal 3 Expand Biometrics to Additional Domestic Travelers

- Continued to assess the solution space to improve the screening experience for the domestic passenger population
- Engaged with industry to innovate and implement enhanced CAT and mDL capabilities for standard screening lanes

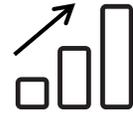
Goal 4 Develop Supporting Infrastructure for Biometric Solutions

- Aligned investments to integrate TSA and interagency systems (e.g. CBP, OBIM) to ensure a DHS unity of effort
- Developed test plans in coordination with industry to capture requirements for biometric technologies



TSA's Evolving Environment

TSA is pursuing 1:1 biometric matching, 1:N biometric matching, and Mobile Drivers' License (mDL) capability integration to enhance biometrics capabilities at the TSA checkpoint for identity verification.



Scale to TSA-specific passenger segments and meet TSA mission needs



Incorporate technological advancements to enhance security operations and mitigate bias



Adapt to regulatory and sociotechnical changes during the roll-out of new solutions



Enable Private-Public Partnership (P3) deployments through APIs and modularity

An assessment of authorities, privacy issues, costs, tradeoffs, and potential, phased courses of action will continue to inform the broader TSA biometrics solution space.



TSA Biometrics Capability Development

TSA is pursuing 1:1 biometric matching, 1:N biometric matching, and Mobile Drivers' License (mDL) capability integration to enhance biometrics capabilities at the TSA checkpoint for identity verification.

1:1 Biometric Matching	Integrate biometric capture with Credential Authentication Technology (CAT) machines to verify a live image capture against the image on a credential	Trusted/ General Travelers
1:N Biometric Matching	Utilize a backend repository to compare a live image capture to gallery of enrolled references	Trusted/ General Travelers
mDL Capability	Integrate mobile driver license (mDL) authentication capability with CAT machines to transmit digital identity information	Trusted Travelers

TSA plans on piloting these solutions with TSA Pre✓® passengers to evaluate technology performance before deploying solutions for additional population groups.

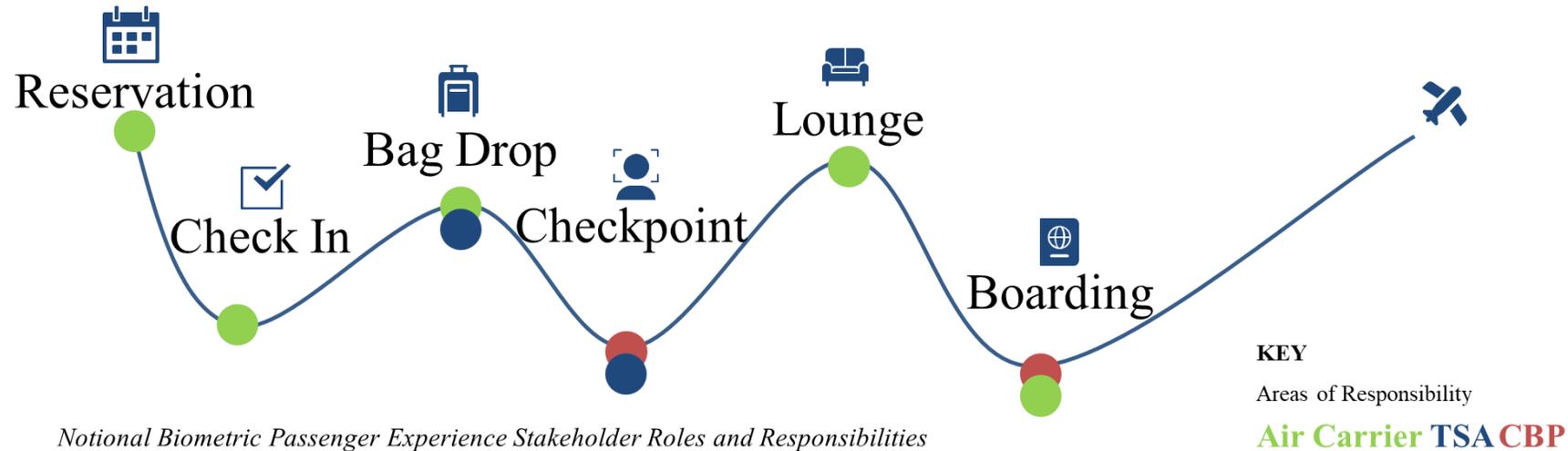


Delta Air Lines ATL Terminal F Project – Ongoing

Project Description: Delta Air Lines launched a curb-to-gate biometrics capability using CBP's TVS facial matching system at ATL Terminal F in November 2018.

This optional, end-to-end Delta biometrics experience (for direct international departure passengers only) includes using facial recognition technology to:

- o Check in at the self-service kiosks in the lobby
- o Drop checked baggage at the counters in the lobby
- o Serve as identification at the TSA checkpoint
- o Board a flight at any gate in Terminal F
- o And, go through CBP processing for international travelers arriving into the U.S.



Notional Biometric Passenger Experience Stakeholder Roles and Responsibilities



TSA 1:1 Biometric Matching with CAT and Camera

TSA is developing and testing 1:1 biometric matching to allow passengers to verify their identity against a provided travel credential at the checkpoint.



1:1 Capability Development Status

- **Piloting CAT-C Phase I solution in FY19 Q4 (LAS)** to test the capabilities of the upgraded front-end CAT machine with a camera unit for facial recognition.
- **Piloting CAT-C Phase II solution in FY20 Q2 (TBD)** to test the Phase I technology with additional backend integration to TSA systems (e.g. Secure Flight) to further enhance the automation of identity verification procedures
- Identifying and testing secure protocols for mDL transactions at the TDC



TSA Modernization Act – Reporting Requirements and Implementation

On October 3, 2018, Congress passed the *TSA Modernization Act*, and it was signed into law on October 5, 2018. Section 1919 of the Act requires the Secretary of Homeland Security to submit a report to Congress, with assessments from the TSA Administrator and CBP Commissioner relating to biometric technologies.

Summary of Section 1919

As applied **jointly to CBP and TSA**, Section 1919 (“Biometrics Expansion”) of the *TSA Modernization Act of 2018* –

1. Requires the TSA Administrator and Commissioner of CBP to consult with each other on the deployment of biometric technologies
2. Requires **submission of a report** to appropriate committees of Congress (and to any member of Congress upon request) that includes assessments of:
 - The **operational and security impact** of using biometric technology to identify travelers
 - The potential **effects on privacy** of the expansion of biometric technologies, including methods proposed or implemented to mitigate privacy risks related to the active or passive collection of biometric data
 - The methods to **analyze and address matching errors related to race, gender, or age** with respect to the use of biometric technology, including facial recognition technology
3. Requires TSA and CBP to publish a public version of the joint assessment on their agency websites, if practicable
4. Requires an assessment of the biometric entry-exit system (CBP-specific)

TSA has coordinated with key agency partners, including CBP and DHS’ Science & Technology (S&T) Directorate, to comply with the requirements of Section 1919.



Industry Engagement

TSA will seek new and innovative approaches to extend opt-in biometric solutions to the general flying public by exploring a range of options for enabling a secure, scalable, biometric passenger experience.

Interagency stakeholders, the commercial aviation industry, and solution providers have a key role to play in scaling biometric solutions to additional passenger populations beyond international outbound and trusted travelers.¹

¹TSA Biometrics Roadmap, published October 2018



Questions or comments?

Please email the TSA Biometrics inbox at TSABiometrics@tsa.dhs.gov.



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