

TSA Office of Requirements and Capabilities Analysis (ORCA)



Transportation
Security
Administration

TSA Vision and Challenges

Vision

- Use biometrics at the checkpoint as the identification and boarding pass (vetting status) for as many passengers as possible
- Automate the Traveler Document Checker (TDC) process

Challenges

- Limited biometric population
- IT infrastructure development to biometric repository capabilities such as IDENT, and eventually HART
- Policy on access to existing biometric repositories and capture of biometrics at the checkpoint

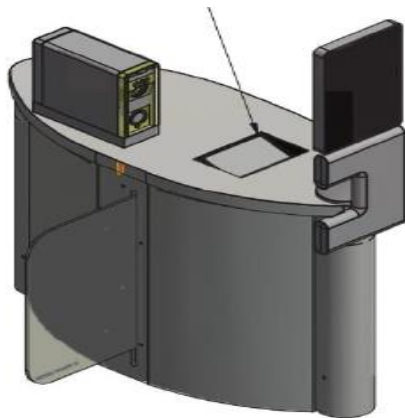
Capabilities

- Receive near-real time information updates from biometric repository(ies), passenger vetting service(s) (e.g. Secure Flight), and airlines
- Ensure passengers understand how to use the system- avoid adding new processes
- Ensure privacy of passengers and security of PII information
- Ensure system is fully cybersecurity compliant

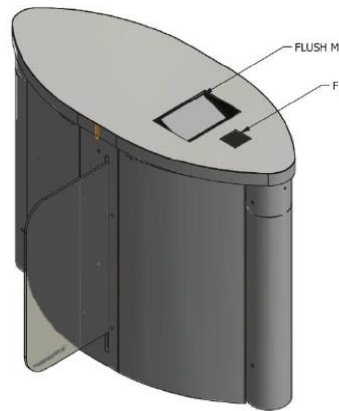
Identity Verification Technologies

Biometrics Authentication Technology

Biometric Authentication Technology (BAT) connects *Known Traveler Biometrics (KTB)* and *Secure Flight (SF)* data by exchanging data between *Universal Enrollment System (UES)* and *STIP* to verify the passenger's identity and vetting status. *Innovation Task Force (ITF)* is currently demonstrating a **contact** and a **contactless** biometric gate at **ATL** and **DEN**.



Contactless



Contact

Credential Authentication Technology

Credential Authentication Technology (CAT) provides TSOs with enhanced detection capabilities for identifying fraudulent and/or invalid passenger identification documents and boarding passes. TSA has deployed 3 CAT units to **IAD** and **DCA** for Developmental Test and Evaluation from **May-July**.

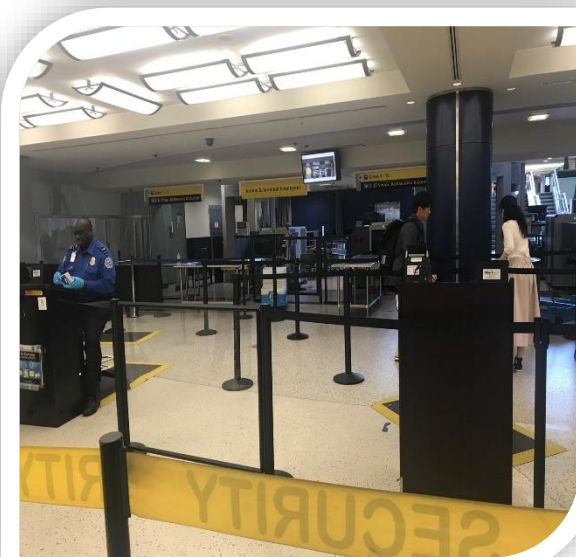
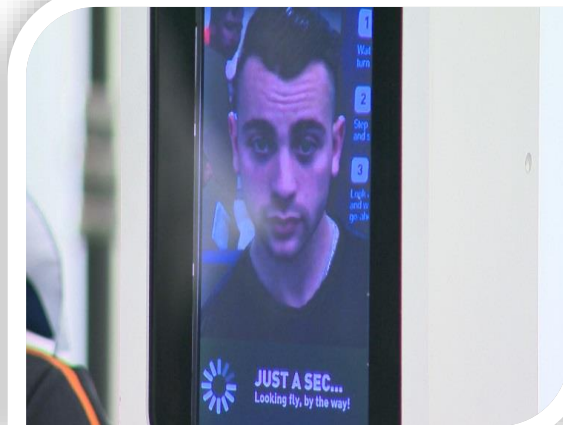


Demonstrations in Collaboration with CBP

Collaborative Identification Validation and Vetting using CBP designed Traveler Verification Service (TVS)

Owner: JFK/TSA/CBP

- CBP/TSA will conduct a Facial Recognition Pilot at JFK Terminal 7 checkpoint in September 2017
- JFK Terminal 7 is an international only checkpoint
- The pilot will be a multi-phased approach starting with data collection
- TSA and CBP will work together after the initial phase to develop requirements for incorporation into the TVS.
- Opportunities for the future are still in development but near term we hope to roll this model out to other international only checkpoints



Demonstrations in Collaboration with ITF

In addition to driving solution demonstrations, TSA is collaborating with partners to facilitate innovation. Examples of such projects are listed below.



Collaborative Identification Validation and Vetting

Owner: DFW/TSA/CBP

- Partnership between TSA and CBP using Expedited Screening ConOps for rescreening of applicable passengers post-FIS.



Vision-Box

- Validates passenger identity through facial biometric matching. The e-gate accepts two forms of identification: an e-passport and the Mobile Passport app from your phone (iPhone or android).



Biometric Bag Drop

Owner: Delta & Minneapolis-St. Paul International Airport

- Self bag drop solution in MSP Ground Transportation Center with 2-4 self bag drop machines



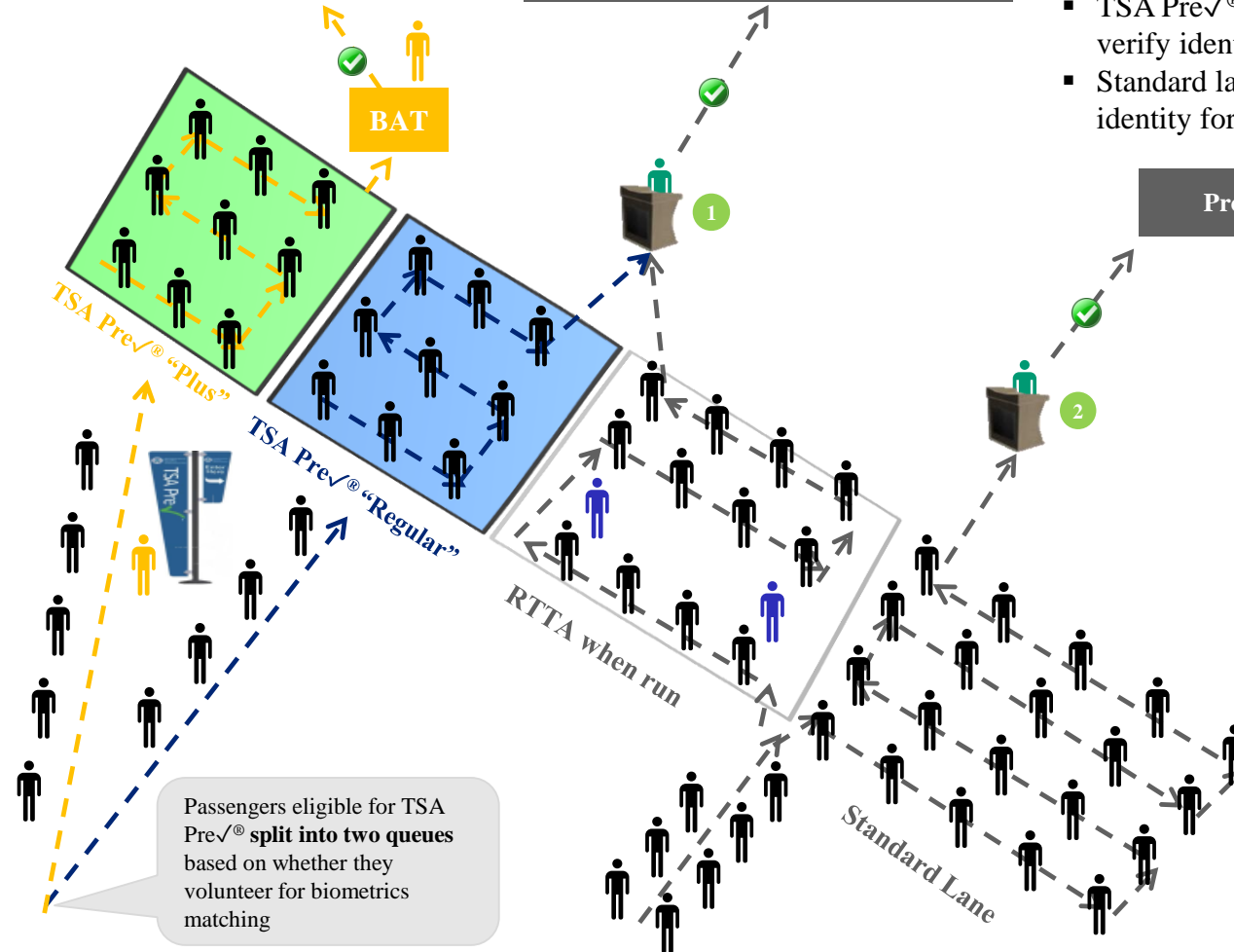
Backup

Checkpoint Diagram

Proceed to TSA Pre✓[®] Plus Screening

Proceed to TSA Pre✓[®] Screening

Proceed to Standard Screening



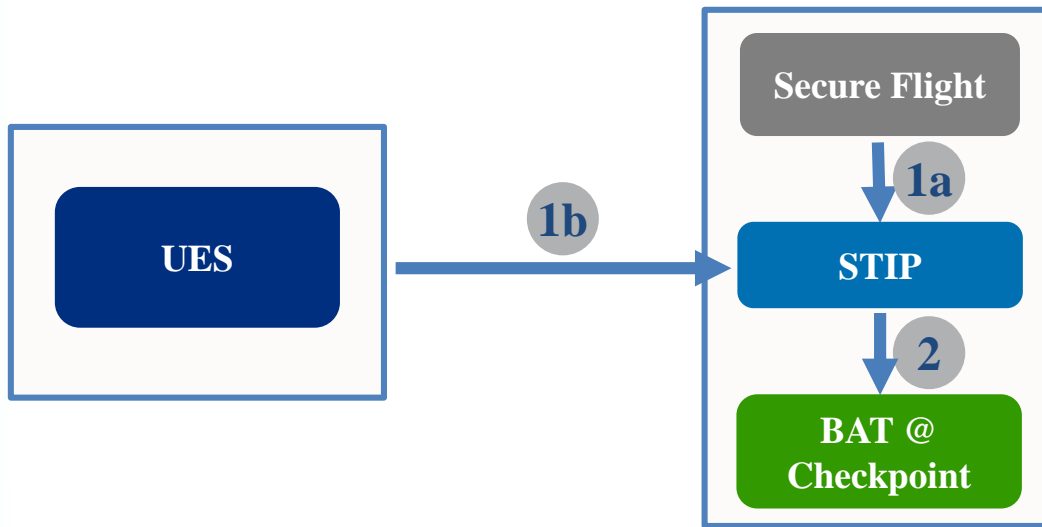
Passengers eligible for TSA Pre✓[®] split into two queues based on whether they volunteer for biometrics matching

- BAT eGate will open for all passengers with a biometric match.
- TSA Pre✓[®] lane TDCs will continue to verify identity for all passengers.
- Standard lane TDCs will continue to verify identity for all passengers.

LEGEND	
	BAT hardware (capture fingerprint / display matching results)
	TSA Pre✓ [®] Lane TDC
	Standard Lane TDC
	Passenger
	PMO Staff/BAT Operator
	Canine Team
	Passenger Flow

BAT PoC Information Flow

Below is the information flow for the BAT PoC between Secure Flight, STIP, UES, and BAT



Step	Activity
1a	Secure Flight passes passenger vetting status and flight data, including TSA Pre✓ [®] Known Traveler Number (KTN), to STIP in near real-time.
1b	UES manually sends biometrics templates and TSA Pre✓ [®] KTN to STIP, which is put into the STIP enterprise
2	STIP passes the relevant biometrics templates retrieved from UES and passenger vetting status and flight data to the BAT device at the checkpoint

The UES to STIP information flow is completed manually (i.e., an ISSO approved method for passing data, such as an encrypted email or hand-passed thumb drive) and will not require development that does not fit into the final system architecture