Data Privacy & Integrity Advisory Committee

Public Meeting

December 10, 2018

1 – 4PM

Web Conference Instructions

Please follow these instructions:

CONFERENCE LINE

- Dial 1-800-616-4018.
- Please mute your phone but don't place it on hold.

QUESTIONS

- Hold questions until the end of each session when the operator will open the line. DPIAC members have priority.

HANDOUTS

- This presentation is also available on our website: www.dhs.gov/privacy. Search on *Privacy Committees*.

Opening Remarks

Sandra Taylor

Designated Federal Official

Data Privacy and Integrity Advisory Committee

Lisa Sotto

Designated Federal Official

Data Privacy and Integrity Advisory Committee

CPO Remarks

Sam Kaplan

Chief Privacy Officer and

Chief Freedom of Information Act Officer

DHS Privacy Office

DHS Privacy Incidents
Breach Response
PII Incident Strategy

Marilyn Powell
Director of Incidents
Privacy Office

The Road to Our Current PII Incident Strategy

TIMELINE:

- **2013** – MSM Security Services - Vulnerable Contractor System
- **2013** – KeyPoint (KGS) – Contractor Slow to Report Threat Intrusion.
- **2015** – OPM Breach – Actual Breach in May 2014.
- **2014** – USIS EEO & Background Check PII Breach – USIS Goes Out of Business
  JUN 2015 – DHS/OMB Cyber Sprint
- **OCT 2015** – OMP Cyber Security Implementation Plan (M 16-04)
- **SEPT 2015** – PRIV asks DPIAC for Victim Notification Recommendations
- **JULY 2016** – OMB A-130 Managing Information as a Strategic Resource.
- **DEC 2016** – Government-wide BPA with IPS for Credit Monitoring and Identity Theft Services
- **DEC 2016** – OMB A-108 Fed Agency Responsibilities for Review, Reporting, and Publishing under the Privacy Act

The Road to Our Current PII Incident Strategy

TIMELINE (cont.)

- ☐ **JAN 2017** – OMB M 17-12 Preparing for and Responding to a Breach of PII.
- ☐ **FEB 2017 – DPIAC Recommendations for Notifying Affected Individuals**
- ☐ **MAY 2017** – DHS OIG Breach .
- ☐ **DEC 2017** – Privacy Incident Responsibilities and Breach Response Team DHS Instruction 047-01-008.
- ☐ **DEC 2017** – DHS Privacy Incident Handling Guide
- ☐ **2017** – Equifax Breach.
- ☐ **APR 2018** – DHS First Annual Breach Response Table Top Exercise
- ☐ **MAY 2018** – DHS SOC Join Monthly Incident Practitioner Calls .
- ☐ **SEPT 2018** – Component Specific Table Top Exercises Begin

Cyber Strategy & PII Strategy

Cybersecurity Implementation Plan (CSIP)

1. Continuous Diagnostic Monitoring
2. Identify High Value Assets and Protect them
3. Detection and response
4. Recruit and train
5. Acquisition and deploy technology

A-130 – Managing Info as a Strategic Resource

1. ECOP Continuous Monitoring
2. DHS Compliance Document Oversight
3. Privacy Incident Response & Breach Response Team (BRT) Instruction 047-01-006 and PIHG encouraged to recognize a PII Spill & Report
4. Workforce Comm. – Targeted Recruiting; DHS PRIV Training and Outreach
5. HSAR clause use DHS-wide

The *NEW* Cybersecurity and Infrastructure Security Agency

Matthew Travis

Deputy Under Secretary

National Protection and Programs Directorate

James Burd

Acting Director, Privacy

National Protection and Programs Directorate

Please return by 2:15PM

U.S. Customs and Border Protection

Ashley Ortiz
Program and Management Analyst
CBP Entry Exit Transformation Office

December 2018

U.S. Customs and Border Protection

ENTRY EXIT | TIMELINE

1996 Illegal Immigration Reform and Immigrant Responsibility Act: Mandated biographic system

2004 Intelligence Reform and Terrorism Prevention Act: Mandated biometric system; Biometric collection begins for arriving non-immigrant travelers.

2004-2007 US-VISIT performs biometric pilots that lacked operational integration, technical proficiency, and stakeholder support.

2007 Implementing Recommendations of the 9/11 Commission Act: Mandated biometric system

2008 NPRM proposing that stakeholders collect biometric data and submit to DHS. High opposition due to cost and feasibility.

2009 Additional US-VISIT Pilots.

2013 Congress transfers entry and exit operations to CBP.

2015 CBP conducts biometric pilots.

2016 Congressional funding for biometric exit program identified via H and L visas processing fees.

2016 CBP re-engineers biometric collection process and develops realistic biometric solution.

2017 Executive Order 13780 to expedite the completion of biometric entry/exit system; CBP expands demonstration of capability.

2018 Simplified travel capability scaled for biometric exit.

Facial recognition emerged as the key to connecting a traveler's biographic and biometric data

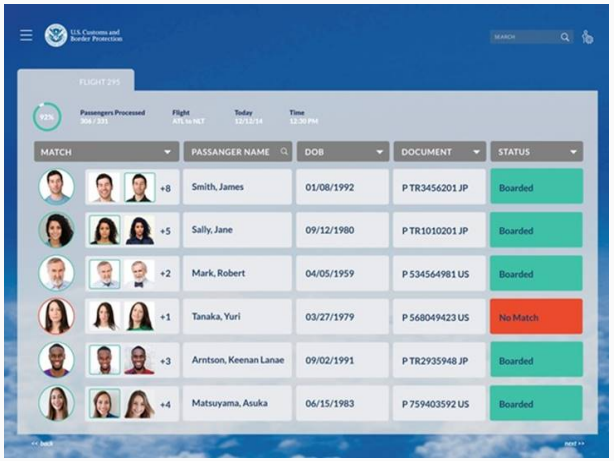
U.S. Customs and Border Protection

CBP'S INVESTMENT | A FACIAL MATCHING SERVICE

CBP designed a backend facial matching service, that leverages existing advanced passenger information, existing photographs from U.S. Government holdings, and is acceptable for all collection devices.

HOW IT WORKS:

- Uses biographic APIS manifest data and existing photographs (previous CBP encounters, U.S. Passport, U.S. Visa) to build a flight gallery
- Matches "live photograph" taken prior to boarding with image from the gallery associated with the manifest
- Creates exit record, confirmed departure in ADIS



WHY IT WORKS:

- Uses existing traveler biometrics
- No new data requirements
- Matches one to few utilizing cloud infrastructure
- Token-less processing
- Integrates into existing airport infrastructure
- Extends to land and sea environments

CBP's Matching Service enables travel partners to achieve Simplified Travel while meeting the Biometric Exit Mandate

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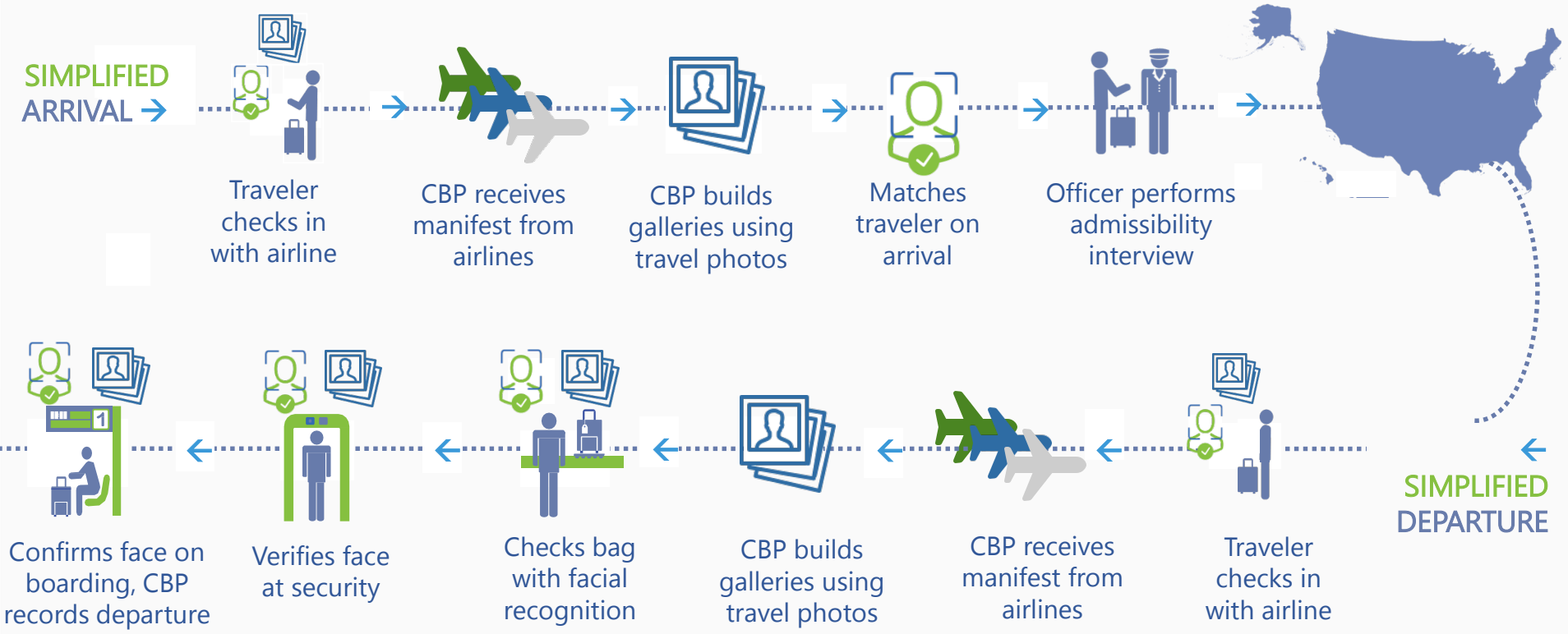
SIMPLIFIED TRAVEL | HOW IT WORKS



Using facial recognition, CBP will confirm identity of all travelers and create a streamlined travel experience

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SIMPLIFIED ARRIVAL | DEPLOYMENT PROGRESS

- Simplified Arrival transforms arriving into the United States by reducing complexity and improving inspectional efficiency and customer experience.
- Enables CBP Officers to focus on enforcement and admissibility
  - Three imposters have been identified.
- Currently deployed at 15 airports, including four preclearance locations.

Simplified Arrival decreases travel document scans and eliminates fingerprint capture for known travelers

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SIMPLIFIED DEPARTURE | PARTNER SOLUTIONS IN ACTION

JetBlue – Paperless Boarding at BOS

Los Angeles – E-gates

Airlines integrate facial biometrics and use CBP's agnostic matching service to board aircraft

U.S. Customs and Border Protection

STAKEHOLDER EXPANSION | 2018 PROGRESS REPORT

APR - JUN

- Initiated demonstration projects with new partners
- Expanded entry to Abu Dhabi, Shannon preclearance locations
- Secured commitments to expand with **Orlando**, **Delta**,, **Houston** and **San Jose**
- Continued planning with TSA for TVS/Secure Flight Integration

JUL - SEPT

- Executed demonstration projects with new partners
- Expand entry and exit deployments
- Secured commitments with **Dulles, Tampa, San Francisco, Los Angeles, Austin, Dallas Ft. Worth**
- Performed Phase II TSA Pilot Monitor progress

SEPT - DEC

- Prioritize stakeholders for '19, continue demonstrations
- Monitor stakeholder commitments
- Continue working with TSA on Integration
- Secured commitment with new partners **Las Vegas, BWI, Salt Lake City, Ontario** and working finalize with other participating

Airline Partnership: BRITISH AIRWAYS jetBlue DELTA

Our stakeholders are ready for seamless travel, and CBP is enabling the ability to move forward

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SIMPLIFIED TRAVEL | BENEFITS

By Partnering with CBP, our stakeholders will see benefits from entry to exit utilizing our matching service including:

- **Faster Flight Clearance Times on Arrival**:
  - CBP has measured an average of **11.8 minute faster** Flight Clearance Times across sites that have deployed facial recognition processing on Entry
- **Faster Boarding Times:**
  - Lufthansa reported boarding **350 passengers** onto an A380 **in 20 minutes** at LAX
  - British Airways reports **significantly faster boarding times** vs. standard process at MCO
- **Enhanced Customer Experience:**
  - JetBlue reports biometric boarding **meters passengers better**, resulting in less waiting time in the jet way and passengers just walk to their seats
- **Better use of CBP Staffing**:
  - Elimination of fingerprinting and passport swipes increases throughput and allows CBP officers to **focus on interview and inspection**

Partners achieve significant operational improvements through the implementation of biometrics for entry/exit

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BIOMETRIC PROCESS | OPERATIONAL PERFORMANCE

EXIT	ENTRY	PRECLEARANCE
6,000 flights processed	38,000 flights processed	9,400 flights processed
981,000 participating passengers	3.6 million participating passengers	1.3 million participating passengers

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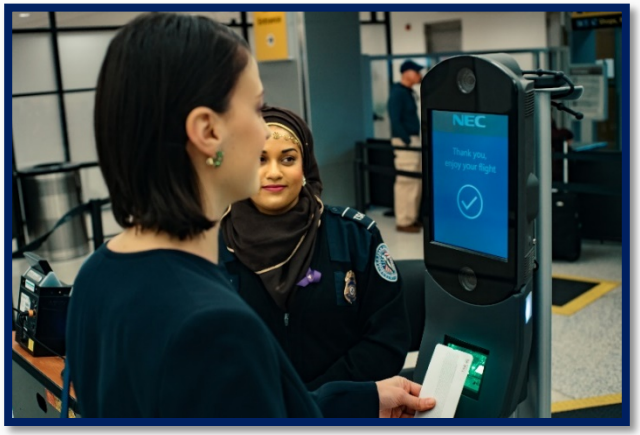
PARTNERSHIP WITH TSA | PROGRESS AND PLANS

TSA is evaluating the use of facial recognition utilizing CBP's facial matching service. The integration of facial recognition for identity verification will enhance security and better utilize resources, while moving towards a frictionless travel experience.

- **Phase I:** October 2017 at JFK Terminal 7. Examined the viability of utilizing facial recognition to verify the identity of travelers at the TSA checkpoint.
- **Phase II:** August 2018 at Los Angeles International Airport's Tom Bradley International Terminal.
- **Phase III:** 2019 - Full integration between CBP and TSA



Integration between CBP and TSA will expand the seamless travel experience

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SIMPLIFIED SEA & LAND TRAVEL | PROGRESS AND PLANS

Sea:

- CBP is pursuing partnerships with the cruise line industry to transform the embark and debark process.

- Early results indicate the use of biometrics enhances CBP enforcement activities while simultaneously streamlines traveler inspections.

Land:

- **Vehicle at Speed**
  - Capturing faces inside inbound and outbound vehicles traveling at speed in Anzalduas, Texas.

- **Pedestrian Technical Demonstrations**
  - Entry operations at San Luis and Nogales, Arizona.
  - At least 38 imposters already identified.

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SIMPLIFIED TRAVEL | COMMITMENT TO PRIVACY

- **Transparency Efforts:**
  - Two Briefing Sessions for Privacy Advocates and Stakeholders in 2017-18 in Washington, DC and San Francisco, CA
  - DHS Data Privacy and Integrity Advisory Committee Meeting
    - September 19, 2017 in DC
    - May 11, 2018 (conference call)
    - July 10, 2018 (tour of Orlando airport and briefing)
    - December 10, 2018 (release of DPIAC Report)
- **Notification to the Public:**
  - Privacy Impact Assessments
    - 10 PIAs have been published relating to CBP facial recognition efforts, available at: www.dhs.gov/privacy
    - A new comprehensive TVS PIA was published November 14, 2018
  - Online Content at CBP.GOV
    - Fact Sheets
    - Frequently Asked Questions
  - Signage at Demonstration Sites, Tear Sheets and Gate Announcements in some locations
  - U.S. Citizens not wishing to have a photo taken may request an alternative identity verification process

CBP commitment to transparency builds public trust while enhancing security and facilitates travel.

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PRIVACY BY DESIGN | COMMITMENT TO PRIVACY

- **Limited Retention of Facial Images:**
  - *CBP Systems:* Facial images of U.S. Citizens are securely stored for up to 12 hours after capture for COOP purposes.
  - *IDENT:* Photos of in-scope travelers are securely stored in DHS IDENT to meet the biometric exit requirement and to ensure the accuracy of future matching encounters at the border with the TVS.
  - *Airline/Airport Partners:* CBP has developed business requirements which do not allow approved partners to retain the photos they collect--for purposes of identity verification through the TVS--for their own business purposes. These partners must purge the photos, once they are transferred to CBP and must allow CBP to audit compliance.

- **Enhanced Security Measures:**
  - *Encryption:* Strong encryption is used for data, both in transit and at rest.
  - *Access Controls:* Access to the collection device is granted only to authorized CBP personnel and representatives.
  - *Security of Biometric Matching Service:* The TVS creates irreversible templates of the historic and newly-captured photos and uses a Unique identifier to connect travelers' biographic information with their facial images. An audit trail is created. The TVS is walled off from the APIS biographic data, which has been required since 2005.

- **Minimizing and Mitigating Algorithm Bias:**
  - *Bias:* CBP continually monitors and tests the TVS for performance bias. To date, no significant bias has been found. The TVS was developed using diverse training sets and matches against a limited set of faces on the flight manifest.
  - *NIST:* A recent NIST vendor test found significant gains (i.e., 20 times) in accuracy in the past five years. NIST found that with high quality photos, the most accurate algorithm can identify matches with only a 0.2 percent error rate.
  - *CBP Partnerships on Testing and Evaluation:* CBP is collaborating with NIST, the DHS Science & Technology and Office of Biometric Identity Management to test technologies developed by specified vendors and to evaluate algorithms.

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SIMPLIFIED TRAVEL | THANK YOU

Debra Danisek, CBP Privacy Officer
Ashley Ortiz, Management and Program Analyst

U.S. Customs and Border Protection

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Subcommittee Report
Biometric Facial Recognition

Chris Pierson

Chair, Policy Subcommittee
Data Privacy and Integrity Advisory Committee

Immigration Data Integration Initiative (IDII) Update

Marc R. Rosenblum

Deputy Assistant Secretary

Office of Immigration Statistics

Office of Policy, DHS

DHS Immigration Data Integration Initiative

Briefing for DHS Data Privacy and Integrity Advisory Committee (DPIAC)

December 10, 2018

Overview & Scope

- The need: DHS immigration data are dispersed across four dozen data systems, creating fragmented data sets across the immigration domain
  - Congress and the Trump Administration—and essentially every data scientist in the world—recognize the need for enterprise standards and data integration

- IDII Vision: Centralize and validate an authoritative set of linked immigration data that stakeholders can rely on for operational research, reporting, and analysis

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Overview & Scope

- Three lines of work to accomplish this goal:
  - Enterprise data standards
  - Person-level data linkages + data policies
  - Common IT environment + data tools

- Benefits:
  - Operational efficiencies
  - Faster, more comprehensive, more consistent reporting
  - Supports research and evidence-based policy-making

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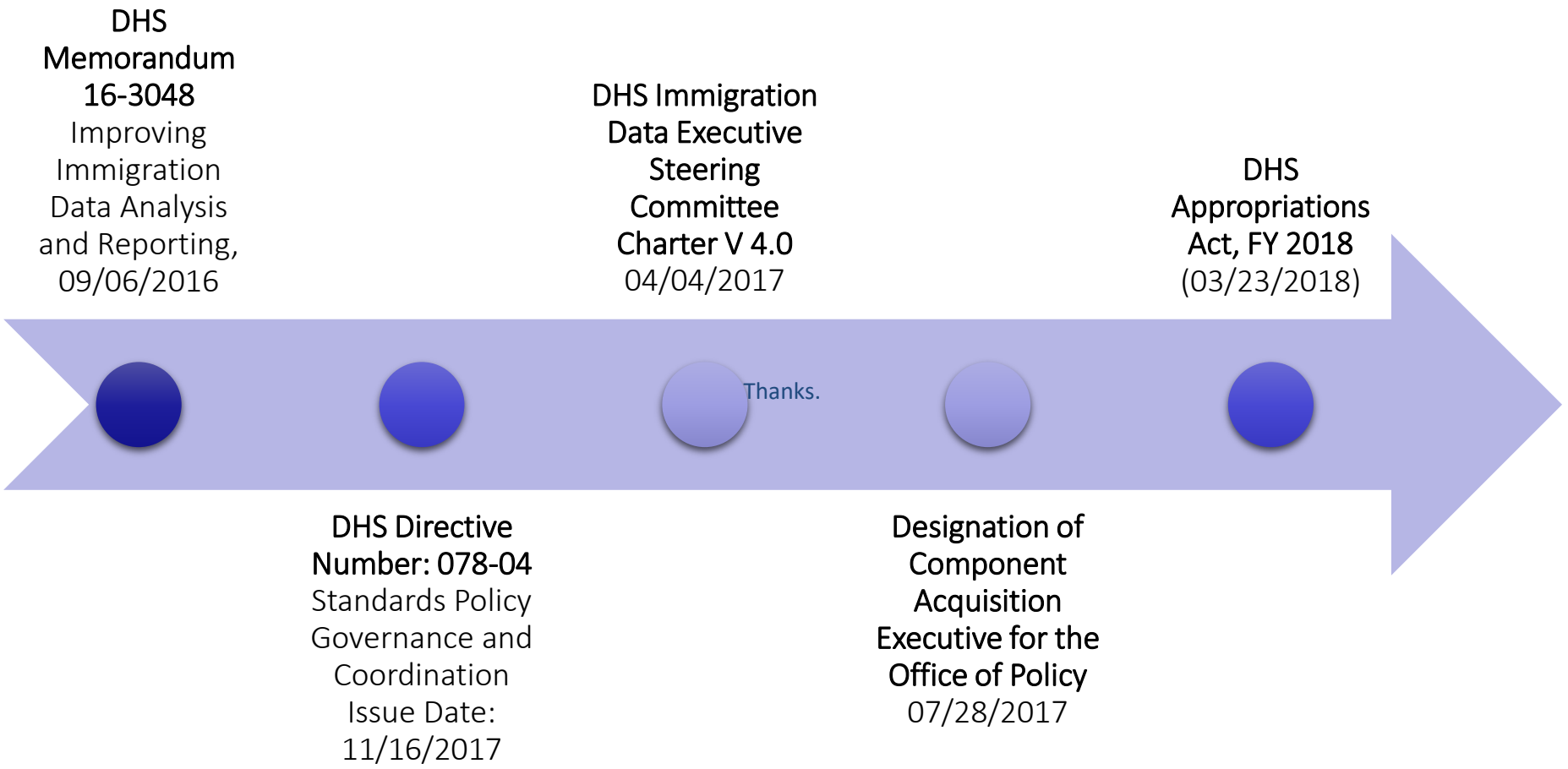
Background & Authority



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Accomplishments to Date: Data Standards

Available Standards
Class of Admission (COA)
Country
Department of State Consular / Post Codes
Employment Authorization Document (EAD)
EOIR Court Locations
Eye Color
Hair Color
ICE Detention Locations*
Marital Status
Occupation
Race
USCIS History Action Codes (HAC)
Zip Codes
Standards Under Development
Address
Language Type
North American Industry Classification System (NAICS)
Religion Type
State

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Accomplishments to Date: IT Implementation

- OIS staff serve as the beta-testers for the near-term, interim IDII solution
  - OIS can now pull USCIS data directly from USCIS eCISCOR and CBP ADIS
  - OIS staff transitioning to USCIS SAS Predictive Modeling Environment (PME) and Amazon Cloud storage capabilities
  - Use of sFTP to migrate historic data and for CBP and ICE to securely transfer new data requests
- In development: direct access to CBP's BorderStat and TECS systems

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Accomplishments to Date: Privacy Policies

- Finalized a Privacy Threshold Analysis covering OIS instance of IDII Interim Environment in USCIS SAS-PME
- Finalized a Privacy Impact Assessment covering OIS operations, including the IDII program
- In discussion with S&T Center for Accelerating Operational Efficiency (CAOE) to support IDII re-identification testing

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Accomplishments to date: OIS/IDII Flow Dataset

Person-centric dataset that uses **smart matching algorithms** to **link people and events**

People and events from 19 different datasets from **ICE, CBP, USCIS, and DOJ/EOIR**

Identifiers and data quality vary across sources and datasets

People are assigned an OIS person-centric ID so that **PII can be removed** for data sharing

Data are **event-based,** linking an individual's experience of **events across components**

Provides a **complete picture** of how people move **through the immigration system**

OIS is working with the IDII Data Policy and Oversight Working Group to **standardize a DHS "best practice"** for creating person-centric datasets

OIS combined 19 datasets matched by person identifiers to create the current version of the **Flow Dataset** to support IDII – Re-matched each time new waves of data are added

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Datasets Currently in the Flow Dataset

U.S. Citizenship and Immigration Services (USCIS)

- Affirmative Asylum (RAPS)
- USCIS Applications and Defensive Asylum (APSS)
- Deferred Action for Childhood Arrivals (ELIS)
- Legal Permanent Residents (ELIS IV)
- Employment Authorization Documents (CLAIMS3)

Immigration and Customs Enforcement (ICE) Enforcement and Removal Operations (ERO)

- ERO Charging Documents Issued
- ERO Administrative Arrests
- ICE Initial Book-Ins
- ICE Releases/Final Book-Outs
- ICE Removals and Returns

ICE Homeland Security Investigations (HSI)

- HSI Administrative and Criminal Arrests

Customs and Border Protection (CBP) Office of Field Operations (OFO)

- OFO Inadmissibles

CBP U.S. Border Patrol (USBP)

- USBP Apprehensions

DHS

- Removals and Returns

DOJ Executive Office for Immigration Review (EOIR)

- EOIR Bonds
- EOIR Schedule
- EOIR Appeals
- EOIR Proceedings
- EOIR Case Information

The Flow Dataset encompasses 12.1 million unique individuals and 51 million events covering fiscal years 2013 through 2018 Q3

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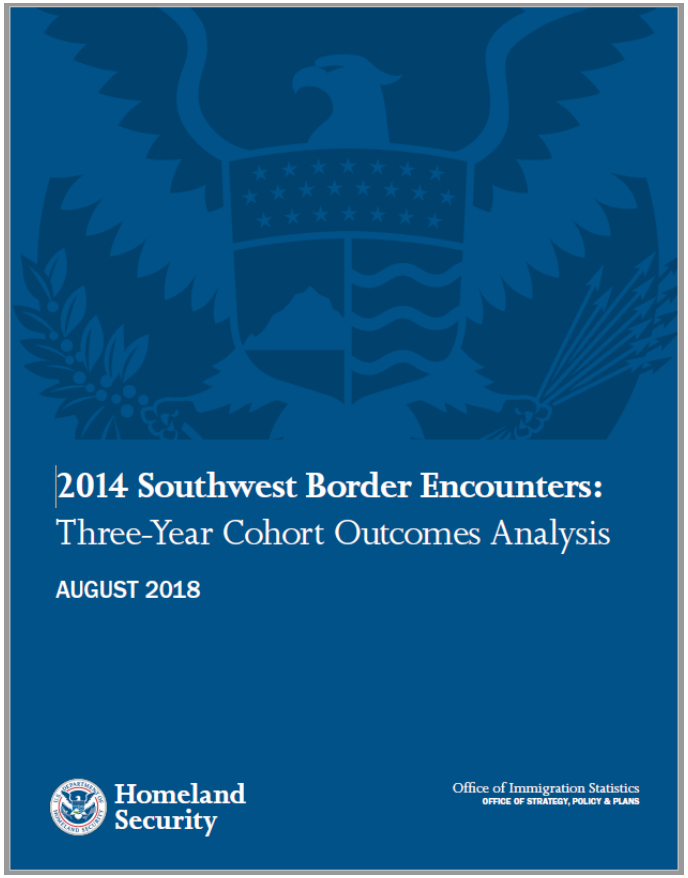
Accomplishments to Date: Data services

- August 2018, 2014 Southwest Border Encounters: Three-Year Cohort Outcomes Analysis
- Enforcement Lifecycle/Flow tables to support White House, S1/SAG, C1, DOJ/DAG, CBP/MCAT, ICE/Policy, ICE/SOA



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2019 Priorities

- Firm up quarterly data refresh
- Continue processing high priority use cases
- Continue publishing new data standards supporting use cases
- Maintain data change requests supporting published data standards
- Establishing monthly data refresh for selected elements
- Initial data visualization tools (dashboard prototypes/wire frames)
- Initial work on long-term IDII environment

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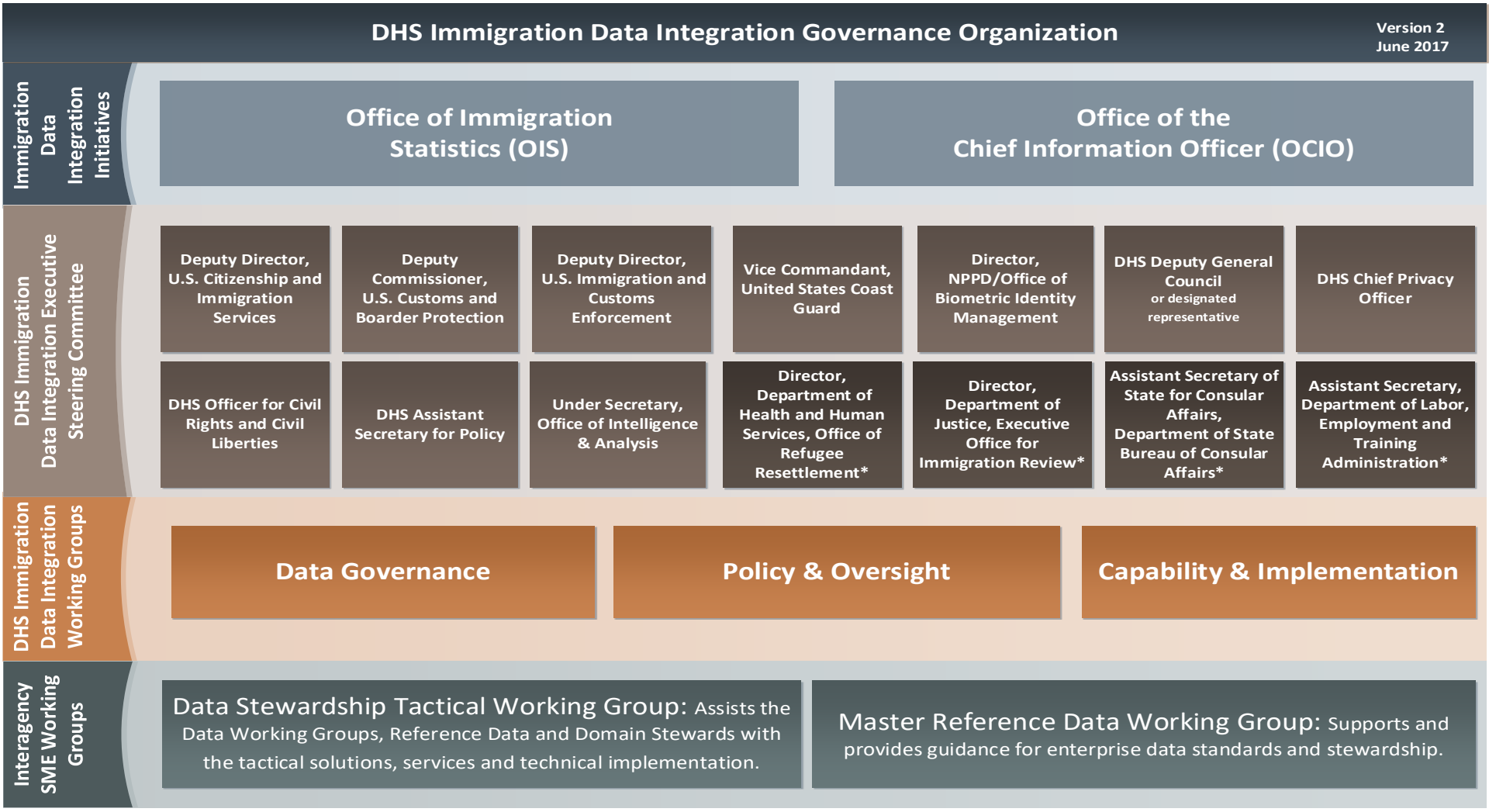
DHS IDII Structure



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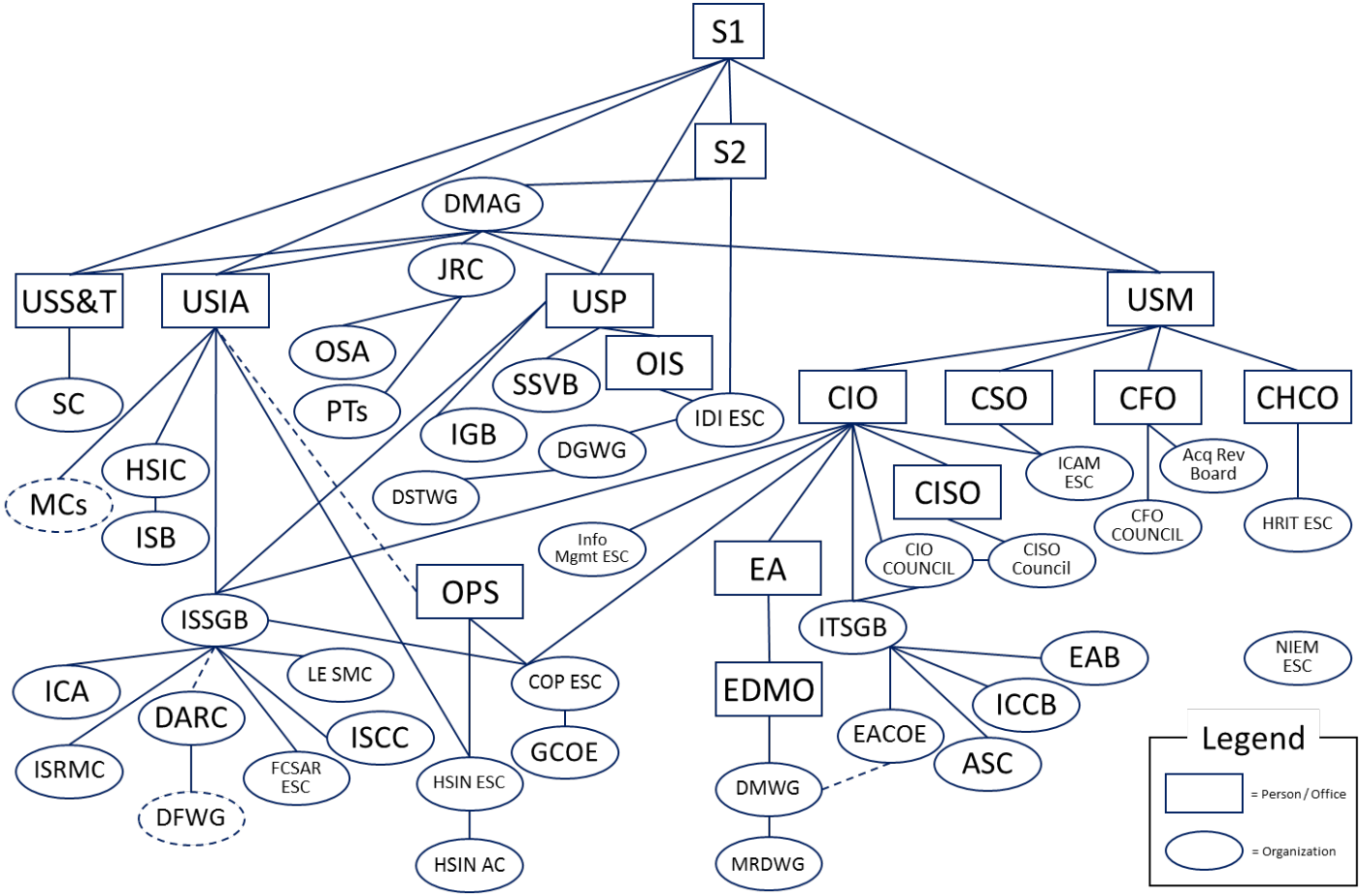
DHS Lacks Enterprise Data Governance

Depiction of Headquarters-Level Governance of Data at DHS*



Source: ISSGB

* All organizations identified have some level of Component representation.

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IDII Collaborative Outcomes

Source Information

- ICE Systems
- CBP Systems
- USCIS Systems
- USCG Systems
- NPPD Systems
- DOS Systems
- DOJ Systems
- DOL Systems
- HHS Systems

Inputs

Governance

ENTERPRISE QUALITY:
- Standards
- Terminology
- Information Sharing
- Rules
- Logic

Outputs

Environment

BUSINESS INTELLIGENCE ANALYTICS:
- Predictive
- Aggregate
- Trend Analysis
- Person Centric

Outcomes

Enforcement & Benefit User Community

Security, Privacy, Access

Working Group Collaboration

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Subcommittee Report
Immigration Data Statistics

Joanna Grama

Chair, Technology Subcommittee

Data Privacy and Integrity Advisory Committee

Privacy Office

Protecting privacy while promoting transparency