

*Privacy Office*

# 2017 Data Mining Report to Congress

*October 2018*



**Homeland  
Security**

## FOREWORD

*August 2018*

I am pleased to present the Department of Homeland Security's (DHS) 2017 Data Mining Report to Congress. The Federal Agency Data Mining Reporting Act of 2007, 42 U.S.C. § 2000ee-3, requires DHS to report annually to Congress on DHS activities that meet the Act's definition of data mining.

For each identified activity, the Act requires DHS to provide the following: (1) a thorough description of the activity and the technology and methodology used; (2) the sources of data used; (3) an analysis of the activity's efficacy; (4) the legal authorities supporting the activity; and (5) an analysis of the activity's impact on privacy and the protections in place to protect privacy. This is the twelfth comprehensive DHS Data Mining Report and the tenth report prepared pursuant to the Act. Two annexes to this report, which include Law Enforcement Sensitive information and Sensitive Security Information, are being provided separately to Congress as required by the Act.

With the creation of DHS, Congress authorized the Department to engage in data mining and the use of other analytical tools in furtherance of Departmental goals and objectives. Consistent with the rigorous compliance process it applies to all DHS programs and systems, the DHS Privacy Office works closely with the programs discussed in this report to ensure that they employ data mining in a manner that both supports the Department's mission to protect the homeland and protects privacy.



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**Pursuant to congressional requirements, this report is being provided to the following Members of Congress:**

**The Honorable Michael Pence**

President, U.S. Senate

**The Honorable Paul D. Ryan**

Speaker, U.S. House of Representatives

**The Honorable Ron Johnson**

Chairman, U.S. Senate Committee on Homeland Security and Governmental Affairs

**The Honorable Claire McCaskill**

Ranking Member, U.S. Senate Committee on Homeland Security and Governmental Affairs

**The Honorable Charles Grassley**

Chairman, U.S. Senate Committee on the Judiciary

**The Honorable Dianne Feinstein**

Ranking Member, U.S. Senate Committee on the Judiciary

**The Honorable Richard Burr**

Chairman, U.S. Senate Select Committee on Intelligence

**The Honorable Mark Warner**

Vice Chairman, U.S. Senate Select Committee on Intelligence

**The Honorable Michael McCaul**

Chairman, U.S. House of Representatives Committee on Homeland Security

**The Honorable Bennie G. Thompson**

Ranking Member, U.S. House of Representatives Committee on Homeland Security

**The Honorable Harold W. “Trey” Gowdy, III**

Chairman, U.S. House of Representatives Committee on Oversight and Government Reform

**The Honorable Elijah E. Cummings**

Ranking Member, U.S. House of Representatives Committee on Oversight and Government Reform

**The Honorable Robert W. Goodlatte**

Chairman, U.S. House of Representatives Committee on the Judiciary

**The Honorable Jerrold Lewis Nadler**

Ranking Member, U.S. House of Representatives Committee on the Judiciary

**The Honorable Devin Nunes**

Chairman, U.S. House of Representatives Permanent Select Committee on Intelligence

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**The Honorable Adam Schiff**

Ranking Member, U.S. House of Representatives Permanent Select Committee on Intelligence

Inquiries relating to this report may be directed to the DHS Office of Legislative Affairs at 202-447-5890.

Sincerely,

A handwritten signature in black ink, appearing to read "Philip S. Kaplan". The signature is fluid and cursive, with a long horizontal stroke at the end.

Philip S. Kaplan  
Chief Privacy Officer  
U.S. Department of Homeland Security

## EXECUTIVE SUMMARY

The Department of Homeland Security (DHS) Privacy Office is providing this report to Congress pursuant to Section 804 of the Implementing Recommendations of the 9/11 Commission Act of 2007 (9/11 Commission Act), entitled the Federal Agency Data Mining Reporting Act of 2007 (Data Mining Reporting Act or the Act).<sup>1</sup> This report discusses activities currently deployed or under development in the Department that meet the Data Mining Reporting Act's definition of data mining, and provides the information set out in the Act's reporting requirements for data mining activities.

In the 2016 DHS Data Mining Report,<sup>2</sup> the DHS Privacy Office discussed the following Departmental programs that engage in data mining, as defined by the Act:

- The Automated Targeting System (ATS), which is administered by U.S. Customs and Border Protection (CBP) and includes modules for inbound (ATS-N) and outbound (ATS-AT) cargo, land border crossings (ATS-L), and passengers (ATS-P);
- The Analytical Framework for Intelligence (AFI), which is administered by CBP;
- The FALCON Data Analysis and Research for Trade Transparency System (DARTTS), which is administered by U.S. Immigration and Customs Enforcement (ICE);
- The FALCON-Roadrunner system, which is administered by ICE;
- The DHS Data Framework, which is a DHS-wide initiative;
- The SOCRATES Pilot Program, which is administered by CBP; and
- The Fraud Detection and National Security – Data System (FDNS-DS)/ATLAS, which is administered by the U.S. Citizenship and Immigration Services (USCIS)/Fraud Detection and National Security Directorate (FDNS).

This year's report, covering the period January 1 through December 31, 2017, provides updates on modifications, additions, and other developments to the above referenced programs.

DHS is also providing two annexes to this report, which include Law Enforcement Sensitive information and Sensitive Security Information, to Congress as required by the Act.

The *Homeland Security Act of 2002* expressly authorizes the Department to use data mining, among other analytical tools, in furtherance of its mission.<sup>3</sup> DHS exercises this authority with respect to the programs discussed in this report, all of which the DHS Chief Privacy Officer has reviewed for their potential impact on privacy.

The Chief Privacy Officer's authority for reviewing DHS data mining activities stems from Section 222 of the *Homeland Security Act*, which states that the Chief Privacy Officer is responsible for "assuring that the [Department's] use of technologies sustain[s], and do[es] not erode, privacy protections relating to the use, collection, and disclosure of personal

<sup>1</sup> 42 U.S.C. § 2000ee-3.

<sup>2</sup> 2016 DHS Data Mining Report available at:

<https://www.dhs.gov/sites/default/files/publications/2016%20Data%20Mining%20Report%20FINAL.pdf>

<sup>3</sup> 6 U.S.C. § 121(d)(13).

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information.”<sup>4</sup>

The DHS Privacy Office implements the Chief Privacy Officer’s authorities through privacy compliance policies and procedures, which are based on a set of eight Fair Information Practice Principles (FIPPs) rooted in the tenets of the Privacy Act.<sup>5</sup> The FIPPs serve as DHS’s core privacy framework. They are memorialized in the Privacy Office’s Privacy Policy Guidance Memorandum 2008-01/Privacy Policy Directive 140-06, The Fair Information Practice Principles: Framework for Privacy Policy at the Department of Homeland Security (December 29, 2008)<sup>6</sup> and in Department-wide directives including, Directive 047-01, Privacy Policy and Compliance.<sup>7</sup> The Office applies the FIPPs to the DHS activities that involve data mining.<sup>8</sup>

As described more fully below, the DHS Privacy Office’s privacy compliance process requires components and offices that use systems and manage programs that collect, ingest, maintain, and use Personally Identifiable Information (PII) and other information relating to individuals to complete privacy documentation. In doing so, by policy, the DHS Privacy Office requires components and offices to complete a Privacy Threshold Analysis (PTA) to determine whether a Department program or system has privacy implications, and if additional privacy compliance documentation is required. For instance, this documentation consists of a Privacy Impact Assessment (PIA), generally required by the E-Government Act of 2002,<sup>9</sup> and a System of Records Notice (SORN), required by the Privacy Act of 1974,<sup>10</sup> before the programs become operational. All programs discussed in this report have either issued new or updated PIAs, or are in the process of doing so; all are also covered by DHS SORNs.

While each program described below engages to some extent in data mining, no decisions about individuals are made based solely on data mining results. In all cases, DHS employees analyze the results of data mining, and then apply their own judgment and expertise in making determinations about individuals initially identified through data mining activities. The DHS Privacy Office works closely with each of these programs to ensure that required privacy compliance documentation is current, that personnel receive appropriate privacy training, and that privacy protections are implemented.

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<sup>4</sup> 6 U.S.C. § 142(a)(1).

<sup>5</sup> 5 U.S.C. § 552a.

<sup>6</sup> [http://www.dhs.gov/xlibrary/assets/privacy/privacy\\_policyguide\\_2008-01.pdf](http://www.dhs.gov/xlibrary/assets/privacy/privacy_policyguide_2008-01.pdf).

<sup>7</sup> Directive 047-01 and its accompanying Instruction available at: <https://www.dhs.gov/xlibrary/assets/foia/privacy-policy-compliance-directive-047-01.pdf> and <https://www.dhs.gov/xlibrary/assets/foia/privacy-policy-compliance-instruction-047-01-001.pdf>, respectively. The Directive supersedes DHS Directive 0470.2, Privacy Act Compliance, which was issued in October 2005.

<sup>8</sup> [https://www.dhs.gov/sites/default/files/publications/PPGM%202017-01%20Signed\\_0.pdf](https://www.dhs.gov/sites/default/files/publications/PPGM%202017-01%20Signed_0.pdf)

<sup>9</sup> 44 U.S.C. § 3501 note Section 208 of the E-Government Act.

<sup>10</sup> 5 U.S.C. § 552a(e)(4).



# DHS PRIVACY OFFICE

## 2017 DATA MINING REPORT

### Table of Contents

- EXECUTIVE SUMMARY ..... 1
- I. LEGISLATIVE LANGUAGE ..... 6
- II. DATA MINING AND THE DHS PRIVACY COMPLIANCE PROCESS ..... 8
- III. REPORTING ..... 9
  - A. Automated Targeting System (ATS) ..... 10
    - 1. 2017 Program Update ..... 10
      - a) Non-Immigrant and Immigrant Visa Applications ..... 10
      - b) Overstay Vetting ..... 11
      - c) Trusted Traveler Vetting and Trusted Worker Vetting ..... 12
    - 2. General ATS Program Description ..... 13
      - a) ATS-Inbound (ATS-N) and ATS-Outbound (ATS-AT) Modules ..... 15
      - b) ATS-Passenger (ATS-P) ..... 17
      - c) ATS-Land Module (ATS-L) ..... 20
    - 3. ATS Privacy Impacts and Privacy Protections ..... 22
  - B. Analytical Framework for Intelligence (AFI) ..... 24

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1.	2017 Program Update .....	24
2.	Program Description .....	24
3.	Technology and Methodology.....	26
4.	Data Sources .....	27
5.	Efficacy .....	28
6.	Laws and Regulations .....	28
7.	Privacy Impact and Privacy Protections.....	29
C.	FALCON Data Analysis and Research for Trade Transparency System (FALCON-DARTTS)..	31
1.	2017 Program Update.....	31
2.	Program Description .....	31
3.	Technology and Methodology.....	33
4.	Data Sources .....	35
5.	Efficacy .....	36
6.	Laws and Regulations .....	36
7.	Privacy Impact and Privacy Protections.....	37
D.	FALCON-Roadrunner .....	39
1.	2017 Program Update.....	39
2.	Program Description .....	39
3.	Technology and Methodology.....	40
4.	Data Sources .....	41
5.	Efficacy .....	43
6.	Laws and Regulations .....	43
7.	Privacy Impact and Privacy Protections.....	44
E.	DHS Data Framework.....	45
1.	2017 Program Update.....	45
2.	Program Description .....	46
3.	Technology and Methodology.....	47
4.	Data Sources .....	48
5.	Efficacy .....	49
6.	Laws and Regulations .....	49
7.	Privacy Impact and Privacy Protections.....	50
F.	SOCRATES Pilot.....	50
G.	Fraud Detection and National Security – Data System (FDNS-DS/ATLAS).....	52

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1. Program Description .....52

2. Technology and Methodology.....53

3. Data Sources .....55

4. Efficacy .....56

5. Laws and Regulations .....57

6. Privacy Impact and Privacy Protections.....57

IV. CONCLUSIONS ..... 59

V. APPENDIX..... 60

## I. LEGISLATIVE LANGUAGE

The Federal Agency Data Mining Reporting Act of 2007, 42 U.S.C. § 2000ee-3, includes the following requirement:

(c) Reports on data mining activities by Federal agencies

(1) Requirement for report - The head of each department or agency of the Federal Government that is engaged in any activity to use or develop data mining shall submit a report to Congress on all such activities of the department or agency under the jurisdiction of that official. The report shall be produced in coordination with the privacy officer of that department or agency, if applicable, and shall be made available to the public, except for an annex described in subparagraph (3).

(2) Content of report - Each report submitted under subparagraph (A) shall include, for each activity to use or develop data mining, the following information:

(A) A thorough description of the data mining activity, its goals, and, where appropriate, the target dates for the deployment of the data mining activity.

(B) A thorough description of the data mining technology that is being used or will be used, including the basis for determining whether a particular pattern or anomaly is indicative of terrorist or criminal activity.

(C) A thorough description of the data sources that are being or will be used.

(D) An assessment of the efficacy or likely efficacy of the data mining activity in providing accurate information consistent with and valuable to the stated goals and plans for the use or development of the data mining activity.

(E) An assessment of the impact or likely impact of the implementation of the data mining activity on the privacy and civil liberties of individuals, including a thorough description of the actions that are being taken or will be taken with regard to the property, privacy, or other rights or privileges of any individual or individuals as a result of the implementation of the data mining activity.

(F) A list and analysis of the laws and regulations that govern the information being or to be collected, reviewed, gathered, analyzed, or used in conjunction with the data mining activity, to the extent applicable in the context of the data mining activity.

(G) A thorough discussion of the policies, procedures, and guidelines that are in place or that are to be developed and applied in the use of such data mining activity in order to—

- 
- (i) protect the privacy and due process rights of individuals, such as redress procedures; and
  - (ii) ensure that only accurate and complete information is collected, reviewed, gathered, analyzed, or used, and guard against any harmful consequences of potential inaccuracies.<sup>11</sup>
  - (iii) The Act defines “data mining” as:

a program involving pattern-based queries, searches, or other analyses of 1 or more electronic databases, where—

(A) a department or agency of the Federal Government, or a non-Federal entity acting on behalf of the Federal Government, is conducting the queries, searches, or other analyses to discover or locate a predictive pattern or anomaly indicative of terrorist or criminal activity on the part of any individual or individuals;

(B) the queries, searches, or other analyses are not subject-based and do not use personal identifiers of a specific individual, or inputs associated with a specific individual or group of individuals, to retrieve information from the database or databases; and

(C) the purpose of the queries, searches, or other analyses is not solely—

(i) the detection of fraud, waste, or abuse in a Government agency or program;

or

(ii) the security of a Government computer system.<sup>12</sup>

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<sup>11</sup> 42 U.S.C. § 2000ee-3(c).

<sup>12</sup> 42 U.S.C. § 2000ee-3(b)(1). “[T]elephone directories, news reporting, information publicly available to any member of the public without payment of a fee, or databases of judicial and administrative opinions or other legal research sources” are not “databases” under the Act. 42 U.S.C. § 2000ee-3(b)(2). Therefore, searches, queries, and analyses conducted solely in these resources are not “data mining” for purposes of the Act’s reporting requirement. Two aspects of the Act’s definition of “data mining” are worth emphasizing. First, the definition is limited to pattern-based electronic searches, queries, or analyses. Activities that use only PII or other terms specific to individuals (e.g., a license plate number) as search terms are excluded from the definition. Second, the definition is limited to searches, queries, or analyses that are conducted for the purpose of identifying predictive patterns or anomalies that are indicative of terrorist or criminal activity by an individual or individuals. Research in electronic databases that produces only a summary of historical trends, therefore, is not “data mining” under the Act.

## II. DATA MINING AND THE DHS PRIVACY COMPLIANCE PROCESS

The Department of Homeland Security (DHS or the Department) Privacy Office is the first statutorily mandated privacy office in the Federal Government, as set forth in Section 222 of the *Homeland Security Act*.<sup>13</sup> Its mission is to protect all individuals by embedding and enforcing privacy protections and transparency in all DHS activities while supporting the Department’s mission to protect the homeland.

The *Homeland Security Act* expressly authorizes the Department to use data mining, among other analytical tools, in furtherance of its mission.<sup>14</sup> DHS exercises this authority in connection with the programs discussed in this report, all of which have been reviewed by the Chief Privacy Officer.

The DHS Chief Privacy Officer’s authority for reviewing DHS data mining activities stems from Section 222 of the *Homeland Security Act*, which states that the DHS Chief Privacy Officer is responsible for “assuring that the [Department’s] use of technologies sustain[s], and do[es] not erode, privacy protections relating to the use, collection, and disclosure of personal information.”<sup>15</sup>

The DHS Privacy Office implements the Chief Privacy Officer’s authorities through privacy compliance policies and procedures, which are based on a set of eight Fair Information Practice Principles (FIPPs) rooted in the tenets of the *Privacy Act of 1974*. The FIPPs serve as DHS’s core privacy framework. They are memorialized in the Privacy Policy Guidance Memorandum 2008-01/Privacy Policy Directive 140-06, The Fair Information Practice Principles: Framework for Privacy Policy at the Department of Homeland Security (December 29, 2008)<sup>16</sup> and in Department-wide directives including Directive 047-01, Privacy Policy and Compliance.<sup>17</sup> The FIPPs govern the appropriate collection, maintenance, use, and dissemination of Personally Identifiable Information (PII) at the Department in fulfilment of the Department’s mission to preserve, protect, and secure the homeland. The Office applies the FIPPs to the DHS activities that involve data mining.

<sup>13</sup> 6 U.S.C. § 142. The authorities and responsibilities of the Chief Privacy Officer were last amended by on August 3, 2007 by the Implementing Recommendations of the 9/11 Commission Act of 2007, Pub. L. No. 110-53. The 9/11 Commission Act of 2007 provided the Chief Privacy Officer with investigative authority, the power to issue subpoenas to non-Federal entities, and the ability to administer oaths, affirmations, or affidavits necessary to investigate or report on matters relating to responsibilities under Section 222 of the Homeland Security Act. These responsibilities are further described on the DHS Privacy Office website (<http://www.dhs.gov/privacy>) and in the DHS Privacy Office 2016 Annual Report to Congress, available at: <https://www.dhs.gov/sites/default/files/publications/dhsprivacyoffice2016annualreport-FINAL-12122016.pdf>.

<sup>14</sup> The Act states that, “The responsibilities of the Secretary relating to intelligence and analysis and infrastructure protection shall be as follows . . . To establish and utilize, in conjunction with the chief information officer of the Department, a secure communications and information technology infrastructure, including data mining and other advanced analytical tools, in order to access, receive, and analyze data and information in furtherance of the responsibilities under this section, and to disseminate information acquired and analyzed by the Department, as appropriate.” 6 U.S.C. § 121(d)(13). This responsibility is carried out by the Under Secretary for Intelligence and Analysis pursuant to 6 U.S.C. § 121(c).

<sup>15</sup> 6 U.S.C. § 142(a)(1).

<sup>16</sup> [http://www.dhs.gov/xlibrary/assets/privacy/privacy\\_policyguide\\_2008-01.pdf](http://www.dhs.gov/xlibrary/assets/privacy/privacy_policyguide_2008-01.pdf).

<sup>17</sup> Directive 047-01 and its accompanying Instruction available at: <https://www.dhs.gov/xlibrary/assets/foia/privacy-policy-compliance-directive-047-01.pdf> and <https://www.dhs.gov/xlibrary/assets/foia/privacy-policy-compliance-instruction-047-01-001.pdf>, respectively. The Directive supersedes the DHS Directive 0470.2, Privacy Act Compliance, which was issued in October 2005.

DHS uses three mechanisms to assess and enforce privacy compliance for DHS activities that involve data mining: (1) the Privacy Threshold Analysis (PTA),<sup>18</sup> (2) the Privacy Impact Assessment (PIA);<sup>19</sup> and (3) the System of Records Notice (SORN).<sup>20</sup> Each of these documents has a distinct function in the DHS privacy compliance framework. Together, they promote transparency and demonstrate accountability.

The DHS Privacy Office identifies DHS programs that engage in data mining through several processes in addition to its routine compliance oversight activities. The Office reviews all of the Department's Exhibit 300 budget submissions to the Office of Management and Budget (OMB) to learn of programs or systems that use PII and to determine whether they address privacy appropriately.<sup>21</sup> The Office uses the PTA to review all information technology systems that are going through the security authorization process required by the Federal Information Security Modernization Act of 2014 (FISMA)<sup>22</sup> to determine whether they maintain PII. The PIA process also provides the Office insight into technologies used or intended to be used by DHS. These oversight activities provide the Office opportunities to learn about proposed data mining activities and to engage program managers in discussions about potential privacy issues.

The DHS Privacy Office has worked closely with the relevant DHS Components to ensure that privacy compliance documentation required for each program described in this report is current. All of these programs have either issued new or updated PIAs or are in the process of doing so; all are also covered by DHS SORNs.

### III. REPORTING

In the 2016 DHS Data Mining Report,<sup>23</sup> the DHS Privacy Office discussed the following Departmental programs that engage in data mining, as defined by the Act:

- The Automated Targeting System (ATS), which is administered by U.S. Customs and Border Protection (CBP) and includes modules for inbound (ATS-N) and outbound (ATS-AT) cargo, land border crossings (ATS-L), and passengers (ATS-P);
- The Analytical Framework for Intelligence (AFI), which is administered by CBP;
- The FALCON Data Analysis and Research for Trade Transparency System (DARTTS), which is administered by U.S. Immigration and Customs Enforcement (ICE);

<sup>18</sup> The DHS privacy compliance process begins with a PTA, a required document by DHS policy that serves as the official determination by the DHS Privacy Office as to whether a Department program or system has privacy implications, and if additional privacy compliance documentation is required, such as a Privacy Impact Assessment (PIA) and/or System of Records Notice (SORN). Additional information concerning PTAs is available at: <http://www.dhs.gov/compliance>.

<sup>19</sup> The E-Government Act mandates PIAs for all federal agencies when there are new electronic collections of, or new technologies applied to, PII. 44 U.S.C. § 3501 note. As a matter of policy, DHS extends this requirement to all programs, systems, and activities that involve PII or are otherwise privacy-sensitive.

<sup>20</sup> The Privacy Act requires federal agencies to publish SORNs for any group of records under agency control from which information is retrieved by the name of an individual or by an identifying number, symbol, or other identifier assigned to the individual. 5 U.S.C. §§ 552a(a)(5), (e)(4).

<sup>21</sup> The DHS Privacy Office reviews all major DHS IT programs on an annual basis, prior to submission to OMB for inclusion in the President's annual budget. See Office of Mgmt. & Budget, Executive Office of the President, OMB Circular No. A-11, Section 300, Planning, Budgeting, Acquisition, and Management of Capital Assets, available at [http://www.whitehouse.gov/sites/default/files/omb/assets/a11\\_current\\_year/s300.pdf](http://www.whitehouse.gov/sites/default/files/omb/assets/a11_current_year/s300.pdf).

<sup>22</sup> Title 44, U.S.C., Chapter 35, Subchapter II (Information Security).

<sup>23</sup> 2016 DHS Data Mining Report, available at <https://www.dhs.gov/publication/dhs-data-mining-reports>.

- The FALCON-Roadrunner system, which is administered by ICE;
- The DHS Data Framework, which is a DHS-wide initiative;
- The SOCRATES Pilot Program, which is administered by CBP; and
- The Fraud Detection and National Security – Data System (FDNS-DS)/ATLAS, which is administered by the U.S. Citizenship and Immigration Services (USCIS)/Fraud Detection and National Security Directorate (FDNS).

This section of the 2017 report presents complete descriptions of these programs together with updates on modifications, additions, and other developments that have occurred in the current reporting year.

## A. Automated Targeting System (ATS)

### 1. 2017 Program Update

The Department of Homeland Security (DHS) U.S. Customs and Border Protection (CBP) operates the Automated Targeting System (ATS). ATS is a decision support tool that compares traveler, cargo, and conveyance information against law enforcement, intelligence, and other enforcement data. ATS runs risk-based rules, predictive analytics, and queries to identify patterns indicative of terrorist or criminal activity. Targeting activities were based on derogatory information about known or suspected terrorists. But, during the 2017 reporting period, CBP published an ATS Privacy Impact Assessment (PIA)<sup>24</sup> update to notify the public of new populations that ATS is now vetting. The new/updated populations include: Secure Flight Passenger Data,<sup>25</sup> Trusted Travelers and Trusted Workers, immigration benefit applicants and petitioners, international aviation crew members, and CBP employees and applicants.

#### a) Non-Immigrant and Immigrant Visa Applications

As described in the 2012 ATS PIA<sup>26</sup> and subsequent PIA updates, and reported in the 2013 DHS Data Mining Report,<sup>27</sup> ATS-P (under the new User Interface of Unified Passenger) is used to vet non-immigrant visa applications for the U.S. Department of State (DoS). In January 2013, CBP and DoS began pre-adjudication investigative screening and vetting for non-immigrant visas. In FY 2017, DoS began sending immigrant visa applications for vetting to CBP using the same process as non-immigrants. DoS sends online visa application data to ATS for pre-adjudication vetting. ATS vets the visa application and provides a response to the DoS's Consular Consolidated Database (CCD)<sup>28</sup> indicating whether DHS has identified derogatory information about the individual based

<sup>24</sup> January 2017 CBP ATS PIA update available at: <https://www.dhs.gov/sites/default/files/publications/privacy-pia-cbp006-ats-november2017.pdf>.

<sup>25</sup> 49 cfr part 1560.3 Secure Flight Passenger Data or (SFPD) means information regarding a passenger or non-traveling individual that a covered aircraft operator or covered airport operator transmits to TSA, to the extent available, pursuant to § 1560.101. SFPD is the following information regarding a passenger or non-traveling individual: (1) Full name, (2) Date of birth, (3) Gender, (4) Redress number or Known Traveler Number (once implemented), (5) Passport information, (6) Reservation control number, (7) Record sequence number, (8) Record type, (9) Passenger update indicator, (10) Traveler reference number, and (11) Itinerary information.

<sup>26</sup> The ATS PIA is available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>27</sup> 2013 DHS Data Mining Report: <https://www.dhs.gov/sites/default/files/publications/dhs-privacy-2013-dhs-data-mining-report.pdf>.

<sup>28</sup> The CCD PIA is available at: [https://foia.state.gov/docs/pia/consularconsolidateddatabase\\_ccd.pdf](https://foia.state.gov/docs/pia/consularconsolidateddatabase_ccd.pdf).

on, for example, risk-based rules. Applications of individuals for whom derogatory information is identified through ATS are either vetted directly in ATS, if a disposition can be determined without further research, or additional processing occurs in the ICE Visa Security Program Tracking System (VSPTS-Net)<sup>29</sup> case management system, after which updated information (including relevant case notes) regarding eligibility is provided to both CBP and CCD. The *Enhanced Border Security and Visa Entry Reform Act of 2002* (EBSVERA), authorizes the use of ATS-P for screening non-immigrant and immigrant visas.<sup>30</sup> **Overstay Vetting**

In July 2014, Phase 3 of the One DHS Overstay Vetting effort went live, transitioning from a pilot project to operational status. The goal of the Overstay Vetting effort is to allow ICE to deploy its investigative resources efficiently to locate high-risk overstays and initiate criminal investigations or removal proceedings against those individuals. Overstay Vetting employs the Overstay Hotlist, a list of overstay leads derived from data obtained through ATS, to develop priorities based on associated risk patterns related to national security and public safety. This prioritized list of overstay leads is then passed on to ICE's LeadTrac<sup>31</sup> system for further investigation and possible enforcement action. In addition to prioritizing overstay leads, ATS is also used to vet overstay candidates received from DHS/CBP's Arrival and Departure Information System (ADIS),<sup>32</sup> in order to identify potential additional information on visa overstay candidates based on supporting data available from other source systems through ATS, i.e., border crossing information (derived from DHS/CBP's Border Crossing Information (BCI) system)<sup>33</sup>, Form I-94 Notice of Arrival/Departure records (derived from DHS/CBP's Non-immigrant Information System (NIIS))<sup>34</sup>, and data from the DHS/ICE Student Exchange Visitor Information System (SEVIS).<sup>35</sup>

As with the Phase 2 Pilot, discussed in DHS's previous Data Mining Reports,<sup>36</sup> Phase 3 also uses foreign national overstay data obtained through system processing in ATS and ADIS to identify certain individuals who have remained in the United States beyond their authorized period of admission (overstays) and who may present a heightened security risk. In January 2014, ADIS transitioned from the Office of Biometric Identity Management (OBIM) in the DHS National Protection and Programs Directorate (NPPD) to CBP.<sup>37</sup> CBP runs biographical information on identified and possible overstays from ADIS against risk-based rules in ATS based on information

<sup>29</sup> The VSPTS-Net PIA is available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>30</sup> Pub.L.No. 107-173, 8 U.S.C. §§1701 – 1778(2018).

<sup>31</sup> LeadTrac is an immigration status violator database that the Homeland Security Investigations (HSI) Counterterrorism and Criminal Exploitation Unit at ICE uses to identify and track nonimmigrant visitors to the United States who overstay their period of admission or otherwise violate the terms of admission. The identities of potential violators are then sent to ICE field offices for appropriate enforcement action. LeadTrac is covered by the DHS/ICE-009 - External Investigations SORN, available at: <http://www.gpo.gov/fdsys/pkg/FR-2010-01-05/html/E9-31269.htm>. The LeadTrac PIA is available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>32</sup> The PIA for ADIS is available at: <http://www.dhs.gov/privacy-impact-assessments> and the SORN for ADIS is available at: <http://www.gpo.gov/fdsys/pkg/FR-2013-05-28/html/2013-12390.htm>. The ATS PIA and the Overstay Vetting Pilot PIA, which also address this activity, are available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>33</sup> DHS/CBP-007 Border Crossing Information (BCI), December 13, 2016, 81 FR 89957. The BCI PIA is available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>34</sup> DHS/CBP-016 - Nonimmigrant Information System March 13, 2015 80 FR 13398.

<sup>35</sup> The PIA for SEVIS is available at: <http://www.dhs.gov/privacy-impact-assessments> and the SORN for SEVIS is available at: <http://www.gpo.gov/fdsys/pkg/FR-2010-01-05/html/E9-31268.htm>.

<sup>36</sup> 2013 Data Mining Report is available at: <http://www.dhs.gov/sites/default/files/publications/dhs-privacy-2013-dhs-data-mining-report.pdf>. The 2014 Data Mining Report is available at: [http://www.dhs.gov/sites/default/files/publications/2014%20DHS%20Data%20Mining%20Report%20Signed\\_1.pdf](http://www.dhs.gov/sites/default/files/publications/2014%20DHS%20Data%20Mining%20Report%20Signed_1.pdf). The 2015 Data Mining Report is available at: <https://www.dhs.gov/sites/default/files/publications/2015%20Data%20Mining%20Report%20FINAL.pdf>. The 2016 Data Mining Report is available at: <https://www.dhs.gov/sites/default/files/publications/2016%20Data%20Mining%20Report%20FINAL.pdf>.

<sup>37</sup> See Consolidated Appropriations Act, 2014, Pub. L. No. 113-76 (Jan. 17, 2014).

derived from past investigations and intelligence. CBP provides results of these analyses from ADIS to ICE for further processing. These activities are covered by PIAs for ATS,<sup>38</sup> the US-VISIT Technical Reconciliation Analysis Classification System,<sup>39</sup> and Overstay Vetting.<sup>40</sup>

In October 2015, the Overstay candidate's process was eliminated, and the weekly Overstay Leads process was moved to a daily process, streamlining the overall processing of Overstays. In May 2016, the data feed from the ICE SEVIS system was upgraded to a daily feed, to include additional data elements necessary for Overstay processing. In FY 18, CBP is working with ICE's Counterterrorism and Criminal Exploitation Unit to enhance the current interface with LeadTrac to include the additional data elements.

The legal authorities for the One DHS Overstay Vetting Pilot include: the *Illegal Immigration Reform and Immigrant Responsibility Act of 1996*, Public Law 104-208; the *Immigration and Naturalization Service Data Management Improvement Act of 2000*, Public Law 106-215; the *Visa Waiver Permanent Program Act of 2000*, Public Law 106-396; the *Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act (USA PATRIOT Act) of 2001*, Public Law 107-56; EBSVERA; and the *Implementing Recommendations of the 9/11 Commission Act of 2007*, Public Law 110-53.<sup>41</sup>

## b) Trusted Traveler and Trusted Worker Vetting

The vetting process for CBP's Trusted Traveler Programs and Trusted Worker populations has evolved from CBP's legacy Vetting Center Module (VCM) to the ATS vetting process. Previously, CBP's VCM performed a series of system queries to gather data on Trusted Traveler, Trusted Worker, and Registered Traveler Program applicants. CBP Officers analyzed and assessed this data to be utilized during the enrollment interview. The ATS Trusted Traveler Vetting Program is a modernized version of VCM.

In October 2016, all targeting for new and updated applications were fully transitioned to the ATS platform, as part of the TECS Modernization effort to interface with modernized Department of Justice's (DOJ) National Crime Information Center (NCIC) and National Law Enforcement Telecommunications System (Nlets) queries.<sup>42</sup> ATS provides improved vetting algorithms, which are designed to assist in identifying more refined matches to derogatory records. The results of the vetting analysis provide a consolidated view of the applicant's information, derogatory matches, as well as other system checks. In November 2015, the ATS Trusted Traveler Vetting capabilities included a new grouping of Trusted Traveler applications that are marked as candidates for Auto-Conditional approval if certain conditions are met in the automated risk assessment process. This capability was evaluated during a Pilot, and based on careful review of the applications that were marked for Auto-Conditional approval, CBP's Office of Field Operations authorized turning this capability on in March 2016. In FY 2017, CBP enabled a recurrent vetting process beyond the

<sup>38</sup> The ATS PIA is available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>39</sup> DHS/NPPD/USVISIT/PIA-004 is available at: <http://www.dhs.gov/privacy-impact-assessments>. CBP will update the ATS and ADIS PIAs to reflect the move of ADIS from OBIM to CBP.

<sup>40</sup> The DHS Overstay Vetting Pilot PIA was issued on December 29, 2011, to add another layer of analysis to this process that can be updated as the program matures. This PIA lists all of the SORNs applicable to this program and is available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>41</sup> A complete list of authorities is included in the PIA for the Overstay Vetting Pilot, available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>42</sup> TECS maintains information from the Federal Bureau of Investigation (FBI) Terrorist Screening Center's (TSC) Terrorist Screening Data Base (TSDB) and provides access to DOJ's NCIC, which contains information about individuals with outstanding wants and warrants, and to Nlets, a clearinghouse for state wants and warrants as well as information from state Departments of Motor Vehicles (DMV).

initial submission for trusted travelers through the ATS platform.

The legal authorities for the ATS Trusted Traveler Vetting include: Section 7208 of the Intelligence Reform and Terrorism Prevention Act of 2004 (IRTPA), as amended, 8 U.S.C. § 1365b; Section 215 of the Immigration and Nationality Act, as amended, 8 U.S.C. § 1185; Section 402 of the Homeland Security Act of 2002, as amended, 6 U.S.C. § 202; Section 404 of the EBSVERA, 8 U.S.C. § 1753; and Section 433 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1433; 8 C.F.R. Parts 103 and 235.

## 2. General ATS Program Description

CBP owns and manages ATS, an intranet-based enforcement and decision support tool that is the cornerstone for all CBP targeting efforts. ATS compares traveler, cargo, and conveyance information against intelligence and other enforcement data by incorporating risk-based targeting rules and assessments. CBP uses ATS to improve the collection, use, analysis, and dissemination of information that is gathered for the primary purpose of targeting, identifying, and preventing potential terrorists and terrorist weapons from entering the United States. CBP also uses ATS to identify other potential violations of U.S. laws that CBP enforces at the border under its authorities. ATS allows CBP officers charged with enforcing U.S. law and preventing terrorism and other crimes to focus their efforts on the travelers, conveyances, and cargo shipments that most warrant greater scrutiny. ATS standardizes names, addresses, conveyance names, and similar data so these data elements can be more easily associated with other business data and personal information to form a more complete picture of a traveler, import, or export in context with previous behavior of the parties involved. Traveler, conveyance, and shipment data are processed through ATS and are subject to a real-time, rules-based evaluation.

ATS consists of five modules that focus on exports,<sup>43</sup> imports, passengers and crew (airline passengers and crew on international flights, and passengers and crew on international sea carriers), private vehicles and travelers crossing at land borders, and a workspace to support the creation and retention of analytical reports. This report discusses these modules: ATS-N and ATS-AT (both of which involve the analysis of cargo), ATS-L (which involves analysis of information about vehicles and their passengers crossing the land border), ATS-P (which involves analysis of information about certain travelers), and the ATS Targeting Framework (ATS-TF) (a platform for temporary and permanent storage of data).

The U.S. Customs Service, a legacy organization of CBP, traditionally employed computerized tools to target potentially high-risk cargo entering, exiting, and transiting the United States, or persons who may be importing or exporting merchandise in violation of United States law. ATS was originally designed as a rules-based program to identify such cargo and did not apply to travelers. ATS-N and ATS-AT<sup>44</sup> became operational in 1997. ATS-P (the new User Interface is now referred to as Unified Passenger, or UPAX)<sup>45</sup> became operational in 1999 and is now even more critical to CBP's mission. ATS-P allows CBP officers to determine whether a variety of

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<sup>43</sup> At the time of this report, CBP maintains the export targeting functionality in ATS. In January 2014, the Automated Export System (AES) was re-engineered onto the ATS IT platform and is covered by the Export Information System (EIS) privacy compliance documentation. CBP has made no changes to the manner in which it targets exports; however, access to this targeting functionality now occurs by logging in through AES. The location of the login to the export targeting functionality in AES is intended to improve efficiency related to user access to export data and its associated targeting rules and results. CBP published DHS/CBP/PIA-020 Export Information System (EIS) PIA on January 31, 2014, available at [www.dhs.gov/privacy](http://www.dhs.gov/privacy).

<sup>44</sup> Functionality of ATS-AT was modernized when the AES system was recently re-engineered and deployed by CBP.

<sup>45</sup> UPAX is an updated user interface that replaced the older functionality of ATS-P.

potential risk indicators exist for travelers or their itineraries that may warrant additional scrutiny. ATS-P maintains Passenger Name Record (PNR) data, which is data provided to airlines and travel agents by or on behalf of air passengers seeking to book travel. CBP began receiving PNR data voluntarily from certain air carriers in 1997. Currently, CBP collects this information to the extent it is collected by carriers in connection with a flight into or out of the United States, as part of CBP's border enforcement mission and pursuant to the Aviation and Transportation Security Act of 2001 (ATSA).<sup>46</sup>

ATS ingests various data in real-time from the following DHS and CBP systems: the Automated Commercial System (ACS), the Automated Manifest System (AMS), the Advance Passenger Information System (APIS), the Automated Commercial Environment (ACE), the Electronic System for Travel Authorization (ESTA), Electronic Visa Update System (EVUS),<sup>47</sup> Global Enrollment System (GES), the Nonimmigrant Information System (NIIS), BCI, the Seized Asset and Case Tracking System (SEACATS), ICE's SEVIS and Enforcement Integrated Database (EID), and TECS.<sup>48</sup> TECS maintains information from the Federal Bureau of Investigation (FBI) Terrorist Screening Center's (TSC)<sup>49</sup> TSDB and provides access to DOJ's NCIC, which contains information about individuals with outstanding wants and warrants, and to Nlets, a clearinghouse for state wants and warrants as well as information from state Departments of Motor Vehicles (DMV). ATS collects PNR data directly from air carriers. ATS also collects data from certain airlines, air cargo consolidators (freight forwarders), and express consignment services in ATS-N. ATS accesses data from these sources, which collectively include: electronically filed bills of lading (i.e., forms provided by carriers to confirm the receipt and transportation of on-boarded cargo to U.S. ports), entries, and entry summaries for cargo imports; Electronic Export Information (EEI) (formerly referred to as Shippers' Export Declarations) submitted to the Automated Export System (AES) and transportation bookings and bills for cargo exports; manifests for arriving and departing passengers; land border crossing and referral records for vehicles crossing the border; airline reservation data; non-immigrant entry records; records from secondary referrals, incident logs, and suspect and violator indices; seizures; and information from the TSDB and other government databases regarding individuals with outstanding wants and warrants and other high-risk entities.

<sup>46</sup> 49 U.S.C. § 44909. The regulations implementing the PNR provisions of ATSA are codified at 19 C.F.R. § 122.49d.

<sup>47</sup> In October 2016, as described in the 2016 data mining report, CBP began vetting Electronic Visa Update System (EVUS) applications in ATS, in support of the launch of the public facing EVUS application. EVUS is the online system used by nationals of China holding a 10-year B1/B2, B1 or B2 (visitor) visa periodically to update basic biographic information to facilitate their travel to the United States. In addition to a valid visa, such travelers will be required to complete an EVUS enrollment to be admitted into the United States. DHS and DoS established EVUS under the authority granted in the Immigration and Nationality Act (INA). Section 221(a)(1)(B) of the INA authorizes the State Department to issue nonimmigrant visas to foreign nationals. Section 221(c) of the INA provides that "[a] nonimmigrant visa shall be valid for such periods as shall be by regulations prescribed," and section 221(i) of the INA authorizes the Secretary of State to revoke visas at any time, in his or her discretion. Section 214(a)(1) of the INA specifically authorizes DHS to create conditions for an alien's admission, and Section 215(a)(1) of the INA provides that aliens' entry into the United States may be limited and conditioned by DHS. Section 103 of the INA and 8 CFR 2.1 authorize the Secretary of Homeland Security to administer and enforce the INA and other laws relating to the immigration and naturalization of aliens, and to establish such regulations as he deems necessary for carrying out his authority. CBP has no modifications or updates to EVUS in the FY 2017 reporting period.

<sup>48</sup> PIAs for these programs can be found at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>49</sup> The TSC is an entity established by the Attorney General in coordination with the Secretary of State, the Secretary of Homeland Security, the Director of the Central Intelligence Agency, the Secretary of the Treasury, and the Secretary of Defense. The Attorney General established the TSC pursuant to Homeland Security Presidential Directive 6, available at <https://www.gpo.gov/fdsys/pkg/PPP-2003-book2/pdf/PPP-2003-book2-doc-pg1174.pdf>, to consolidate the Federal Government's approach to terrorism screening and provide for the appropriate and lawful use of terrorist information in screening and law enforcement processes. The TSC maintains the Federal Government's consolidated terrorist watch list, known as the TSDB.

In addition to providing a risk-based assessment system, ATS provides a graphical user interface for many of the underlying legacy systems from which ATS pulls information. This interface improves the user experience by providing the same functionality in a more rigidly controlled access environment than the source system. Access to this functionality of ATS is restricted by existing technical security and privacy safeguards associated with the source systems.

A large number of rules are included in the ATS modules, so CBP Officers can analyze sophisticated concepts of business activity, which in turn can help identify potentially suspicious behavior. The ATS rules are constantly evolving to meet new threats and be more effective. When evaluating risk, ATS is designed to apply the same methodology to all individuals to preclude any possibility of disparate treatment of individuals or groups.

## a) ATS-Inbound (ATS-N) and ATS-Outbound (ATS-AT) Modules

### i. Program Description

ATS-N assists CBP officers in identifying and selecting for intensive inspection inbound cargo shipments that pose a high risk of containing weapons of mass effect, illegal narcotics, agents of bio-terrorism, threats to U.S. agriculture, or other contraband. ATS-N is available to CBP officers at all ports of entry (i.e., air, land, sea, and rail) and also assists CBP personnel in the Container Security Initiative and Secure Freight Initiative with decision-making processes.

The functionality of ATS-AT was modernized when the AES system was re-engineered and deployed by CBP. AES aids CBP officers in identifying export shipments that pose a high risk of containing goods requiring specific export licenses, illegal narcotics, smuggled currency, stolen vehicles or other contraband, or exports that may otherwise violate U.S. law. This targeting functionality in AES sorts EEI data, compares it to a set of rules, and evaluates it in a comprehensive fashion. This information assists CBP officers in targeting or identifying exports that pose potential aviation safety and security risks (e.g., hazardous materials) or may be otherwise exported in violation of U.S. law.

ATS-N and ATS-AT examine data related to cargo in real time and engage in data mining to provide decision support analysis for the targeting of cargo for suspicious activity. The cargo analysis provided by ATS is intended to add automated anomaly detection to CBP's existing targeting capabilities, to enhance screening of cargo prior to its entry into or departure from the United States.

### ii. Technology and Methodology

ATS-N and ATS-AT do not collect information directly from individuals. The data used in the development, testing, and operation of ATS-N and ATS-AT screening technology is taken from bills of lading and shipping manifest data provided to CBP through AMS, ACS, ACE, and AES by entities engaged in international trade as part of the existing cargo screening process. The results of queries, searches, and analyses conducted in the ATS-N and ATS-AT are used to identify anomalous business behavior, data inconsistencies, abnormal business patterns, and potentially suspicious business activity generally. No decisions about individuals are made solely on the basis of these automated results.

The Security and Accountability For Every (SAFE) Port Act requires CBP to consider the use of advanced algorithms in support of its mission.<sup>50</sup> To that end, as discussed in previous DHS Data Mining Reports, CBP established an Advanced Targeting Initiative, which employs the

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<sup>50</sup> 6 U.S.C. § 943.

development of data mining, machine learning,<sup>51</sup> and other analytic techniques to enhance ATS-N and ATS-AT. This Initiative strives to improve law enforcement capabilities with predictive models and establish performance evaluation measures to assess the effectiveness of ATS screening for inbound and outbound cargo shipments across multimodal conveyances.

Current efforts seek to augment existing predictive models by expanding the use of feedback from identified travel patterns and seizure data. CBP officers and agents use these models to assist them in identifying pattern elements in data collected from the trade and traveling public, and use this information to make determinations regarding examination and clearance. Additionally, CBP continues to develop and test machine learning models or knowledge-engineered scenario-based rules to target specific threats. These system enhancements principally incorporate programming enhancements to automate successful user (manual) practices for broader use and dissemination by ATS users nationally. System enhancements are an attempt to share, broadly and more quickly, best practices to enhance targeting efforts across the CBP mission.

The Advanced Targeting Initiative is part of ATS's maintenance and operation of the ATS-N and ATS-AT. The design and tool-selection processes for data mining, pattern recognition, and machine learning techniques under development in the Advanced Targeting Initiative are being evaluated through user acceptance testing by the National Targeting Center-Cargo (NTC-C). The NTC-C and the CBP Office of Intelligence further support the performance of research on entities and individuals of interest, data queries, data manipulation on large and complex datasets, data management, link analysis, social network analysis,<sup>52</sup> and statistical analysis in support of law enforcement and intelligence operations. Upon successful testing, the programming enhancements are included in maintenance and design updates to system operations and deployed at the national level to provide a more uniform enhancement to CBP operations. This practice will continue to be incorporated into future maintenance protocols for ATS.

### iii. Data Sources

As noted above, ATS-N and ATS-AT do not collect information directly from individuals. The information is either submitted by private entities or persons and initially collected in DHS/CBP source systems (e.g., ACE) in accordance with U.S. legal requirements (e.g., sea, rail, and air manifests); created by ATS as part of its risk assessments and associated rules; or received from a foreign government pursuant to a Memorandum of Understanding and Interconnection Security Agreement.

ATS-N and ATS-AT use the information from source systems to gather information about importers and exporters, cargo, and conveyances used to facilitate the importation of cargo into and the exportation of cargo out of the United States. This information includes PII concerning individuals associated with imported and exported cargo (e.g., brokers, carriers, shippers, buyers, consignees, sellers, exporters, freight forwarders, and crew). ATS-N receives data pertaining to entries and manifests from ACS and ACE, and processes it against a variety of rules to make a rapid, automated assessment of the risk of each import.<sup>53</sup> ATS-AT uses EEI data that exporters file

<sup>51</sup> Machine learning is concerned with the design and development of algorithms and techniques that allow computers to "learn." The major focus of machine learning research is to extract information from data automatically, using computational and statistical methods. This extracted information may then be generalized into rules and patterns.

<sup>52</sup> Social network analysis is a method of ascertaining entity relationships within existing data to assist analysts in predictive modeling, researching targeted individuals or organizations, and visualization of targeted entities.

<sup>53</sup> ATS-N collects information from source systems regarding individuals in connection with the following items including: Sea/Rail Manifests from AMS; Cargo Selectivity Entries and Entry Summaries from the Automated Broker Interface, a component of ACS; Air Manifests (bills of lading) from AMS; Express Consignment Services (bills of

electronically with AES, export manifest data from AES, and export airway bills of lading to assist in formulating risk assessments for cargo bound for destinations outside the United States.

CBP uses commercial off-the-shelf (COTS) software tools to graphically present entity-related information that may indicate terrorist or criminal activity; to discover non-obvious relationships across cargo data; to retrieve information from ATS source systems to expose unknown or anomalous activity; and to conduct statistical modeling of cargo-related activities as another method to detect anomalous behavior. CBP also uses custom-designed software to resolve ambiguities in trade entity identification related to inbound and outbound cargo.

#### iv. Efficacy

Based on the results of testing and operations in the field, ATS-N and ATS-AT have proven to be effective means of identifying suspicious cargo that requires further investigation by CBP officers. The results of ATS-N and ATS-AT analyses identifying cargo as suspicious have been regularly corroborated by physical searches of the identified cargo.

In the past year, CBP officers working at the NTC-C have used ATS-N to identify, through risk-based rule sets, cargo shipments and commodities that were matches to criteria contained in the rule, which caused these shipments to be referred for further examination. CBP officers may apply additional scrutiny to such referrals, including opening the cargo container to remove and inspect its contents. During the exam, CBP officers may detain, seize, forfeit, or deny entry of merchandise that are contraband or otherwise not admissible. For example, on June 21, 2017, CBP seized 13.40 kilograms of methamphetamine based on an NTC-C referral. NTC-C identified a shipment from Mexico to the United States as high risk for narcotic smuggling and referred the shipment to the appropriate port of entry for examination.

Additionally, on March 28, 2017, a CBP port of entry discovered 20.20 kilograms of cocaine based upon a referral from NTC-C due to a match to a narcotics query.

#### v. Laws and Regulations

There are numerous customs and related authorities authorizing the collection of data regarding the import and export of cargo as well as the entry and exit of conveyances.<sup>54</sup> ATS-AT and ATS-N also support functions mandated by Title VII, Counter-terrorism and Drug Law Enforcement, of Public Law 104-208 (Omnibus Consolidated Appropriations Act, 1997), which provides funding for counterterrorism and drug law enforcement. ATS-AT also supports functions arising from the Anti-Terrorism Act of 1987<sup>55</sup> and the 1996 Clinger-Cohen Act.<sup>56</sup> The risk assessments for cargo are also mandated under Section 912 of the SAFE Port Act.<sup>57</sup>

### b) ATS-Passenger (ATS-P)

#### i. Program Description

ATS-P is a custom-designed system used at U.S. ports of entry, particularly those receiving

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lading); Manifests (bills of lading from Canada Customs and Revenue); CBP Automated Forms Entry Systems CBP Form 7512; QP Manifest Inbound (bills of lading) from AMS; Truck Manifests from ACE; Inbound Data (bills of lading) from AMS; entries subject to Food and Drug Administration Prior Notice requirements from ACS; and Census Import Data from the U.S. Department of Commerce.

<sup>54</sup> See, e.g., 19 U.S.C. §§ 482, 1431, 1433, 1461, 1496, 1499, 1581-1583; 22 U.S.C. § 401; and 46 U.S.C. § 46501.

<sup>55</sup> 22 U.S.C. §§ 5201 *et seq.*

<sup>56</sup> 40 U.S.C. §§ 1401 *et seq.*

<sup>57</sup> 6 U.S.C. § 912(b).

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international flights (both commercial and private) and voyages, and at the CBP NTC to evaluate passengers and crew members prior to their arrival to or departure from the United States. Unified Passenger (UPAX) is a technology refresh of ATS-P and was deployed as an update to the ATS-P functional interface in March 2013. ATS-P facilitates the CBP officer's decision-making process about whether a person should receive additional inspection prior to entry into, or departure from, the United States because that person may pose a greater risk for terrorism and related crimes or other crimes. ATS-P is a fully operational application that utilizes CBP's System Engineering Life Cycle methodology<sup>58</sup> and is subject to recurring systems maintenance.

## ii. Technology and Methodology

UPAX is an updated user interface that replaces the older functionality of the ATS-P interface to process traveler information, as well as visa, ESTA, EVUS, and GES information against other information available through ATS. It applies risk-based rules based on CBP officer expertise, analysis of trends of suspicious activity, and raw intelligence from DHS and other government agencies to assist CBP officers in identifying individuals who require additional inspection or in determining whether individuals should be allowed or denied entry into the United States. The updates to ATS that comprise UPAX involve a cleaner visual presentation of relevant information used in the vetting and inspection process. This presentation involves providing direct access to cross-referenced files and information from partner agency databases through the use of hypertext links and single sign-on protocols. The links and sign-on protocols employ the underlying sharing agreements that support the same information query capability within the former ATS-P to permit a more seamless integration, allowing relevant data to be consolidated or accessed from the primary screen used to vet the targeting results pertaining to the traveler or the applicant.

ATS-P continues to rely on the risk-based rules that are derived from discrete data elements, including criteria that pertain to specific operational or tactical objectives or local enforcement efforts. Unlike in the cargo environment, ATS-P does not use a score to determine an individual's risk level; instead, ATS-P compares information available through ATS against watch lists, criminal records, warrants, and patterns of suspicious activity identified through past investigations and intelligence. The results of these comparisons are either assessments of the risk-based rules that a traveler or applicant has matched or matches against watch lists, criminal records, or warrants. The rules are run against continuously updated incoming information about travelers or applicants (e.g., information in passenger and crew manifests) from the data sources listed below. While the rules are initially created based on information derived from past investigations and intelligence, data mining queries of data available through ATS and its source databases may subsequently be used by analysts to refine or further focus those rules to improve the effectiveness of their application.

The results of queries in ATS-P are designed to signal to CBP officers that further inspection of a person may be warranted, even though an individual may not have been previously associated with a law enforcement action or otherwise noted as a person of concern to law enforcement. The risk assessment analysis is generally performed in advance of a traveler's arrival in or departure from the United States and becomes another tool available to CBP officers in determining admissibility and in identifying illegal activity. In lieu of more extensive manual reviews of traveler information and intensive interviews with every traveler arriving in or departing from the United States, ATS-P

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<sup>58</sup> CBP's Office of Information & Technology's System Engineering Life Cycle (SELC) is a policy that lays out the documentation requirements for all CBP information technology projects, pilots, and prototypes. All projects and system changes must have disciplined engineering techniques, such as defined requirements, adequate documentation, quality assurance, and senior management approvals, before moving to the next stage of the life cycle. The SELC has seven stages: initiation and authorization, project definition, system design, construction, acceptance and readiness, operations, and retirement.

allows CBP personnel to focus their efforts on potentially high-risk passengers. CBP uses ATS-P for decision support and does not make decisions about individuals solely based on the automated results of the data mining of information available through ATS-P. Rather, the CBP officer uses the information in ATS-P to assist in determining whether an individual should undergo additional inspection.

### iii. Data Sources

ATS-P uses available information from the following databases to assist in the development of the risk-based rules discussed above: APIS; NIIS, which contains all Form I-94 Notice of Arrival/Departure records and actual arrivals/departures; ESTA, which contains pre-arrival information for persons seeking authorization to travel under the Visa Waiver Program (VWP);<sup>59</sup> GES, which contains trusted traveler application data; and the DoS visa databases. ATS-P also relies upon PNR information from air carriers, BCI crossing data, seizure data, Report of International Transportation of Currency or Monetary Instrument Report (CMIR) data,<sup>60</sup> and information from the TSDB and TECS.

### iv. Efficacy

ATS-P provides information to its users in near real-time. The flexibility of ATS-P's design and cross-referencing of databases permits CBP personnel to employ information collected through multiple systems within a secure information technology system in order to detect individuals requiring additional scrutiny. The automated nature of ATS-P greatly increases the efficiency and effectiveness of the officers' otherwise manual and labor-intensive work checking separate databases, thereby facilitating the more efficient movement of travelers while safeguarding the border and the security of the United States. CBP officers use the information generated by ATS-P to aid their decision-making about the risk associated with individuals. As discussed below, ATS includes real-time updates of information from source systems to ensure that CBP officers are acting upon accurate information.

In the past year, ATS-P has identified, through lookouts and/or risk-based rule sets, individuals who were confirmed matches to the TSDB and caused action to be taken to subject them to further inspection or, in some cases, made recommendations to carriers not to board such persons. ATS-P matches have also enabled CBP officers and foreign law enforcement partners with whom CBP may share information to disrupt and apprehend persons engaged in human trafficking and drug smuggling operations. For example, CBP officers working at the NTC using ATS-P identified an individual departing the United States, who was the subject of an NCIC active warrant for sexual assault. Based on the research conducted by the NTC, the traveler was referred for an outbound inspection and was ultimately detained and turned over to the local law enforcement officers. In addition, CBP officers working at the NTC using ATS-P identified an inbound international traveler as a high-risk for fraud. NTC coordinated with the airline prior to the traveler boarding a plane departing for the United States. Based on the information provided by NTC, airline security officers, in coordination with airport police, determined the traveler was in possession of a fraudulent passport. The traveler was denied boarding by the airline at the foreign airport. Airport police took custody of the traveler and seized the altered passport.

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<sup>59</sup> The Visa Waiver Program allows eligible foreign nationals from participating countries to travel to the United States for business or pleasure, for stays of 90 days or less, without obtaining a visa. The Program requirements primarily are set forth in Section 217 of the Immigration and Nationality Act (INA), 8 U.S.C. § 1187, and 8 C.F.R. Part 217. Section 711 of the 9/11 Commission Act amended Section 217 to strengthen the security of the VWP. ESTA is an outgrowth of that mandate. More information about ESTA is available at <http://www.cbp.gov/esta>.

<sup>60</sup> The CMIR is the U.S. Department of the Treasury Financial Crimes Enforcement Network (FinCEN) Form 105.

## v. Laws and Regulations

CBP is responsible for collecting and reviewing information from travelers entering and departing the United States.<sup>61</sup> As part of this inspection and examination process, each traveler seeking to enter the United States must first establish his or her identity, nationality, and when appropriate, admissibility to the satisfaction of the CBP officer and then submit to inspection for customs purposes. The information collected is authorized pursuant to the EBSVERA,<sup>62</sup> ATSA, IRTPA, the Immigration and Nationality Act (INA), and the Tariff Act of 1930, as amended.<sup>63</sup> Much of the information collected in advance of arrival or departure can be found on routine travel documents that passengers and crew members may be required to present to a CBP officer upon arrival in or departure from the United States.

### c) ATS-Land Module (ATS-L)

#### i. Program Description

ATS-L provides CBP Officers and Border Patrol Agents at the land border ports of entry and at Border Patrol locations between the ports of entry with access to real-time databases to assess the risk posed by vehicles and their occupants, as well as pedestrians, as they cross the border. The module employs data obtained from CBP license plate readers and traveler documents to compare information against state DMV databases and datasets available through ATS to assess risk and to determine if a vehicle or its passengers may warrant further scrutiny. This analysis permits the officer or agent to prepare for the arrival of the vehicle at initial inspection and to assist in determining which vehicles might warrant referral for further evaluation. ATS-L's real-time assessment capability improves security at the land border while expediting legitimate travelers through the border crossing process.

#### ii. Technology and Methodology

ATS-L processes vehicle, vehicle occupant, and pedestrian information against other data available to ATS, and applies rules developed by subject matter experts (officers and agents drawing upon years of experience reviewing historical trends and current threat assessments), analytical correlation rules (rules resulting from the system's weighing positive and negative results from subject matter expert rules), or affiliate rules (derived from data establishing an association with a known violator). Analytical correlation rules in ATS-L seek to identify high-risk vehicles or persons by examining historical trends in CBP narcotics seizure record data from the land ports of entry. These rules are driven by algorithms to identify obvious and non-obvious relationships among data inputs (i.e., reviewing historical seizure data and applying correlation analysis to incoming vehicle and traveler data). The analytical correlation rules are updated annually, at a minimum, through the use of a predictive model to help identify people and vehicles with an increased risk of transporting certain types of illegal drugs. The subject matter expert rules, which are designed by CBP personnel to create scenarios based on officer experience and law enforcement or intelligence information, are derived from discrete data elements, including criteria that pertain to specific operational or tactical objectives or local enforcement efforts. ATS-L also compares license plate and DMV data to information in ATS source databases including watch lists, criminal records, warrants, and a statistical analysis of past crossing activity. The results of these comparisons are either assessments recommending further official interest in a vehicle and its travelers or supporting information for

<sup>61</sup> See, e.g., 19 U.S.C. §§ 482, 1431, 1433, 1461, 1496, 1499, 1581-1583; 8 U.S.C. §§ 1221, 1357; 46 U.S.C. § 46501; and 49 U.S.C. § 44909.

<sup>62</sup> 8 U.S.C. § 1721.

<sup>63</sup> 19 U.S.C. §§ 66, 1433, 1454, 1485, and 1624.

the clearance and admission of the vehicle and its travelers.

The results of positive queries in ATS-L are designed to signal to CBP officers and agents that further inspection of a vehicle or its travelers may be warranted, even though a vehicle or individual may not have been previously associated with a law enforcement action or otherwise noted as a subject of concern to law enforcement. The risk assessment analysis at the border is intended to permit a recommendation prior to the person or vehicle's arrival at the point of initial inspection, and becomes one more tool available to CBP officers and agents in determining admissibility and in identifying illegal activity. In lieu of more extensive manual reviews of information and intensive interviews with each person arriving in the United States, ATS-L allows DHS personnel to focus their efforts on potentially high-risk vehicles and persons. DHS does not make decisions about individuals based solely on the automated information in ATS-L. Rather, the CBP officer and agent uses the information in ATS-L to assist in determining whether an individual should undergo additional inspection.

### iii. Data Sources

ATS-L uses and relies upon available information from the following systems to assist in the development of the risk-based rules discussed above: NIIS, ESTA, Suspect and Violator Indices (SAVI)<sup>64</sup>, and DoS visa. ATS-L also relies upon TECS data, seizure data, feeds from Nlets, NCIC, SEVIS, and information from the TSDB.

### iv. Efficacy

ATS-L provides information to its users in real time, permitting an officer to assess his or her response to the crossing vehicle or person prior to initiating the border crossing process. The automated nature of ATS-L is a significant benefit to officer safety by alerting officers of potential threats prior to a vehicle's arrival at the point of inspection. It also greatly increases the efficiency and effectiveness of the officer's otherwise manual and labor-intensive work checking individual databases, thereby facilitating the more efficient movement of vehicles, their occupants, and pedestrians, while safeguarding the border and the security of the United States. CBP officers and agents use the information generated by ATS-L to aid their decision-making about risk associated with vehicles, their occupants, and pedestrians. As discussed above, ATS includes real-time updates of information from ATS source systems to ensure that CBP Officers and agents are acting upon the most up to date information. For example, in October of 2017, CBP officers assigned to a U.S. land Port of Entry seized 22.62 kg of heroin, 20.32 kg of methamphetamine, and the vehicle transporting them, and arrested the driver. The vehicle was referred for further examination due to an ATS-L alert. In secondary, a non-intrusive inspection exam revealed anomalies. A CBP canine alerted, and a subsequent search revealed, narcotics concealed in the rear seat and spare tire. The ATS-L vehicle targeting capability directly facilitated this seizure, as checks on the driver raised no alerts. Without the ATS-L functionality, the driver might not have been sent to secondary inspection and as a result, the heroin and methamphetamine would not have been found.

In FY17, ATS-L targeting capabilities led to the seizure of over 900 kilos of methamphetamine, 190 kilos of cocaine, 58 kilos of heroin, 4,140 kilos of marijuana and 15 kilos of fentanyl.

### v. Laws and Regulations

CBP is responsible for collecting and reviewing information about vehicles and their occupants

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<sup>64</sup> ATS-P maintains a copy of information from various systems, including SAVI, to identify individuals requiring additional vetting or inspection prior to entering or exiting the country. The ATS PIA is available at: <http://www.dhs.gov/privacy-impact-assessments>.

prior to entering the United States.<sup>65</sup> As part of this inspection and examination process, all vehicles and persons seeking to enter the United States must first establish their identity, nationality, and, when appropriate, admissibility to the satisfaction of the CBP officer and must submit to inspection for customs purposes. Information collection in ATS-L is pursuant to the authorities for information collection in ATS-P (i.e., EBSVERA; ATSA; IRTPA; the INA; and the *Tariff Act of 1930*, as amended). Much of the information collected in advance of or at the time of arrival can be found on routine travel documents possessed by persons (which they may be required to present to a CBP officer upon arrival in the United States), on the vehicle's license plate, and in official records pertaining to the registry of the vehicle.

### 3. ATS Privacy Impacts and Privacy Protections

The DHS Privacy Office works closely with CBP to ensure that ATS satisfies the privacy compliance requirements for operation. As noted above, CBP completed an updated PIA for ATS on January 13, 2017,<sup>66</sup> and updated the SORN for ATS in May 2012. CBP, the DHS Privacy Office, the DHS Office for Civil Rights and Civil Liberties (CRCL), and the DHS Office of the General Counsel conduct joint quarterly reviews of the risk-based targeting rules used in ATS to ensure that the rules are appropriate, relevant, and effective and assess whether privacy and civil liberties protections are adequate and consistently implemented.

Authorized CBP officers and agents and personnel from ICE, Transportation Security Administration (TSA), United States Coast Guard (USCG), and USCIS who are located at seaports, airports, land border ports, and operational centers around the world use ATS to support targeting-, inspection-, and enforcement-related requirements.<sup>67</sup> ATS supports, but does not replace, the decision-making responsibility of CBP officers, agents, and analysts. Decisions made or actions taken regarding individuals are not based solely on the results of automated searches of data in the ATS system. Information obtained in such searches assists CBP officers and analysts in either refining their analysis or formulating queries to obtain additional information upon which to base decisions or actions regarding individuals crossing U.S. borders.

Additional ATS users include federal agencies with authority governing the safety of products imported into the United States, or with border management authorities, who have joined with DHS (through CBP, and in coordination with ICE) to form the Import Safety Commercial Targeting and Analysis Center (CTAC) in Washington, D.C. to promote the need to share information about the safety of those products. These agencies include: the U.S. Consumer Product Safety Commission, the Food Safety Inspection Service, the Animal Plant Health Inspection Service, the Pipeline and Hazardous Materials Safety Administration, the National Highway Traffic Safety Administration, Environmental Protection Agency, U.S. Food and Drug Administration, U.S. Fish and Wildlife Service, the National Marine Fisheries Service, and the Alcohol and Tobacco Tax and Trade Bureau. Each member of the CTAC provides representatives who are assigned to work at the CTAC to collaborate and cooperate on issues relating to cargo enforcement and import safety. ATS relies upon its source systems to ensure the accuracy and completeness of the data they provide to ATS. When a CBP officer identifies any discrepancy regarding the data, the officer will take action to correct that information, when appropriate. ATS monitors source systems for changes to the source

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<sup>65</sup> See, e.g., 19 U.S.C. §§ 482, 1431, 1433, 1461, 1496, 1499, 1581-1583; 8 U.S.C. §§ 1221, 1357; 22 U.S.C. § 401; 46 U.S.C. § 46501; and 49 U.S.C. § 44909.

<sup>66</sup> ATS PIA updates are available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>67</sup> TSA, ICE, USCIS, USCG and personnel from the DHS Office of Intelligence and Analysis (I&A) have access only to a limited version of ATS. I&A personnel use ATS results in support of their authorized intelligence activities in accordance with applicable law, Executive Orders, and policy.

system databases. Continuous source system updates occur in real time, or near-real time, from TECS, which includes data accessed from NCIC and Nlets, as well as from ACE, AMS, ACS, AES, ESTA, NIIS, BCI, SEVIS, and APIS. When corrections are made to data in source systems, ATS updates this information in near-real time and uses the latest data. In this way, ATS integrates all updated data (including accuracy updates) in as close to real time as possible.<sup>68</sup>

In the event that PII (such as certain data within a PNR) used by or maintained in ATS-P is believed by the data subject to be inaccurate, the subject has access to the redress process previously developed by DHS. The data subject is provided information about this process during examination at secondary inspection. In addition, CBP officers have a brochure available to each individual entering and departing the United States that provides CBP's Pledge to Travelers. This pledge gives each traveler an opportunity to speak with a passenger service representative to answer any questions about CBP procedures, requirements, policies, or complaints.<sup>69</sup> CBP has created the CBP INFO Center in its Office of Public Affairs to serve as a clearinghouse for all redress requests that come to CBP directly and concern inaccurate information collected or maintained by its electronic systems, including ATS. This process is available even though ATS does not form the sole basis for identifying enforcement targets. To facilitate the redress process, DHS has created a comprehensive, Department-wide program, the Traveler Redress Inquiry Program (DHS TRIP), to receive all traveler-related comments, complaints, and redress requests affecting its component agencies. Through DHS TRIP, travelers can seek resolution regarding difficulties they experienced during their travel screening and inspection.<sup>70</sup>

Under the ATS PIA and SORN, and as a matter of DHS policy,<sup>71</sup> CBP permits subjects of PNR or their representatives to make administrative requests for access and amendment of the PNR. Procedures for individuals to request access to PNR within ATS are outlined in the ATS SORN and PIA. These procedures mirror the procedures providing for access in the source systems for ingested data, so that individuals may request access to their own data from either ATS or the source systems that provide input to ATS in accordance with the procedures set out in the SORN for each source system. The *Freedom of Information Act* (FOIA), the *Privacy Act*, and the *Judicial Redress Act* (JRA) provide additional means of access to PII held in source systems.<sup>72</sup> FOIA, *Privacy Act*, and JRA requests for access to information for which ATS is the source system are directed to CBP.<sup>73</sup>

ATS underwent the Security Authorization process in accordance with DHS and CBP policy and obtained its initial Security Authorization on June 16, 2006. ATS also completed a Security Risk Assessment on January 26, 2017, in compliance with FISMA, OMB policy, and National Institute of Standards and Technology guidance. The ATS Security Authorization and Security Risk Assessment were subsequently updated and are valid until October 28, 2025.

Access to ATS is audited to ensure that only appropriate individuals have access to the system.

<sup>68</sup> To the extent information that is obtained from another government source is determined to be inaccurate, this problem would be communicated to the appropriate government source for remedial action.

<sup>69</sup> The Pledge is available at <http://www.cbp.gov/travel/customer-service/cbp-pledge-to-travelers>. In addition, travelers can visit CBP's INFO Center website at <http://www.cbp.gov/travel/customer-service> to request answers to questions and submit complaints electronically. This website also provides travelers with the address of the CBP INFO Center and the telephone number of the Joint Intake Center.

<sup>70</sup> DHS TRIP can be accessed at: <http://www.dhs.gov/dhs-trip>.

<sup>71</sup> [https://www.dhs.gov/sites/default/files/publications/PPGM%202017-01%20Signed\\_0.pdf](https://www.dhs.gov/sites/default/files/publications/PPGM%202017-01%20Signed_0.pdf).

<sup>72</sup> 5 U.S.C. § 552; 5 U.S.C. § 552a.

<sup>73</sup> Requests may be submitted by mail to CBP's FOIA Officer, 1300 Pennsylvania Avenue, NW, Room 3.3D, Washington, D.C. 20229 or electronically by visiting: <https://www.dhs.gov/freedom-information-act-foia>.

CBP's Office of Internal Affairs also conducts periodic reviews of ATS to ensure that the system is being accessed and used only in accordance with documented DHS and CBP policies. Access to the data used in ATS is restricted to persons with a clearance approved by CBP, approved access to the separate local area network, and an approved password. All CBP process owners and all system users are required to complete annual training in privacy awareness and must pass an examination. If an individual does not take training, that individual loses access to all approved computer systems, including ATS. As a condition precedent to obtaining access to ATS, all system users are required to meet all privacy and security training requirements necessary to obtain access to TECS.

As discussed above, ATS collects information directly from source systems and derives other information from various systems. To the extent information is collected from other systems, data is retained in accordance with the record retention requirements of those systems.

The retention period for data maintained in ATS will not exceed fifteen years, after which time it will be disposed of in accordance with ATS's National Archives and Records Administration (NARA)-approved record retention schedule, except as noted below.<sup>74</sup> The retention period for PNR, which is contained only in ATS-P, is subject to the following further access restrictions and masking requirements: ATS-P users with PNR access have access to PNR in an active status for up to five years, with the PNR depersonalized and masked after the first six months of this period. After the initial five-year retention period in the active status, the PNR is transferred to a dormant status for a period of up to ten years. PNR in dormant status is subject to additional controls including the requirement of obtaining access approval from an appropriate CBP supervisor. Furthermore, PNR in the dormant status may only be unmasked in connection with a law enforcement operation and only in response to an identifiable case, threat, or risk.<sup>75</sup>

Information maintained only in ATS that is linked to law enforcement lookout records, and CBP matches to enforcement activities, investigations, or cases (i.e., specific and credible threats; flights, individuals, and routes of concern; or other defined sets of circumstances) will remain accessible for the life of the law enforcement matter to support that activity and other enforcement activities that may become related.

## B. Analytical Framework for Intelligence (AFI)

### 1. 2017 Program Update

AFI became the user interface for access to select datasets that formerly resided in ICE's Intelligence Fusion System (IFS) as discussed below in section III.B.4.

On September 1, 2016, the AFI Privacy Impact Assessment was updated to include legacy IFS datasets that formerly resided in ICE's IFS, and to permit access to AFI by additional DHS components including USCIS, USCG, TSA, and DHS Office of Intelligence and Analysis (I&A).<sup>76</sup>

### 2. Program Description

CBP's AFI system provides enhanced search and analytical capabilities to identify and apprehend individuals who pose a potential law enforcement or security risk, and aids in the enforcement and

<sup>74</sup> NARA approved the record retention schedule for ATS on April 12, 2008.

<sup>75</sup> These masking requirements have been implemented pursuant to the 2011 U.S.-European Union PNR Agreement entered into force on June 1, 2012. The Agreement is available on the Privacy Office website at [http://www.dhs.gov/sites/default/files/publications/privacy/Reports/dhsprivacy\\_PNR%20Agreement\\_12\\_14\\_2011.pdf](http://www.dhs.gov/sites/default/files/publications/privacy/Reports/dhsprivacy_PNR%20Agreement_12_14_2011.pdf).

<sup>76</sup> The PIA for AFI is available at: <http://www.dhs.gov/privacy-impact-assessments>.

prosecution of customs and immigration laws, and other laws enforced by CBP at the border. AFI is used for the purposes of: (1) identifying individuals, associations, or relationships that may pose a potential law enforcement or security risk, targeting cargo that may present a threat, and assisting intelligence product users in the field in preventing the illegal entry of people and goods, or identifying other violations of law; (2) conducting additional research on persons or cargo to understand whether there are patterns or trends that could assist in the identification of potential law enforcement or security risks; and (3) sharing finished intelligence products<sup>77</sup> developed in connection with the above purposes with DHS employees who have a need to know in the performance of their official duties and who have appropriate clearances or permissions, or externally pursuant to routine uses in the AFI SORN.

AFI augments CBP's ability to gather and develop information about persons, events, and cargo of interest by creating an index of the relevant data in the existing operational systems and providing AFI analysts with different tools that assist in identifying non-obvious relationships. AFI allows analysts to generate finished intelligence products to better inform finished intelligence product users about why an individual or cargo may be of greater security interest based on the targeting and derogatory information identified in or through CBP's existing data systems. CBP currently uses transaction-based systems such as TECS and ATS for targeting and inspections. AFI enhances the information from those systems by employing different analytical capabilities and tools that provide link analysis among data elements.

AFI improves the efficiency and effectiveness of CBP's research and analysis process by providing a platform for the research, collaboration, approval, and publication of finished intelligence products. AFI analysts use AFI to conduct research on individuals, cargo, or conveyances to assist in identifying potential law enforcement or security risks.

AFI provides a set of analytical tools that includes advanced search capabilities into existing DHS data sources, and federated queries to other federal agency sources and commercial data aggregators, to allow analysts to search several databases simultaneously. AFI tools present the results to the AFI analyst in a manner that allows for easy visualization and analysis.

AFI creates an index of the relevant data in existing operational DHS source systems by ingesting this data from source data systems, as described below, in order to enable a faster return of search results. AFI also permits AFI analysts to upload, index, and store information that may be relevant from other sources, such as the Internet or traditional news media, subject to the procedures described below. Finished intelligence products and unfinished "projects"<sup>78</sup> are also part of the index. The indexing engines refresh data from the originating system periodically depending on the source data system. AFI adheres to the records retention policies of the source data systems along with their user access controls.

The AFI index permits AFI analysts to perform faster and more thorough searches because the indexed data allows for a search across all identifiable information in a record, including free-form text fields and other data that might not be searchable through the source system. Within AFI, this is a quick search that shows where a particular individual or characteristic arises. With other systems, a similar search for a particular individual requires several queries across multiple systems to retrieve a corresponding response and may not contain all relevant instances of the

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<sup>77</sup> "Finished Intelligence Products" are intelligence reports or products developed through detailed analytic research from the collection, processing, integration, analysis, evaluation, and interpretation of available information, typically regarding long-term intelligence priorities.

<sup>78</sup> AFI analysts create "projects" within the AFI workspace to capture research and analysis that is in progress and may or may not lead to a finished intelligence product or Request for Information (RFI) response.

search terms.

AFI also enables analysts to perform federated queries against external data sources, including certain data sets belonging to the DoS, DOJ/FBI, and commercial data aggregators that are already available to DHS users. AFI tracks where AFI analysts search and routinely audits these records. AFI analysts use data that is available from commercial data aggregators to complement or clarify the data to which they have access within DHS. AFI provides a suite of tools that assist analysts in detecting trends, patterns, and emerging threats, and in identifying non-obvious relationships, using the information maintained in the index and made accessible through the federated query.

AFI also serves as a workspace that allows AFI analysts to create finished intelligence products, to maintain and track projects throughout their lifecycle from inception to finished intelligence product, and to share finished intelligence products either within DHS based on a need to know or externally through regular law enforcement and intelligence channels to authorized users pursuant to routine uses described in the AFI SORN.<sup>79</sup>

### 3. Technology and Methodology

AFI creates and retains an index of searchable data elements in existing operational DHS source systems by ingesting this data through and from source systems. The index indicates which source system records match the search term used. AFI maintains the index of the key data elements that are personally identifiable in source data systems. The indexing engines regularly refresh data from the source system. Any changes to source system records, or the addition or deletion of source system records, will be reflected in corresponding amendments to the AFI index as the index is routinely updated.

AFI includes a suite of tools designed to give AFI analysts visualization, collaboration, analysis, summarization, and reporting capabilities. These include text analysis, link analysis, and geospatial analysis.

Specific types of analysis include:

- *Geospatial analysis*: Geospatial analysis utilizes visualization tools to display a set of events or activities on a map showing streets, buildings, geopolitical borders, or terrain. This analysis can help produce intelligence about the location or type of location that is favorable for a particular activity.
- *Link analysis*: Link analysis provides visualization tools that can help analysts discover patterns of associations among various entities.
- *Temporal analysis*: Temporal analysis offers visualization tools that can display events or activities in a timeline to help the analyst identify patterns or associations in the data. This analysis can produce a time sequence of events.

The results of these analyses are used to generate finished intelligence products and projects. The finished intelligence products are published in AFI for finished intelligence product users to search. In all situations, research developed or reports created by AFI analysts are subject to supervisory review.

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<sup>79</sup> The AFI SORN is available at: <http://www.gpo.gov/fdsys/pkg/FR-2012-06-07/html/2012-13813.htm>. A detailed description of the processes leading to finished intelligence products and RFI responses is included in the PIA for AFI available at: <http://www.dhs.gov/privacy-impact-assessments>.

## 4. Data Sources

The AFI system does not itself collect information directly from individuals. Rather, AFI performs searches for and accesses information collected and maintained in other systems, including information from both government-owned sources and commercial data aggregators. If, however, a particular data source is not available due to technical issues, the AFI analyst will be unable to retrieve the responsive record in its entirety. Additionally, AFI analysts may upload information that they determine is relevant to a project, including information publicly available on the Internet.

AFI uses, disseminates, or maintains seven categories of data containing PII:

- *DHS-Owned Data that AFI automatically collects and stores:* This selected data is indexed and, as information is retrieved via a search, data from multiple sources may be joined to create a more complete representation of an event or concept. For example, a complex event such as a seizure that is represented by multiple records may be composed into a single object for display. AFI receives records through:
  - ATS (including: APIS; ESTA; TECS Incident Report Logs and Search, Arrest, Seizure Reports, Primary Name Query, Primary Vehicle Query, Secondary Referrals, TECS Intel Documents; and visa data);
  - Select legacy IFS datasets (including the following information: EID detention data, <sup>80</sup>ICE intelligence information reports, ICE intelligence products, ICE name trace, ICE significant event notification Detention and Removal Leads, and TECS Reports of Investigation).<sup>81</sup>
  - Enterprise Management Information System-Enterprise Data Warehouse (including: Arrival and Departure Form I-94<sup>82</sup>; CMIR data; <sup>83</sup> apprehension, inadmissibility, and seizure information from the ICE Criminal Arrest Records and Immigration Enforcement Records (CARIER);<sup>84</sup> National Security Entry-Exit Program information from CARIER; SEVIS information;<sup>85</sup> and seizure information from the Seized Asset and Case Tracking System<sup>86</sup>); and
  - The ATS-Targeting Framework (case information).
- *DHS-Owned Data to which AFI provides federated access:* This data is a limited set of data owned, stored, and indexed by other DHS components. Through AFI, only a user with an active account in that other DHS system can query and receive results from that system. AFI will store only results that are returned as a function of AFI's audit capabilities.

<sup>80</sup> For a detailed description of the EID system, please see DHS/ICE/PIA-015 Enforcement Integrated Database (EID) (April 8, 2014), available at: <https://www.dhs.gov/publication/dhsicepia-015h-enforcement-integrated-database-eid-criminal-history-information-sharing>.

<sup>81</sup> ICE and the Privacy Office issued a PIA for IFS on November 17, 2008. The IFS PIA is available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>82</sup> The PIA for DHS/CBP/PIA-024, Arrival and Departure Information System (ADIS) is available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>83</sup> The CMIR is the U.S. Department of the Treasury Financial Crimes Enforcement Network (FinCEN) Form 105.

<sup>84</sup> The SORN for CARIER is available at: [https://www.regulations.gov/document?D=DHS\\_FRDOC\\_0001-1513](https://www.regulations.gov/document?D=DHS_FRDOC_0001-1513).

<sup>85</sup> The PIA for SEVIS is available at: <http://www.dhs.gov/privacy-impact-assessments> and the SORN for SEVIS is available at: <http://www.gpo.gov/fdsys/pkg/FR-2010-01-05/html/E9-31268.htm>.

<sup>86</sup> The SORN for the Seized Assets and Case Tracking System is available at: <https://www.gpo.gov/fdsys/pkg/FR-2008-12-19/html/E8-29802.htm>.

- *Other Government Agency Data:* AFI obtains imagery data from the National Geospatial-Intelligence Agency and obtains other government agency data to the extent available through ATS, such as identity and biographical information, wants and warrants, DMV data, and data from the TSDB.<sup>87</sup>
- *Commercial Data:* AFI collects identity and imagery data from several commercial data aggregators so that DHS AFI analysts can cross-reference that information with the information contained in DHS-owned systems. Commercial data aggregators include sources available by subscription only (e.g., Lexis-Nexis) that connect directly to AFI, and do not include information publicly available on the Internet.
- *AFI Analyst-Provided Information:* This includes any information uploaded by an authorized user either as original content or from an ad hoc data source such as the Internet or traditional news media. AFI analyst-provided information may include textual data (such as official reports users have seen as part of their duties or segments of a news article), video and audio clips, pictures, or any other information the user determines is relevant. User-submitted RFIs and projects are also stored within AFI, as well as the responses to those requests.
- *AFI Analyst-Created Information:* AFI maintains user-created projects as well as finished intelligence products. Finished intelligence products are made available through AFI to finished intelligence users.
- *Index Information:* As noted above, AFI ingests subsets of data from CBP and DHS systems to create an index of searchable data elements. The index indicates which source system records match the search term used.

The data elements that may be maintained in these seven categories include: full name, date of birth, gender, travel information, passport information, country of birth, physical characteristics, familial and other contact information, importation/exportation information, and enforcement records.

## 5. Efficacy

AFI became operational in August 2012, and CBP has sought to deploy AFI to field and headquarters locations to assign officers, agents, and employees user roles and to provide training commensurate with those roles. Ongoing operational use of AFI continues to assist with improved information sharing amongst participating DHS components. CBP personnel were able to use AFI's search capabilities to identify connections between previously uncorrelated human smuggling events. This allowed CBP to associate individuals to multiple smuggling events and deliver greater insight into the criminal organization behind the activities. CBP officers were able to use AFI's batch search capabilities to search for several hundred entities (individuals and locations) across multiple CBP data sources much faster than they could without AFI. This provided the officers more time to review the responsive records and take appropriate action.

## 6. Laws and Regulations

Numerous authorities mandate that DHS and CBP provide border security and safeguard the homeland, including: Title II of the *Homeland Security Act* (Pub. L. 107-296), as amended by

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<sup>87</sup> A more complete discussion of other government agency data that may be accessed through ATS can be found in the ATS PIA available at: <http://www.dhs.gov/privacy-impact-assessments>.

IRTPA; the *Tariff Act of 1930*, as amended; the INA (8 U.S.C. §§ 1101 et seq.); the *Implementing Recommendations of the 9/11 Commission Act of 2007* (Pub. L. 110-53); the *Antiterrorism and Effective Death Penalty Act of 1996* (Pub. L. 104-132); the SAFE Port Act; ATSA; 6 U.S.C. § 202 and 6 U.S.C. § 211.

## 7. Privacy Impact and Privacy Protections

CBP does not use the information in AFI to make unevaluated automated decisions about individuals. Given the breadth of the data available to AFI users, CBP has built extensive privacy protections into the structure and governance of AFI.<sup>88</sup> AFI itself does not collect information directly from individuals. AFI source systems are responsible, as appropriate, for providing individuals the opportunity to decline to provide information or to consent to or opt-out of use information. AFI provides the public notice about its use of information through its PIA and SORN.<sup>89</sup>

AFI continues to be designed and developed in an iterative, incremental fashion. CBP has created a governance board to ensure that AFI is built and used in a manner consistent with the Department's authorities, and that information in AFI is used consistent with the purpose for which it was originally collected. The governance board includes representatives from CBP's Offices of Intelligence, Field Operations, Border Patrol, Air & Marine, Chief Counsel, Internal Affairs, Information Technology, and Privacy and Diversity, who review requested changes to the system on a quarterly basis and determine whether additional input is required. The governance board directs the development of new aspects of AFI, and reviews and approves new or changed uses of AFI, new or updated user types, and new or expanded data to be made available in or through AFI. As an added layer of oversight, the DHS Privacy Office conducted and published Privacy Compliance Reviews (PCRs) for AFI on December 19, 2014<sup>90</sup> and December 6, 2016.<sup>91</sup>

Although AFI indexes information from many different source data systems, each source system maintains control of the data that it originally collected, even though the data is also maintained in AFI. Accordingly, only DHS AFI analysts authorized to access the data in a particular source system have access to that same data through AFI.<sup>92</sup> This is accomplished by passing individual user credentials from the originating system or through a previously approved certification process in another system. Finished intelligence product users and DHS AFI analysts have access to finished intelligence products, but only DHS AFI analysts have access to the source data, projects, and analytical tools maintained in AFI. In order to access AFI, all AFI users are required to complete annual training in privacy awareness and the privacy training required of all CBP employees with access to CBP's law enforcement systems. This training is regularly updated. Users who do not complete this training lose access privileges to all CBP computer systems, including AFI.

As AFI does not collect information directly from the public or any other primary source, it depends

<sup>88</sup> The PIA for AFI includes a more complete description of these protections and is available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>89</sup> The PIA for AFI is available at: <http://www.dhs.gov/privacy-impact-assessments>. The AFI SORN is available at: <http://www.gpo.gov/fdsys/pkg/FR-2012-06-07/html/2012-13813.htm>.

<sup>90</sup> The 2014 AFI PCR is available at: <http://www.dhs.gov/sites/default/files/publications/dhs-privacy-pcr-afi-12-19-2014.pdf>.

<sup>91</sup> The 2016 AFI PCR is available at: <https://www.dhs.gov/sites/default/files/publications/AFI%20PCR%20final%2012062016.pdf>.

<sup>92</sup> Only authorized CBP personnel and analysts who require access to the functionality and data in AFI as a part of the performance of their official duties and who have appropriate clearances or permissions will have access to AFI.

on the system(s) performing the original collection to ensure data accuracy. DHS AFI analysts will use a variety of data sources available through the source systems to verify and correlate the available information to the greatest extent possible. The accuracy of DHS-owned data, other federal agency data, and data provided by commercial data aggregators is dependent on the original source. DHS AFI analysts are required to make changes to the data records in the underlying DHS system of record if they identify inaccurate data and alert the source agency of the inaccuracy; AFI will then reflect the corrected information. Additionally, as the source systems for other federal agency data or commercial data aggregators correct information, queries of those systems will reflect the corrected information.

In order to further mitigate the risk of AFI's retaining incorrect, inaccurate, or untimely information, AFI routinely updates its index to ensure that only the most current data are available to its users. Any changes to source system records, or the addition or deletion of a source system record, is reflected in the corresponding amendments to the AFI index when the index is updated.

AFI has built-in system controls that identify what particular users are able to view, query, or write, as well as audit functions that are routinely reviewed. AFI uses security and auditing tools to ensure that information is used in accordance with CBP policies and procedures. The security and auditing tools include: role-based access control, which determines a user's authorization to use different functions, capabilities, and classifications of data within AFI, and discretionary access control, which determines a user's authorization to access individual groupings of user-provided data. Data is labeled and restricted based on data handling designations for Sensitive But Unclassified (SBU) data (e.g., For Official Use Only (FOUO), Law Enforcement Sensitive (LES)), and based on need-to-know.

AFI has been developed to meet Intelligence Community standards to prevent unauthorized access to data, ensuring that isolation between users and data is maintained based on need-to-know. Application logging and auditing tools monitor data access and usage, as required by the information assurance policies against which AFI was designed, developed, and tested (including DHS Directive 4300 A/B). AFI completed its most recent Security Authorization on September 9, 2016, and was granted a three-year authority to operate (ATO) from the DHS Office of the Chief Information Security Officer. The government systems accessed or used by AFI have undergone Security Authorizations and are covered by their respective ATOs.

Because AFI contains sensitive information related to intelligence, counterterrorism, homeland security, and law enforcement programs, activities, and investigations, DHS has exempted AFI from the access and amendment provisions of the *Privacy Act*, pursuant to 5 U.S.C. § 552a (j)(2) and (k)(2). For index data and source data, as described in the SORN for AFI, to the extent that a record is exempted in a source system, the exemptions will continue to apply. When there is no exemption for giving access to a record in a source system, CBP will provide access to that information maintained in AFI.<sup>93</sup>

AFI adheres to the records retention policies of its source data systems. AFI is in the process of

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<sup>93</sup> Notwithstanding the applicable exemptions, CBP reviews all Privacy Act access requests to records in AFI on a case-by-case basis. When such a request is made, and if it is determined that access would not appear to interfere with or adversely affect the national or homeland security of the United States or activities related to any investigatory material contained within this system, the applicable exemption may be waived at the discretion of CBP, and in accordance with procedures published in the applicable SORN. Requests may be submitted to U.S. Customs and Border Protection, FOIA Officer, 1300 Pennsylvania Avenue, NW, Room 3.3D, Washington, D.C. 20229. Additional information on submitting FOIA and Privacy Act requests is included in the PIA available at: <http://www.dhs.gov/privacy-impact-assessments>.

completing NARA requirements for data retention to obtain a records schedule for records contained in AFI. AFI is proposing that projects be retained for up to 30 years, and finished intelligence products for 20 years. These retention periods would be commensurate with those in place for similar records in DHS.

## C. FALCON Data Analysis and Research for Trade Transparency System (FALCON-DARTTS)

### 1. 2017 Program Update

During the reporting period, ICE made no modifications or updates to FALCON-DARTTS, which resides in the ICE Homeland Security Investigations (HSI) FALCON environment. The FALCON environment is designed to permit ICE personnel to search and analyze data ingested from other government applications and systems, with appropriate user access restrictions and robust user auditing controls.<sup>94</sup>

ICE published the FALCON-DARTTS PIA on January 16, 2014<sup>95</sup> and updated and published the FALCON Search & Analysis (FALCON-SA) Appendix to reflect that specific datasets and analytical results from FALCON-DARTTS are ingested into FALCON-SA.<sup>96</sup> On December 1, 2014, ICE republished the Trade Transparency Analysis and Research (TTAR) SORN, which applies to FALCON-DARTTS.<sup>97</sup>

Additional information about FALCON-DARTTS is included in an annex to this report that contains LES information and is provided separately to Congress.

### 2. Program Description

ICE maintains FALCON-DARTTS, which generates leads for and otherwise supports ICE HSI investigations of trade-based money laundering, contraband smuggling, trade fraud, and other import-export crimes. FALCON-DARTTS analyzes trade and financial data to identify statistically anomalous transactions. These anomalies are then independently confirmed and, if warranted, further investigated by HSI investigators.

FALCON-DARTTS is owned and operated by the HSI Trade Transparency Unit (TTU). Trade transparency is the examination of U.S. and foreign trade data to identify anomalies in patterns of trade. Such anomalies may indicate trade-based money laundering or other import-export crimes

<sup>94</sup> In February 2012, ICE deployed the first module of FALCON with the launch of FALCON Search & Analysis (FALCON-SA). FALCON-SA provides the capability to search, analyze, and visualize volumes of existing information in support of ICE's mission to enforce and investigate violations of U.S. criminal, civil, and administrative laws. For more information on the FALCON environment, see DHS/ICE/PIA-032A FALCON Search & Analysis System (FALCON-SA), January 16, 2014, [http://www.dhs.gov/sites/default/files/publications/privacy\\_pia\\_ice\\_falconsa\\_january2014.pdf](http://www.dhs.gov/sites/default/files/publications/privacy_pia_ice_falconsa_january2014.pdf).

<sup>95</sup> See DHS/ICE/PIA-038 FALCON-DARTTS, January 16, 2014, [http://www.dhs.gov/sites/default/files/publications/privacy\\_pia\\_ice\\_falcondartts\\_january2014\\_0.pdf](http://www.dhs.gov/sites/default/files/publications/privacy_pia_ice_falcondartts_january2014_0.pdf).

<sup>96</sup> See DHS/ICE/PIA-032a FALCON-SA, January 16, 2014, [http://www.dhs.gov/sites/default/files/publications/privacy\\_pia\\_ice\\_falconsa\\_january2014.pdf](http://www.dhs.gov/sites/default/files/publications/privacy_pia_ice_falconsa_january2014.pdf).

<sup>97</sup> See DHS/ICE-005, Trade Transparency Analysis and Research (TTAR), 79 Fed. Reg. 71112 (Dec. 1, 2014), <http://www.gpo.gov/fdsys/pkg/FR-2014-12-01/html/2014-28168.htm>. Datasets analyzed by FALCON-DARTTS not listed in the TTAR SORN at the time the system became operational in January 2014 were restricted from use in the system until the effective date of the updated SORN published in the *Federal Register*.

that HSI is responsible for investigating, such as smuggling, trafficking counterfeit merchandise, the fraudulent misclassification of merchandise, and the over- or under-valuation of merchandise to conceal the source of illicitly derived proceeds or as the means to earn illicitly derived funds supporting ongoing criminal activity. Pursuant to their mission, HSI investigators and analysts must understand the relationships among importers, exporters, and the financing for a set of trade transactions, to determine which transactions are suspicious and warrant investigation. FALCON-DARTTS is designed specifically to make this investigative process more efficient by automating the analysis and identification of anomalies for the investigator.

FALCON-DARTTS allows HSI to perform research and analysis that are not possible in any other ICE system because of the breadth of data it accesses and the number and type of variables through which it can sort.<sup>98</sup> FALCON-DARTTS does not seek to predict future behavior or “profile” individuals or entities (i.e., identify individuals or entities that meet a certain pattern of behavior pre-determined to be suspect). Instead, it identifies trade and financial transactions that are statistically anomalous based on user-specified queries. Investigators further examine the anomalous transactions to determine if they are, in fact, suspicious and warrant further investigation. HSI special agents gather additional facts, verify the accuracy of the FALCON-DARTTS data, and use their judgment and experience in deciding whether to investigate further. Not all anomalies lead to formal investigations.

FALCON-DARTTS is used by HSI special agents and intelligence research specialists who work on TTU investigations at ICE Headquarters and in the ICE HSI field and foreign attaché offices, as well as properly cleared support personnel. In addition, select CBP personnel and foreign government partners have limited access to FALCON-DARTTS. CBP customs officers and import specialists who conduct trade transparency analyses in furtherance of CBP’s mission use the trade and law enforcement datasets within FALCON-DARTTS to identify anomalous transactions that may indicate violations of U.S. trade laws. Foreign government partners that have established TTUs and have entered into a Customs Mutual Assistance Agreement (CMAA) or other similar information sharing agreement with the United States may also use specific trade datasets to investigate trade transactions, conduct analysis, and generate reports in FALCON-DARTTS.

FALCON-DARTTS uses trade data, financial data, and law enforcement data provided by other U.S. government agencies and foreign governments (hereafter referred to collectively as “raw data”). U.S. trade data includes the following PII: names and addresses (home or business) of importers, exporters, brokers, and consignees; Importer and Exporter IDs (e.g., an individual’s or entity’s Social Security or Tax Identification Number); Broker IDs; and Manufacturer IDs. Financial data includes the following PII: names of individuals engaging in financial transactions that are required to be reported pursuant to the Bank Secrecy Act (BSA), 31 U.S.C. §§ 5311-5332, (e.g., cash transactions over \$10,000); addresses; Social Security/Taxpayer Identification Numbers; passport number and country of issuance; bank account numbers; party names and addresses; and owner names and addresses. Financial data consists of financial transaction reports filed pursuant to the Bank Secrecy Act (BSA) provided by the U.S. Department of the Treasury’s Financial Crimes Enforcement Network (FinCEN) and other financial data provided to HSI by federal, state, and local law enforcement agencies. Law enforcement data consists of the publicly available Specially Designated Nationals (SDN) List compiled and maintained by the U.S. Department of the Treasury’s Office of Foreign Assets Control (OFAC), as well as subject records from U.S. Customs and Border Protection’s (CBP) TECS.

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<sup>98</sup> For example, FALCON-DARTTS allows investigators to view totals for merchandise imports and then sort on any number of variables, such as country of origin, importer name, manufacturer name, or the total value.

All ICE HSI, CBP, and foreign users of FALCON-DARTTS are able to access only data that is associated with the user's specific profile and which that user has the legal authority to access. Specifically, only ICE HSI and CBP users are granted access to the law enforcement data, and only ICE HSI users are granted access to the financial data maintained in FALCON's general data storage environment.<sup>99</sup> In this environment, the data is aggregated with other FALCON data, and user access is controlled through a combination of data tagging, access control lists, and other technologies.

Foreign users of FALCON-DARTTS are authorized to access only trade data, and are not authorized to access the law enforcement, financial data, or any *ad hoc* data that may reside in the FALCON general data storage environment. The trade data is stored in a "trade data subsystem" that is physically and logically separate from the FALCON general data storage environment and contains different user access requirements than the overarching data storage environment. Trade data is segregated in a separate storage environment due to its high volume and to enhance security controls for foreign users who only access trade data. Access by FALCON-DARTTS users to the trade data stored in this subsystem occurs through one of two web applications: (1) ICE HSI and CBP users are granted access to all U.S. and foreign trade data via an internal DHS FALCON-DARTTS web application that resides within the DHS/ICE network, and (2) foreign users are granted access to select trade datasets via a different web application that resides within a protected infrastructure space between the DHS Internet perimeter and the DHS/ICE network. Foreign users are able to access only the trade data about individuals or institutions with status in their country and the related U.S. trade transactions unless access to other partner countries' data is authorized via information sharing agreements with DHS.

### 3. Technology and Methodology

FALCON-DARTTS uses COTS software to assist its users in identifying suspicious trade transactions by analyzing trade and financial data and identifying data that is statistically anomalous. In response to user-specified queries, the software application is designed to analyze structured and unstructured data using three tools: the drill-down technique,<sup>100</sup> link analysis, and charting and graphing tools that use proprietary statistical algorithms.<sup>101</sup> It also allows non-technical users with investigative experience to analyze large quantities of data and rapidly identify problem areas. Through its sorting capability, the program facilitates application of specific knowledge and expertise to complex sets of data.

FALCON-DARTTS performs three main types of analysis. It conducts international trade discrepancy analysis by comparing U.S. and foreign import and export data to identify anomalies and discrepancies that warrant further investigation for potential fraud or other illegal activities. It performs unit price analysis by analyzing trade pricing data to identify over- or under-pricing of merchandise, which may be an indicator of trade-based money laundering. FALCON-DARTTS also performs financial data analysis by analyzing financial reporting data (the import and export of

<sup>99</sup> The FALCON general data storage environment consists of data ingested on a routine or *ad hoc* basis from other existing sources. The data stored in the general data storage environment is structured and optimized for use with the analytical tools in FALCON-SA and the other FALCON modules.

<sup>100</sup> The drill-down system allows HSI investigators to quickly find, analyze, share, and document suspicious patterns in large amounts of data, and to continually observe and analyze patterns in data at any point. HSI investigators can also connect one dataset within FALCON-DARTTS to another, to see whether the suspicious individuals, entities, or patterns occur elsewhere.

<sup>101</sup> FALCON-DARTTS provides HSI investigators the means to represent data graphically in graphs, charts, or tables to aid in the visual identification of anomalous transactions. FALCON-DARTTS does not create new records to be stored in FALCON-DARTTS.

currency, deposits of currency in financial institutions, reports of suspicious financial activities, and the identities of parties to these transactions) to identify patterns of activity that may indicate money laundering schemes.

FALCON-DARTTS can also identify links between individuals and/or entities based on commonalities, such as identification numbers or addresses. These commonalities in and of themselves are not suspicious, but in the context of additional information, they can assist investigators in identifying potentially criminal activity and lead to identification of witnesses, other suspects, or additional suspicious transactions.

FALCON-DARTTS receives data from the sources discussed below via CD-ROM, external storage devices, or electronic data transfers. The agencies that provide FALCON-DARTTS with trade data collect any PII directly from individuals or enterprises completing import-export electronic or paper forms.<sup>102</sup> Agencies that provide FALCON-DARTTS with financial data receive PII from individuals and institutions, such as banks, which are required to complete certain financial reporting forms.<sup>103</sup> PII in the raw data is necessary to link related transactions together. It is also necessary to identify persons or entities that should be investigated further.

HSI investigators with experience conducting financial, money laundering, and trade fraud investigations use completed FALCON-DARTTS analyses to identify possible criminal activity and provide support to field investigations. Depending on their specific areas of responsibility, HSI investigators may use the analyses for one or more purposes. HSI investigators at ICE Headquarters refer the results of FALCON-DARTTS analyses to HSI field offices as part of an investigative referral package to initiate or support a criminal investigation. HSI investigators in domestic field offices can also independently generate leads and subsequent investigations using FALCON-DARTTS analyses. HSI investigators in HSI attaché offices at U.S. Embassies abroad use the analyses to respond to inquiries from foreign partner TTUs. If a foreign TTU identifies suspicious U.S. trade transactions of interest, HSI investigators will validate that the transactions are, in fact, suspicious, and ICE will coordinate joint investigations on those specific trade records. ICE may also open its own investigation into the matter.

To enhance their FALCON-DARTTS analysis of trade data, HSI investigators may, on an *ad hoc* basis, import into and publish their analytical results in FALCON-SA for additional analysis and investigation using the tools and additional data available in FALCON-SA. Trade results that are imported into FALCON-SA are tagged as “FALCON-DARTTS trade data” and are published in FALCON-SA, so they are accessible by all other FALCON-SA users who are also granted FALCON-DARTTS privileges. Only trade results, not searchable bulk trade data, are ingested into and available in FALCON-SA.

Similarly, HSI investigators may access U.S. and foreign financial data from FALCON-DARTTS in FALCON-SA to conduct additional analysis and investigation using the tools and additional data available in FALCON-SA. These datasets are routinely ingested into FALCON-SA, and only FALCON-SA users who are also granted FALCON-DARTTS privileges will be authorized to access the financial data via the FALCON-SA interface.

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<sup>102</sup> U.S. trade data includes the following PII: names and addresses (home or business) of importers, exporters, brokers, and consignees; Importer and Exporter IDs (e.g., an individual’s or entity’s Social Security or Tax Identification Number); Broker IDs; and Manufacturer IDs.

<sup>103</sup> Financial data includes the following PII: names of individuals engaging in financial transactions that are reportable under the Bank Secrecy Act (BSA), 31 U.S.C. §§ 5311-5332, (e.g., cash transactions over \$10,000); addresses; Social Security/Taxpayer Identification Numbers; passport number and country of issuance; bank account numbers; party names and addresses; and owner names and addresses.

## 4. Data Sources

All raw data analyzed by FALCON-DARTTS is provided by other U.S. agencies and foreign governments, and is divided into the following broad categories: U.S. trade data, foreign trade data, financial data, and law enforcement data. U.S. trade data is (1) import data in the form of an extract from ACS, which CBP collects from individuals and entities importing merchandise into the United States who complete CBP Form 7501 (Entry Summary) or provide electronic manifest information via ACS; (2) EEI submitted to AES; and (3) bill of lading data collected by CBP via the AMS and provided to ICE through electronic data transfers for upload into FALCON-DARTTS.

Foreign import and export data in FALCON-DARTTS is provided to ICE by partner countries pursuant to a CMAA or other similar agreement. Certain countries provide trade data that has been stripped of PII. Other countries provide complete trade data, which includes any individuals' names and other identifying information that may be contained in the trade records.

ICE may receive U.S. financial data from FinCEN or federal, state, and local law enforcement agencies. Bank Secrecy Act (BSA) data is in the form of the following financial transaction reports: CMIRs (transportation of more than \$10,000 into or out of the United States at one time); Currency Transaction Reports (deposits or withdrawals of more than \$10,000 in currency into or from a domestic financial institution); Suspicious Activity Reports (information regarding suspicious financial transactions within depository institutions, money services businesses,<sup>104</sup> the securities and futures industry, and casinos and card clubs); Reports of Coins or Currency Received in a Non-Financial Trade or Business (transactions involving more than \$10,000 received by such entities); and data provided in Reports of Foreign Bank and Financial Accounts (reports by U.S. persons who have financial interest in, or signature or other authority over, foreign financial accounts in excess of \$10,000). Other financial data collected by other federal, state, and local law enforcement agencies is collected by such agencies in the course of an official investigation, through legal processes, and/or through legal settlements and has been provided to ICE to deter international money laundering and related unlawful activities.<sup>105</sup>

ICE receives law enforcement records from the U.S. Department of the Treasury, Office of Foreign Assets Control's Specially Designated Nationals (SDN) List and CBP's TECS system (subject records). In addition to listing individuals and companies owned or controlled by, or acting on behalf of, targeted countries, the SDN List includes information about foreign individuals, groups and entities, such as terrorists and narcotics traffickers, designated under programs that are not country-specific. Their assets are blocked, and U.S. persons and entities are generally prohibited from dealing with them. FALCON-DARTTS analysis of the SDN List allows ICE HSI users to rapidly determine whether international trade and/or financial transactions with a specially designated individual or entity are being conducted, thus providing ICE HSI with the ability to take appropriate actions in a timely and more efficient manner.

Subject records created by ICE HSI users from CBP's TECS database pertain to persons, vehicles, vessels, businesses, aircraft, etc. FALCON-DARTTS accesses this data stored within the FALCON general data storage environment, eliminating the need for an additional copy of the data.

<sup>104</sup> The BSA, pursuant to 31 U.S.C. § 5318 requires a money services business (MSB) to complete and submit Suspicious Activity Reports to FinCEN. Entities qualifying as MSBs are defined under 31 C.F.R. § 1010.100(ff). They include money transmitters; issuers; redeemers and sellers of money orders and travelers' checks; and check cashers and currency exchangers. FinCEN administers the BSA, which requires financial depository institutions and other industries vulnerable to money laundering to take precautions against financial crime, including reporting financial transactions possibly indicative of money laundering. 31 U.S.C. §§ 5311-5330.

<sup>105</sup> For example, a court may direct a corporation to provide data to law enforcement agencies after determining that the corporation did not practice due diligence to deter money laundering and/or has facilitated criminal activities.

FALCON-DARTTS analysis of TECS subject records allows ICE HSI users to determine quickly if an entity that is being researched in FALCON-DARTTS is already part of a pending investigation or was involved in an investigation that is now closed.

In addition to the raw data collected from other agencies and foreign governments, ICE HSI users are permitted to manually upload records into FALCON-DARTTS on an *ad hoc* basis. Information uploaded on an *ad hoc* basis is obtained from various sources such as financial institutions, transportation companies, manufacturers, customs brokers, state, local, and foreign governments, free trade zones, and port authorities, and may include financial records, business records, trade transaction records, and transportation records. For example, pursuant to an administrative subpoena, HSI investigators may obtain financial records from a bank associated with a shipment of merchandise imported into a free trade zone. Both the ability to upload information on an *ad hoc* basis and to access *ad hoc* data is limited to ICE HSI FALCON-DARTTS users only.

FALCON-DARTTS itself is the source of analyses of the raw data produced using analytical tools within the system.

## 5. Efficacy

Through the use of FALCON-DARTTS, domestic HSI field offices and foreign attaché offices have the ability to initiate and enhance criminal investigations related to trade-based money laundering, trade fraud, and other financial crimes. Information derived from FALCON-DARTTS has been essential in enforcement actions both domestically and abroad. For example, in March 2017, at the request of Panamanian customs officials, HSI Panama initiated an investigation targeting Panama-based companies involved in the illicit trade of tobacco and related products. FALCON-DARTTS analytics were used in support of the investigation, which resulted in the seizure of 96,638,200 cigarettes (value exceeding \$10 million USD), and the arrest of three Panamanian citizens and one Costa Rican national for violations of Panamanian law concerning smuggling. Panamanian authorities made the aforementioned seizures and arrests during enforcement operations conducted from March 8, 2017 to May 12, 2017. Investigative activity indicated the contraband cigarettes were intended to be smuggled into Costa Rica.

In August 2017, Argentina used FALCON-DARTTS to detect its largest case of illegally imported merchandise to date. The case was associated with 58 containers that were loaded in the United States and exported to Argentina. Argentina reported that the merchandise in the 58 containers totaled approximately 1,600,000,000 pesos or \$91,400,000 USD. The potential tax revenue loss associated with the smuggled merchandise totaled approximately 653,000,000 pesos or \$37,000,000 USD.

## 6. Laws and Regulations

ICE is authorized to collect the information analyzed by FALCON-DARTTS pursuant to the Trade Act of 2002 § 343, 19 U.S.C. § 2071 Note; 19 U.S.C. § 1484; and 31 U.S.C. § 5316. ICE HSI has the jurisdiction and authority to investigate violations involving the importation or exportation of merchandise into or out of the United States. Information analyzed by FALCON-DARTTS supports, among other things, HSI's investigations into smuggling violations under 18 U.S.C. §§ 541, 542, 545, and 554; money laundering investigations under 18 U.S.C. § 1956; and merchandise imported in non-compliance with 19 U.S.C. §§ 1481 and 1484. DHS is authorized to maintain documentation of these activities pursuant to 19 U.S.C. § 2071 Note (Cargo Information) and 44 U.S.C. § 3101 (Records Management by Agency Heads; General Duties). Information analyzed by

FALCON-DARTTS may be subject to regulation under the Privacy Act of 1974,<sup>106</sup> the Trade Secrets Act,<sup>107</sup> and BSA.<sup>108</sup>

## 7. Privacy Impact and Privacy Protections

ICE does not use FALCON-DARTTS to make unevaluated decisions about individuals; FALCON-DARTTS is used solely as an analytical tool to identify anomalies. It is incumbent upon the HSI investigator to further investigate the reason for an anomaly. HSI investigators gather additional facts, verify the accuracy of the FALCON-DARTTS data, and use their judgment and experience to determine whether an anomaly is, in fact, suspicious and warrants further investigation for criminal violations. HSI investigators are required to obtain and verify the original source data from the agency that collected the information to prevent inaccurate information from propagating. All information obtained from FALCON-DARTTS is independently verified before it is acted upon or included in an HSI investigative or analytical report.

FALCON-DARTTS data is generally subject to access requests under the Privacy Act and FOIA and amendment requests under the Privacy Act, unless a statutory exemption covering specific data applies. U.S. and foreign government agencies that collect information analyzed by FALCON-DARTTS are responsible for providing appropriate notice on the forms used to collect the information, or through other forms of public notice, such as SORNs.<sup>109</sup> FALCON-DARTTS will coordinate requests for access or to amend data with the original data owner. ICE published a PIA for FALCON-DARTTS on January 16, 2014, and republished the SORN that applies to FALCON-DARTTS on December 1, 2014.<sup>110</sup>

All raw data analyzed by FALCON-DARTTS is obtained from other governmental organizations that collect the data under specific legislative authority. Therefore, FALCON-DARTTS relies on the systems and/or programs performing the original collection to provide accurate data. The majority of the raw data used by FALCON-DARTTS is presumed accurate because the data was collected directly from the individual or entity to whom the data pertains. Due to the law enforcement context in which FALCON-DARTTS is used, however, there are often significant impediments to directly verifying the accuracy of information with the individual to whom the specific information pertains.<sup>111</sup> In the event that errors in raw data are discovered by FALCON-DARTTS users, the FALCON-DARTTS system owner will notify the originating agency. All raw data analyzed by FALCON-DARTTS is updated at least monthly for all sources, or as frequently as the source system can provide updates or corrected information.

<sup>106</sup> 5 U.S.C. § 552a.

<sup>107</sup> 18 U.S.C. § 1905.

<sup>108</sup> 31 U.S.C. § 5311.

<sup>109</sup> The following SORNs published in the Federal Register describe the raw data ICE receives from U.S. agencies for use in FALCON-DARTTS: for FinCEN Information, Suspicious Activity Report System (Treasury/FinCEN .002) and BSA Reports System (Treasury/FinCEN .003) (updates for both of these SORNs were published at 77 Fed. Reg. 60014 (Oct. 1, 2012), available at <http://www.gpo.gov/fdsys/pkg/FR-2012-10-01/pdf/2012-24017.pdf>), ACS (Treasury/CS.278) (73 Fed. Reg. 77759 (Dec. 19, 2008), available at <http://www.gpo.gov/fdsys/pkg/FR-2008-12-19/html/E8-29801.htm>), and for CBP Information, DHS/CBP-001, Import Information System, 81 Fed. Reg. 48826 (July 26, 2016), available at <https://www.regulations.gov/document?D=DHS-2016-0048-0001>, and TECS, DHS/CBP-011, 73 Fed. Reg. 77778 (Dec. 19, 2008), available at <http://www.gpo.gov/fdsys/pkg/FR-2008-12-19/html/E8-29807.htm>).

<sup>110</sup> FALCON-DARTTS is covered by the ICE Trade Transparency and Analysis Research (TTAR) SORN, DHS/ICE-005, 79 Fed. Reg. 71112 (Dec. 1, 2014).

<sup>111</sup> For example, prior to an arrest, the agency may not have any communication with the subject because of the risk of alerting the subject to the agency's investigation, which could result in the subject fleeing or altering his or her behavior in ways that impede the investigation.

For *ad hoc* uploads, users are required to obtain supervisory approval before *ad hoc* data is uploaded into FALCON-DARTTS and may upload only records that are pertinent to the particular analysis project in FALCON-DARTTS on which they are working. In the event uploaded data is later identified as inaccurate, it is the responsibility of the user to remove those records from the system and re-upload the correct data. If the user who uploaded the data no longer has access privileges to FALCON-DARTTS, it is the responsibility of a supervisor or systems administrator to make the appropriate changes to the incorrect data.

The FALCON environment, of which FALCON-DARTTS is a component, was granted an ongoing Security Authorization on November 6, 2013. Any violations of system security or suspected criminal activity will be reported to the DHS Office of Inspector General, to the Office of the Information System Security Manager team in accordance with the DHS security standards, and to the ICE Office of Professional Responsibility.

As FALCON-DARTTS is a component system of the larger ICE HSI FALCON environment, FALCON-DARTTS uses the access controls, user auditing, and accountability functions described in the FALCON-SA PIA. For example, user access controls allow data access to be restricted at the record level, meaning that only datasets authorized for a user-specific profile are visible and accessible by that user. Audit capabilities log user activities in a user activity report, which is used to identify users who are using the system improperly.<sup>112</sup>

In addition to the auditing and accountability functions leveraged from FALCON-SA, FALCON-DARTTS maintains an additional audit trail with respect to its compliance with the July 2006 Memorandum of Understanding with the U.S. Department of the Treasury's FinCEN to identify, with respect to each query, the user, time and nature of the query, and the Bank Secrecy Act information viewed.

System access is granted only to ICE HSI, CBP, and foreign government personnel who require access to the functionality and data available in FALCON-DARTTS and its trade data subsystem in the performance of their official duties. Access is granted on a case-by-case basis by the FALCON-DARTTS Administrator, who is designated by the HSI TTU Unit Chief. User roles are regularly reviewed by a FALCON-DARTTS HSI supervisor to ensure that users have the appropriate access and that users who no longer require access are removed from the access list. All individuals who are granted user privileges are properly cleared to access information within FALCON-DARTTS and take system-specific training, as well as annual privacy and security training that stress the importance of authorized use of PII in government systems.

In 2009, NARA approved a record retention period for the information maintained in the legacy DARTTS system. ICE intends to request NARA approval to retire the legacy DARTTS records retention schedule and incorporate the retention periods for data accessible by FALCON-DARTTS into the forthcoming records schedule for the FALCON environment. The datasets used by FALCON-DARTTS will be retained for ten years. Some of the data used by FALCON-DARTTS is already maintained in the FALCON general data storage environment and subject to a proposed retention period; however, FALCON-DARTTS will only access these existing datasets for ten years. Several new datasets were added to the FALCON general storage environment with the launch of FALCON-DARTTS, and the retention and access period for those datasets is proposed to be ten years as well.

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<sup>112</sup> For more information on these controls, auditing, and accountability, see DHS/ICE/PIA-032A FALCON Search & Analysis System (FALCON-SA).

## D. FALCON-Roadrunner

### 1. 2017 Program Update

During the reporting period, ICE made no modifications or updates to FALCON-Roadrunner. FALCON-Roadrunner enables ICE HSI investigators and analysts to conduct trend analysis and generate investigative leads that are used to identify illicit procurement networks, terrorists groups, and hostile nations attempting to illegally obtain U.S. military products; sensitive dual-use technology; weapons of mass destruction; or chemical, biological, radiological, and nuclear materials. The system also provides HSI users the ability to perform research and generate leads for investigations of export violations within the jurisdiction of HSI. FALCON-Roadrunner is a module within ICE's existing FALCON environment, which is designed to permit ICE law enforcement and homeland security personnel to search and analyze data ingested from other federal, state, local, and foreign government and private sector sources, with appropriate user access restrictions and robust user auditing controls.<sup>113</sup>

ICE published the FALCON-Roadrunner PIA on November 12, 2014.<sup>114</sup> On December 1, 2014, ICE republished the TTAR SORN to expand its coverage to FALCON-Roadrunner.<sup>115</sup> On October 11, 2016, ICE published an updated FALCON-SA PIA to capture the immigration, law enforcement, and publicly available FALCON-Roadrunner data that is being stored in the FALCON environment and made accessible to additional users through FALCON-SA's user interface.

### 2. Program Description

One of ICE's highest enforcement priorities is to prevent illicit procurement networks, terrorist groups, and hostile nations from illegally obtaining U.S. military products; sensitive dual-use technology;<sup>116</sup> weapons of mass destruction; or chemical, biological, radiological, and nuclear materials. HSI oversees a broad range of investigative activities related to such violations of law. HSI enforces U.S. laws governing the export of military items, controlled dual-use goods, firearms, and ammunition, as well as exports to sanctioned or embargoed countries.

FALCON-Roadrunner provides two services in support of HSI:

- *Investigative Lead Generation:* FALCON-Roadrunner allows HSI investigators and analysts to generate leads for, and otherwise support, investigations of export violations within the jurisdiction of HSI. By using FALCON-Roadrunner to analyze trade data, HSI investigators and analysts are able to identify anomalous transactions and activities that may be indicative of export violations and warrant investigation. Experienced HSI investigators independently confirm and further investigate these anomalies.

<sup>113</sup> In February 2012, ICE deployed the first module of FALCON with the launch of FALCON-SA. FALCON-SA provides the capability to search, analyze, and visualize volumes of existing information in support of ICE's mission to enforce and investigate violations of U.S. criminal, civil, and administrative laws. For more information on the FALCON environment, see the FALCON-SA PIA available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>114</sup> FALCON-Roadrunner PIA available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>115</sup> See DHS/ICE-005, Trade Transparency Analysis and Research (TTAR), 79 Fed. Reg. 71112 (Dec. 1, 2014), available at: <https://www.gpo.gov/fdsys/pkg/FR-2014-12-01/html/2014-28168.htm>.

<sup>116</sup> Goods and technologies are considered to be dual-use when they can be used for both civil and military purposes, such as special materials, sensors and lasers, and high-end electronics.

- *Statistical/Trend Analysis*: FALCON-Roadrunner provides export enforcement-related statistical reporting capabilities, derived from trade data that investigators access. Statistical analytics and trend analysis is provided to the Export Enforcement Coordination Center, which is the primary forum within the Federal Government for executive departments and agencies to coordinate and enhance their export control enforcement activities.

FALCON-Roadrunner is owned and operated by HSI and made accessible to approved users via the ICE enterprise network. Only HSI investigators, analysts, and contractors are authorized to use the system. The results of FALCON-Roadrunner analyses are forwarded to ICE HSI field offices as part of an investigative referral package to initiate or support a criminal investigation. FALCON-Roadrunner allows users to perform research and analyses that are not possible in any other ICE system because of the unique capabilities of the technology it uses, the data available for analysis, and the level of detail at which the data can be analyzed. As part of the HSI investigative process, FALCON-Roadrunner users seek to understand and assess the relationships between importers, exporters, manufacturers, commodity end-users, shippers, denied parties, licensing, export controls, and financing for each and every trade transaction to determine which are suspicious and warrant further investigation. If performed manually, this process would involve hours or even days of analysis of voluminous data and may not reveal potential violations due to the sheer volume and complexity of the data.

### 3. Technology and Methodology

FALCON-Roadrunner allows users<sup>117</sup> to run complex search queries that assess massive volumes of trade transactions. These queries provide investigative leads and interdiction targets by identifying anomalies and non-obvious patterns and relationships within and across multiple large-scale trade, law enforcement, and other datasets. For example, FALCON-Roadrunner gives users the tools to work with multiple disparate datasets containing data elements of interest, and perform data filters or queries based on HSI-focused criteria thereby reducing millions of records to a more manageable quantity that they can then further investigate. This process and use of technology provides for a more robust method to identify non-obvious relationships within very large quantities of data.

Once created by users, these queries can be shared with other users to allow them to benefit from queries that are found to be more useful or current. This results in a repeatable methodology whereby the queries are run periodically to see if and how patterns change in key trade areas. Users analyze these anomalies to identify suspicious transactions that warrant further investigation. If determined to warrant further investigation, HSI investigators gather additional information, verify the accuracy of the FALCON-Roadrunner data, and use human judgment and experience in deciding whether to investigate further. Not all anomalies lead to formal investigations. Individual results are used tactically to generate leads and larger scale changes in the results are used strategically to inform ICE's overall enforcement strategy.

FALCON-Roadrunner is designed specifically to make this investigative process more efficient by leveraging advanced analytical technology designed to handle extremely large sets of complex data to identify anomalies and suspicious patterns/relationships. FALCON-Roadrunner is an analytical toolset specifically designed to rapidly process and analyze extremely large sets of data. These tools are connected to a data store (highly distributed file system) that ingests data from transactional databases and stores the data in a non-relational form. On ingestion, each data element is tagged and

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<sup>117</sup> In respect to the discussion of FALCON-Roadrunner, the term "user," means 'ICE HSI investigators and analysts.'

stored in a flat structure, which allows for greater parallel computation by the tools connected to the database and therefore provides a greater analytical capacity to identify non-obvious relationships. FALCON-Roadrunner will use this capacity to create and automatically apply repeatable, analytical search queries and processes to determine non-obvious, anomalous behaviors within the large-scale trade data. These search queries are not automated. Users have to input a command to return a result. The command can be repeated regularly, and a delta identified, but the user still needs to request when and how often a query needs to run. The system can check a hit list against a master dataset and return back any matching entities, but there is no alert function.

FALCON-Roadrunner's system architecture has three basic levels:

- (1) A foundational or data storage layer managed with commercial off-the-shelf (COTS) software.
- (2) An analytical layer with two COTS applications that permit data to be displayed in a variety of ways, using a variety of filters. Data results from the use of one filter can be verified by using alternate filters.
- (3) A "Widget Manager," which is a government off-the-shelf product, to allow users to access the tools from a single platform.

Pattern and anomaly detection is at the discretion of the user. A rule or data filter is applied to the data. The rule is created based on the investigator's or analyst's knowledge of data in a particular data set, and the factors that could constitute an anomaly. For example, if the investigator or analyst wishes to determine potential smugglers of sensitive material, the investigator/analyst will need to know which data points the system should focus on in order to identify what he/she feels is an anomaly. There is no automated method to identify anomalies – all results have to be visually inspected to determine acceptance as an anomaly. Queries can be saved, however, for repetitive use and use by others with permission to access the system.

Since FALCON-Roadrunner is an analytical tool over the larger FALCON environment, the datasets FALCON-Roadrunner analyzes are stored in the FALCON general data storage environment and are available to FALCON-Roadrunner users for additional analysis and investigation using the tools and additional data that is available in FALCON-SA. Some of the data available to FALCON-Roadrunner users is also made available to FALCON-SA users, while other data will only be available in FALCON-SA if the user also has Roadrunner privileges. FALCON-SA enforces these access restrictions by requiring users with FALCON-Roadrunner privileges to designate their investigations within the system as HSI investigations; otherwise, the datasets specific to FALCON-Roadrunner will not be available for use and analysis in FALCON-SA. As discussed in Section 4, FALCON-Roadrunner adds new immigration, law enforcement, and publicly available data to the FALCON general data storage environment. ICE is updating the FALCON-SA PIA Appendix to reflect the new data is available via FALCON-SA as a result of the FALCON-Roadrunner system coming online.

## 4. Data Sources

FALCON-Roadrunner uses various categories of data collected by other agencies, foreign governments, and commercial sources (hereafter referred to as "raw data"). With the exception of ICE TECS records and visa security information, all raw data used for FALCON-Roadrunner is provided by other U.S. government agencies, foreign governments, and commercial sources. The raw data sources are divided into the following broad categories: U.S. trade data, foreign trade data, screening lists, financial data, law enforcement data, and commercial data.

U.S. trade data is (1) import data in the form of extracts from ACS, which CBP collects from individuals and entities importing merchandise into the United States that complete CBP Form 7501 (Entry Summary) or provide electronic manifest information via the Automated Commercial Environment and (2) export data in the form of EEI<sup>118</sup> that CBP collects from individuals and entities exporting merchandise from the United States.

Foreign import and export data analyzed by FALCON-Roadrunner is provided to ICE by foreign law enforcement and customs officials pursuant to CMAAs or other similar information sharing agreements. Certain countries provide trade data that has been stripped of PII. Other countries provide complete trade data, including the names of businesses and individuals and other identifying information that may be contained in the trade records.

Screening list data is produced by government entities and contains information on individuals and entities that are prohibited from engaging in certain trade transactions. These screening lists include: the publicly available European Union Denied Party Screening Lists<sup>119</sup> and the publicly available consolidated U.S. export screening lists of the U.S. Departments of Commerce, State, and Treasury.<sup>120</sup> The consolidated U.S. export lists serve as an aid to industry in conducting electronic screens of potential parties to regulated transactions. Additional detail about the contents of this screening list is included in Section 2.2 of the FALCON-Roadrunner PIA.

ICE receives financial data from other federal, state, and local law enforcement agencies that collected the data in the course of an official investigation, through legal processes, or legal settlements, or both, and has been provided to ICE to deter international money laundering and related unlawful activities.<sup>121</sup>

ICE receives law enforcement records from CBP's TECS system (subject and investigative records) and visa security data from DoS. TECS subject records include Person Subject, Vehicle Subject, Vessel Subject, Aircraft Subject, Thing Subject, Business Subject, and Organization Subject records. TECS investigative records concern current or previous law enforcement investigations into violations of U.S. customs and immigration laws, as well as other laws and regulations within ICE's jurisdiction, including investigations led by other domestic or foreign agencies when ICE is providing support and assistance.<sup>122</sup>

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<sup>118</sup> EEI is the export data as filed in AES, see <https://www.export.gov/article?id=Electronic-Export-Information-formerly-known-as-Shipper-s-Export-Declaration>. This data is the electronic equivalent of the export data formerly collected as Shipper's Export Declaration information. This information is now mandated to be filed through the AES or Automated Export System *Direct*, see <http://aesdirect.census.gov>. AES is operated jointly by the U.S. Census Bureau and CBP. See the Export Information System (EIS) PIA, available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>119</sup> In order to facilitate the application of financial sanctions, the Banking Federation of the European Union, the European Savings Banks Group, the European Association of Co-operative Banks, the European Association of Public Banks (EU Credit Sector Federations), and the European Commission created an EU consolidated list of persons, groups, and entities subject to Common Foreign and Security Policy-related financial sanctions. The consolidated list database was developed to assist the members of the EU Credit Sector Federations in their compliance with financial sanctions. See [http://eeas.europa.eu/cfsp/sanctions/consol-list\\_en.htm](http://eeas.europa.eu/cfsp/sanctions/consol-list_en.htm).

<sup>120</sup> See [www.export.gov/ect/eg\\_main\\_023148.asp](http://www.export.gov/ect/eg_main_023148.asp).

<sup>121</sup> For example, a court may direct a corporation to provide data to law enforcement agencies after determining that the corporation did not practice due diligence to deter money laundering and/or has facilitated criminal activities.

<sup>122</sup> See TECS System: CBP Primary and Secondary Processing (TECS) National SAR Initiative and TECS System: CBP Primary and Secondary Processing PIAs, available at: <http://www.dhs.gov/privacy-impact-assessments>. See also DHS/CBP-011, TECS, 73 Fed. Reg. 77778 (Dec. 19, 2008), available at: <http://www.gpo.gov/fdsys/pkg/FR-2008-12-19/html/E8-29807.htm>.

Visa security data is collected by DoS directly from visa applicants as part of the visa application process. The data is then provided to DHS for security review, and is stored in ICE's VSPTS-Net system. It is ingested from VSPTS-Net into the FALCON environment via a system to system connection.<sup>123</sup>

Lastly, FALCON-Roadrunner ingests commercially available counter-proliferation data to screen commodity end-users, individuals, and other parties involved in a transaction against both denied parties (e.g., individuals and entities that have been denied export privileges) and profiles of entities determined by an outside independent group to have some level of risk for illicit proliferation of nuclear technology, commodities, or weapons delivery systems. The system also contains commercially available business insights about companies based on the sectors in which they participate through the sale of products and services, the companies' interconnecting supply chain relationships, and the companies' geographic revenue exposure. This information is compiled from publicly available press releases, investor presentations, corporate actions, and Internet queries.

FALCON-Roadrunner itself is the source of analysis of the raw data produced using analytical tools within the system.

## 5. Efficacy

In March 2017, FALCON-Roadrunner was transitioned from HSI Counter-Proliferation Investigations (CPI) to the HSI Information Management Division. The transition made the FALCON Roadrunner technology, analytic methodologies, and knowledge more widely available across HSI program areas.

As of the time of this reporting, the integrated FALCON-Roadrunner program has completed 239 support requests, furthering 92 active criminal investigations. FALCON-Roadrunner data analysis assisted HSI criminal investigators in 65 criminal arrests, 60 indictments, 18 convictions, and 35 administrative arrests. FALCON-Roadrunner analysis also assisted in the seizure of arms, ammunition, currency, vehicles, and computers with a monetary value of \$17,826,046, as well as 7,105 pounds of narcotics. FALCON-Roadrunner data scientists have also assisted in high profile money laundering investigations, assisting investigators with the organization and analysis of large volumes of previously unintelligible banking information. FALCON-Roadrunner also produced in depth reports addressing the dumping of aluminum tubing produced in China on the U.S. market, transducers used in nuclear refinement, high risk nuclear commodities at risk of diversion, space and missile technology exports, U.S arms and ammunition exports, exports at risk of trans-shipment to North Korea, and additive manufacturing.

## 6. Laws and Regulations

ICE is authorized to collect the information analyzed in FALCON-Roadrunner pursuant to: 6 U.S.C. § 236; 19 U.S.C. § 1589a; the *Trade Act of 2002* § 343 (Note to 19 U.S.C. § 2071); 19 U.S.C. § 1484; 50 U.S.C. app. § 2411; and 19 C.F.R. §§ 161.2 and 192.14. HSI has the jurisdiction and authority to investigate violations involving the importation and exportation of merchandise into or out of the United States. Specifically, information analyzed by FALCON-Roadrunner, supports, among other things, HSI's investigations into smuggling violations under 18 U.S.C. §§ 541, 542, 545, and 554; money laundering investigations under 18 U.S.C. §§ 1956, 1957, and 1960;

<sup>123</sup> Visa Security Program Tracking System-Network PIA available at: <http://www.dhs.gov/privacy-impact-assessments> and Visa Security Program Records SORN, DHS/ICE-012, 74 Fed. Reg. 50228 (Sept. 30, 2009), available at <http://www.gpo.gov/fdsys/pkg/FR-2009-09-30/html/E9-23522.htm>.

and merchandise imported in non-compliance with 19 U.S.C. §§ 1481 and 1484.

## 7. Privacy Impact and Privacy Protections

Any law enforcement investigation that is initiated as a result of a FALCON-Roadrunner analysis will, from that point forward, be carried out like any other criminal investigation. ICE will follow normal investigatory protocols and the same civil liberties and constitutional restrictions, such as the Fourth Amendment's probable cause requirements, will apply. HSI investigators and analysts are prohibited from taking a law enforcement action against an individual or entity based on data and analysis from FALCON-Roadrunner alone. FALCON-Roadrunner is a system designed to help investigators generate leads for new or existing investigations. HSI investigators and analysts will fully investigate leads generated by FALCON-Roadrunner analyses before taking action against an individual or entity. To ensure they have the best evidence available to support any case they are building, the investigators obtain the needed information from the original data sources and further investigate the reason for the anomaly. If the anomaly can be legitimately explained, there is no need to further investigate for criminal violations. Any and all information obtained from FALCON-Roadrunner will be independently verified before it is acted upon or included in an ICE investigative or analytical report.

FALCON-Roadrunner data is generally subject to access requests under the Privacy Act and FOIA and requests for amendment under the Privacy Act, unless a statutory exemption covering specific data applies. U.S. and foreign government agencies that collect information analyzed by FALCON-Roadrunner are responsible for providing appropriate notice on the forms used to collect the information, or through other forms of public notice, such as SORNs.<sup>124</sup> FALCON-Roadrunner will coordinate requests for access or to amend data with the original data owner. ICE published a PIA for FALCON-Roadrunner on November 12, 2014, and republished the SORN that applies to FALCON-Roadrunner on December 1, 2014.<sup>125</sup>

With the exception of ICE TECS records and visa security information, all information in FALCON-Roadrunner is obtained from other governmental organizations that collect the data under specific legislative authority or from commercial vendors. The original data collector is responsible for maintaining and checking the accuracy of its own data and has various means to do so. The majority of the data loaded into FALCON-Roadrunner is deemed highly accurate because the data was provided by third parties that directly collected it from the individual or entity to which the data pertains. In other instances, however, the data about individuals or entities is provided to the governmental organization by a third party. Commercial vendors are considered to have a financial incentive to provide high-quality and accurate data to their customers. The system owner and users are aware that they cannot independently verify the accuracy of the bulk data the system receives. FALCON-Roadrunner is updated when corrected data is received from the collecting governmental organizations and commercial vendors. In the event that errors are discovered, the FALCON-

<sup>124</sup> The following SORNs are published in the Federal Register and describe the raw data ICE receives from U.S. agencies for use in FALCON-Roadrunner: DHS/CBP-001, Import Information System, 81 Fed. Reg. 48826 (July 26, 2016), available at: <https://www.regulations.gov/document?D=DHS-2016-0048-0001>; DHS/CBP-011 TECS, 73 Fed. Reg. 77778 (Dec. 19, 2008), available at: <https://www.gpo.gov/fdsys/pkg/FR-2008-12-19/html/E8-29807.htm>; DHS/ICE-005, Trade Transparency Analysis and Research (TTAR), 79 Fed. Reg. 71112 (Dec. 1, 2014), available at: <https://www.gpo.gov/fdsys/pkg/FR-2014-12-01/html/2014-28168.htm>; DHS/ICE-006, ICE Intelligence Records System (IIRS), 75 Fed. Reg. 9233 (Mar. 1, 2010), available at: <https://www.gpo.gov/fdsys/pkg/FR-2010-03-01/html/2010-4102.htm>; and DHS/ICE-012, Visa Security Program Records, 74 Fed. Reg. 50228 (Sept. 30, 2009), available at: <http://www.gpo.gov/fdsys/pkg/FR-2009-09-30/html/E9-23522.htm>.

<sup>125</sup> FALCON-Roadrunner is covered by DHS/ICE-005, Trade Transparency Analysis and Research (TTAR), 79 Fed. Reg. 71112 (Dec. 1, 2014) available at: <https://www.gpo.gov/fdsys/pkg/FR-2014-12-01/html/2014-28168.htm>.

Roadrunner system owner will notify the originator of the data. The system owner will remove datasets that are found over time to have poor data quality from FALCON-Roadrunner.

Access to FALCON-Roadrunner is limited to HSI investigators and analysts who conduct official investigative activities. Access privileges are only granted by the FALCON system administrator with the explicit written permission of the FALCON-Roadrunner Program Manager. FALCON-Roadrunner privileges are evaluated on a case-by-case basis.

The FALCON environment, of which FALCON-Roadrunner is a component, was granted an ongoing Security Authorization on November 6, 2013. Any violations of system security or suspected criminal activity will be reported to the DHS Office of Inspector General, Office of the Information System Security Manager team in accordance with the DHS security standards, and to the ICE Office of Professional Responsibility. Since FALCON-Roadrunner is part of the larger FALCON environment, the system uses the same access controls, user auditing, and accountability as those described in the FALCON-SA PIA. For more information on these, please see the FALCON-SA PIA.<sup>126</sup>

ICE intends to incorporate the retention periods for data accessible by FALCON-Roadrunner into the forthcoming records schedule for the FALCON environment. The data used by FALCON-Roadrunner will be accessed for ten years. Some of the data used by FALCON-Roadrunner is already maintained in the FALCON general data storage environment and subject to a proposed retention period; however, FALCON-Roadrunner will only access these existing datasets for ten years. Several new datasets were added to the FALCON general storage environment with the launch of FALCON-Roadrunner, and the retention and access period for those datasets is proposed to be ten years as well.

## E. DHS Data Framework

### 1. 2017 Program Update

Although the Framework is not currently focusing on its data mining capability, it will be explored in the future. DHS continues to mature its Department-wide big data program, the DHS Data Framework.<sup>127</sup> To ensure appropriate technical and policy governance of the program – including the incorporation of robust privacy, civil rights and civil liberties protections – DHS is deploying the Data Framework in an iterative fashion. The current iteration of the Framework includes Neptune,<sup>128</sup> an unclassified platform, and Cerberus,<sup>129</sup> a classified platform. In 2017, the Data Framework Program implemented stringent quality and compliance controls to its operational datasets, executed a comprehensive technical refresh of the Neptune platform, and continued its operational mission use in the Classified Networks for both DHS and the Intelligence Community. Below is a summary of the Data Framework phases to date:

**Pilot Phase:** Between November 2013 and August 2014, DHS deployed a Framework Pilot phase to test the mission utility, technical feasibility, and policy protections of the Framework in a non-operational context.<sup>130</sup>

<sup>126</sup> FALCON-SA PIA available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>127</sup> PIAs for the DHS Data Framework are available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>128</sup> Neptune PIAs are available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>129</sup> Cerberus PIAs are available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>130</sup> For more information about the Pilot phase, please see the following PIAs: DHS/ALL/PIA-046 DHS Data Framework (November 2013); DHS/ALL/PIA-046-1 Neptune Pilot; DHS/ALL/PIA-046-2 Common Entity Index Prototype; and DHS/ALL/PIA-046-3 Cerberus Pilot, available at: <http://www.dhs.gov/privacy-impact-assessments>.

**Limited Production Capability Phase:** Between August 2014 and April 2015, DHS deployed a Limited Production Capability to further test the Framework’s capabilities within a controlled operational context.<sup>131</sup>

**Initial Operational Capability Phase:** Beginning in April 2015, DHS entered an Initial Operational Capability phase. Initially, the Framework’s uses, users, and capabilities (i.e., the basic search functions) remained the same as during the Limited Production Capability phase. However, during the Initial Operational Capability phase, the Framework introduced new DHS data sets, and added new technical capabilities (e.g., increased data refresh capabilities) for use within a controlled operational context.<sup>132</sup>

In 2017, specifically, one of the Framework’s primary activities was the completion of an initiative to achieve mission operator requirements for data quality, including measures for data completeness, accuracy, and timeliness along with the ability to enforce rules for the retention of data.

The second major initiative was to address operational stability and planned expansion required for production to onboard additional users, data, and capabilities. In late 2017, the Framework launched a critical technical refresh project to enhance the system’s performance and build for future scalability. The critical refresh, completed in 1Q 2018, was undertaken to establish a strong system foundation to mature the Framework as a true Enterprise Data Management (EDM) platform, and will bring enhanced capabilities to the Framework’s component users. These capabilities will include high speed, high quality data through near real time data processing; an advanced ability to identify record changes and updates; and data flow monitoring. Additionally, the refresh will bring improved system performance through an enhanced security posture, integration with DHS enterprise-wide services, and the ability to support future growth and increased data volumes.

Regarding data sets in the Data Framework, as of February 14, 2018, 16 data sets have been approved for inclusion in the Initial Operational Capability. These data sets are identified in sub-section 4 below. It should be noted that only 4 data sets have been re-loaded into the Data Framework (indicated by \* in sub-section 4 below) due to technical challenges and data set revalidation processes.

DHS will continue to onboard new DHS users of the Data Framework. In 2017, the Data Framework added Transportation Security Administration users.

The DHS Privacy Office has been intensively involved in the onboarding of users, new data, and new capabilities and in the Framework as a whole since its inception. The Privacy Office will evaluate the need for updated PIAs and continue to be involved in the development of the governance structure of the Framework. In future Data Mining Reports, the Office will provide further details on the Framework as it becomes operational.

## 2. Program Description

The Data Framework is the Department’s information sharing platform for the movement of data from the unclassified environment to the classified environment. It was established to protect and share information across DHS entities, while promoting agile and data-driven decision capabilities

<sup>131</sup> For more information about the Limited Production Capability phase, please see the following PIAs: DHS/ALL/PIA-046(a) DHS Data Framework; DHS/ALL/PIA-046-1(a) Neptune Pilot; and DHS/ALL/PIA-046-3(a) Cerberus Pilot, available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>132</sup> For more information about the Initial Operational Capability Phase, please see the DHS/ALL/PIA-046 DHS Data Framework, available at: <http://www.dhs.gov/privacy-impact-assessments>.

to meet multiple mission needs. The Framework's current core capabilities include single-site search available on classified networks, dynamic access controls to safeguard information from multiple sources while enhancing sharing, near real-time movement of data for operational decision-making, centralized access to data across DHS components, and a single distribution point for DHS data to the Intelligence Community (IC). The Framework alleviates mission limitations associated with stove-piped IT systems that are currently deployed across multiple operational components in DHS. It also enables more controlled, effective, and efficient use and sharing of available homeland security-related information across the DHS enterprise and, as appropriate, the U.S. Government, while protecting privacy. Currently, the Framework includes the Neptune (unclassified) and Cerberus (classified) systems.

DHS changed the way it structures its information architecture and data governance to further consolidate information in a manner that protects individuals' privacy, civil rights, and civil liberties. Existing information maintained by the Department is subject to privacy, civil rights and civil liberties, and other legal and policy protections, and is collected under different authorities and for various purposes. The existing architecture of DHS databases, however, is not conducive to effective implementation of the "One DHS" policy, which was implemented to afford DHS personnel timely access to relevant and necessary homeland-security information they need to successfully perform their duties and protect the Homeland.<sup>133</sup> Currently, accessing relevant information is cumbersome, time-intensive, and requires personnel to log on and query separate databases in order to determine what information DHS systems contain about a particular individual. The goal of the Framework is to provide a user the ability to search an amalgamation of data extracted from multiple DHS systems for a specific purpose and to view the information in a clear and accessible format. The Framework enables efficient and cost-effective searches across DHS databases in both classified and unclassified domains. The Framework defines four elements for controlling data:

*User attributes* identify characteristics about the user requesting access such as organization, clearance, and training;

*Data tags* label the data with the type of data involved, where the data originated, and when it was ingested;

*Context* combines what type of search and analysis can be conducted (function), with the purpose for which data can be used (authorized purpose); and

*Dynamic access control policies* evaluate user attributes, data tags, and context to grant or deny access to DHS data in the repository based on legal authorities and appropriate policies of the Department.

DHS logs activities of participants in the Framework to aid audit and oversight functions.

### 3. Technology and Methodology

Initially, the data tags, context, and dynamic access were tested to enable greater information sharing and comparison in support of operations and to build in greater privacy protections. The Framework incorporates a User Attribute Hub, which maintains a listing of a system user's

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<sup>133</sup> See *DHS Policy for Internal Information Exchange and Sharing*, February 1, 2007. Under the "One DHS" policy, DHS personnel requesting information maintained within another departmental component may access such information when the requestor (1) has an authorized purpose, mission, and need-to-know before accessing the information in performance of his or her duties; (2) possesses the requisite background or security clearance; and (3) assures adequate safeguarding and protection of the information.

attributes for determining access control (e.g., component in which the individual works, location, job series). This attribute hub is developed through a different effort by the DHS Office of the Chief Information Officer.

Privacy risks will be present in operational systems, like the Framework, when PII is transferred outside of the original IT system and into another system, such as the Framework. Such a process creates risks that the data will not be accurate, relevant, timely, or complete.

This risk will not be fully mitigated until DHS develops a near real time refresh capability. Until that time, the Data Framework Program Management Office identified the timelines for manually refreshing each existing data set, and has begun implementation of limited manual data set refreshes. For each new data set, DHS will use the onboarding process to identify and implement manual data refresh timelines. Also as part of this manual refresh process, users will be required to verify information in the source system before issuing any raw intelligence (e.g., intelligence information report), completing any final analysis, or using the information operationally.

## 4. Data Sources

As of February 14, 2018, 16 data sets have been approved for inclusion in the Initial Operational Capability while only 4 data sets have been re-loaded into the Data Framework, due to technological challenges and data set revalidation processes (these 4 data sets are indicated by an \* below) . These data sets are listed in Appendix A<sup>134</sup> of the Framework PIA and include:

Electronic System for Travel Authorization (ESTA)\*;<sup>135</sup>

Alien Flight Student Program (AFSP);<sup>136</sup>

Student Exchange Visitor Information System (SEVIS);<sup>137</sup>

Advance Passenger Information System (APIS)\*;<sup>138</sup>

Form I-94\*;<sup>139</sup>

Passenger Name Record (PNR)\*;<sup>140</sup>

Section 1367 Data Extracted from the Central Index System;<sup>141</sup>

Refugee, Asylum, and Parole System (RAPS);<sup>142</sup>

<sup>134</sup> Appendix A is available at: <https://www.dhs.gov/sites/default/files/publications/privacy-pia-dhs-all-046-dataframeworkappendixa-october2016.pdf>.

<sup>135</sup> The DHS/CBP/PIA-007 Electronic System for Travel Authorization PIA is available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>136</sup> The DHS/TSA/PIA-026 Alien Flight Student Program (AFSP) PIA is available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>137</sup> The DHS/ICE/PIA-001 Student Exchange Visitor Information System (SEVIS) PIA is available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>138</sup> The DHS/CBP/PIA-001 Advance Passenger Information System (APIS) PIA is available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>139</sup> The DHS/CBP/PIA-016 for Form I-94 Automation is available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>140</sup> PNR information is covered by DHS/CBP/PIA-006(d) ATS-TSA/CBP Common Operating Picture Phase II is available at: <http://www.gpo.gov/fdsys/pkg/FR-2012-05-22/html/2012-12396.htm>.

<sup>141</sup> The DHS/USCIS/PIA-009 Central Index System PIA is available at: <http://www.dhs.gov/privacy-impact-assessments>. The associated SORN is available at: <http://www.gpo.gov/fdsys/pkg/FR-2013-11-21/html/2013-27895.htm>.

<sup>142</sup> The DHS/USCIS/PIA-27 Refugee, Asylum and Parole System and the Asylum Pre-Screening System PIA is

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Ship Arrival Notification System (SANS);<sup>143</sup>

Border Crossing Information (BCI);<sup>144</sup>

Aviation Worker Data;<sup>145</sup>

Airspace Waivers and Flight Authorizations for Certain Aviation Operations (including DCA) Data;<sup>146</sup>

Maryland-Three (MD-3) Airports Data;<sup>147</sup>

Private Charter and Twelve Five Program Data,<sup>148</sup> and

Secure Flight Confirmed Matches Data.<sup>149</sup>

DHS will continue to update Appendix A of the Framework PIA as new data sets are added. For a high-level description of each data set in the Framework, please see Appendix A of the Framework PIA.

## 5. Efficacy

During the Initial Operational Capability Phase, DHS will continue to add new DHS data sets and new users from DHS. DHS will provide additional information in future Data Mining Reports on the efficacy of the Framework.

## 6. Laws and Regulations

The DHS Data Framework is authorized by 6 U.S.C. § 121(d)(13), which directs the Secretary, through the Under Secretary for Intelligence and Analysis, to, among other things, “establish and utilize, in conjunction with the [C]hief [I]nformation [O]fficer of the Department, a secure communications and information technology infrastructure, including data-mining and other advanced analytical tools, in order to access, receive, and analyze data and information in furtherance of the responsibilities under this section, and to disseminate information acquired and analyzed by the Department, as appropriate”; 40 U.S.C. § 11315(b)(2), which provides that “[t]he Chief Information Officer of an executive agency is responsible for,” among other things, “developing, maintaining, and facilitating the implementation of a sound, secure, and integrated information technology architecture for the executive agency”; and 44 U.S.C. § 3506 (a)(2), (b)(1)(C), which requires the head of each executive agency to designate a Chief Information Officer, who shall, among other things, “improve the integrity, quality, and utility of information to

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available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>143</sup> The DHS/USCG/PIA-006(b) Vessel Requirements for the Notice of Arrival and Departure (NOAD) and Automatic Identification System (AIS) Rulemaking is available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>144</sup> The DHS/CBP/PIA-004(g) Beyond the Border Entry/Exit Program Phase II PIA is available at:

<http://www.dhs.gov/privacy-impact-assessments>.

<sup>145</sup> The DHS/TSA/PIA-020, Security Threat Assessment for Airport Badge and Credential Holders (SIDA) PIA is available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>146</sup> The DHS/TSA/PIA-020 Security Threat Assessment for Airport Badge and Credential Holders (SIDA) PIA is available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>147</sup> The DHS/TSA/PIA-022 Maryland Three (MD-3) Airports PIA is available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>148</sup> The DHS/TSA/PIA-017 Large Aircraft Security Program PIA is available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>149</sup> The DHS/TSA/PIA-018(g) Secure Flight Program PIA is available at: <http://www.dhs.gov/privacy-impact-assessments>.

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all users within and outside the agency, including capabilities for ensuring dissemination of public information, public access to government information, and protections for privacy and security.”

## 7. Privacy Impact and Privacy Protections

Robust privacy protections are the bedrock of the Framework’s design and operations. Privacy impact identification and privacy protections are facilitated through a multi-faceted approach utilizing Privacy Threshold Analyses (PTA), PIAs, the Data Framework Working Group (DFWG), and engagement of the Data Access Request Council (DARC), which are detailed below:

- Privacy protections are addressed through the requirement of PTAs to be submitted with each dataset targeted for onboarding. The PTA is intended to ensure formal consideration of the PIA and SORN of any new source IT systems as well as provide an examination of access control rules and the user access controls related to the dataset.
- As part of the establishment of the Framework, in-depth PIAs for the Framework and its underlying components were written and published. Specifically, DHS has published PIAs for the DHS Data Framework itself,<sup>150</sup> Cerberus,<sup>151</sup> Neptune,<sup>152</sup> Common Entity Index (CEI),<sup>153</sup> and the Interim Process to Address an Emergent Threat.<sup>154</sup>
- The Data Framework Working Group (DFWG), of which DHS Privacy is a member, must approve all data sets being ingested and the requestors must provide an articulated use that is consistent with the use or uses approved for the IT source system. All external bulk transfers of data require the approval not only of the DFWG but the Data Access Request Council (DARC), of which DHS Privacy is a member, to ensure any information sharing is governed by the appropriate Information Sharing and Access Agreement and contains requisite disclosures related to records access and purpose for access. For the most recent information on the Framework’s privacy impacts and protections, please see the relevant PIAs.<sup>155</sup>

## F. SOCRATES Pilot

CBP’s Trade Remedy Law Enforcement Directorate (TRLED), within the Office of International Trade (OT), continues to work on a project with the Johns Hopkins University Applied Physics Laboratory (JHU/APL) to provide commercial trade data to enhance and identify pattern identification, entity links, and anomalies within large datasets. As part of CBP’s mission, OT identifies trade risks that may include transshipment schemes to evade the payment of Anti-

<sup>150</sup> DHS/ALL/PIA-046 DHS Data Framework. Multiple iterations are available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>151</sup> DHS/ALL/PIA-046-3 Cerberus. Multiple iterations are available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>152</sup> DHS/ALL/PIA-046-1 Neptune. Multiple iterations are available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>153</sup> DHS/ALL/PIA-046-2 Common Entity Index Prototype. Multiple iterations are available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>154</sup> The DHS/ALL/PIA-051 DHS Data Framework – Interim Process to Address an Emergent Threat is available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>155</sup> DHS/ALL/PIA-046 DHS Data Framework. Multiple iterations are available at: <http://www.dhs.gov/privacy-impact-assessments>; DHS/ALL/PIA-046-3 Cerberus. Multiple iterations are available at: <http://www.dhs.gov/privacy-impact-assessments>; DHS/ALL/PIA-046-1 Neptune. Multiple iterations are available at: <http://www.dhs.gov/privacy-impact-assessments>; DHS/ALL/PIA-046-2 Common Entity Index Prototype. Multiple iterations are available at: <http://www.dhs.gov/privacy-impact-assessments>.

Dumping and Countervailing Duties (AD/CVD),<sup>156</sup> the filing of false Free Trade Agreement claims, and the use of identity theft to facilitate the importation of counterfeit merchandise. This project was initiated to determine which analytical abilities JHU/APL could apply to trade data analytics. During Fiscal Year (FY) 2017, JHU/APL continued conducting a pilot test using import data.

JHU/APL uses a government-off-the-shelf product named SOCRATES, developed by mathematicians at JHU/APL. SOCRATES, in conjunction with supporting software, is used to develop algorithms to analyze large datasets looking for both normal and abnormal trade patterns of behavior. This results in the identification of anomalies in trade patterns or behaviors that may indicate illicit or criminal behavior in the trade environment. An anomaly may also indicate behavior that is completely within the law and is legal; though, it may not fit within the normal trade behavior of the dataset. These anomalies lead to the examination of real time importations, matching against the anomalies, to determine if a violation of law or illicit activity occurred. Initial test results performed on import data provided positive results of trade anomalies that will be validated for illicit trade activity during FY2018.

The pilot data utilized by SOCRATES was obtained from the OT Analytical Development Division (ADD) Warehouse, the main data repository for OT, which also contains CBP historical data. The data in the ADD Warehouse is extracted from ATS<sup>157</sup> and ACE<sup>158</sup> on a monthly basis. The data being pulled from ATS consists only of cargo examination data contained in the Cargo Enforcement Reporting and Tracking System (CERTS) portion of ATS. ACE data includes entry summary transactions filed with CBP by importers for the last 10 years of transaction data. This data contains information such as importer numbers, as well as the trade data elements contained within the required commercial entry documents (e.g., Bill of Lading, Entry, and Entry Summary).<sup>159</sup> SOCRATES does not interact directly with CBP's systems, but is housed on CBP servers connected to CBP's network. Only CBP-cleared JHU/APL team members who have signed a non-disclosure agreement, have a CBP Personal Identity Verification card, and CBP network access can work on SOCRATES and CBP Trade Data. User activity is logged by the CBP Office of Information and Technology (OIT) and by the CBP server housing SOCRATES. OIT is currently implementing additional security measures, such as the capability to track more detailed user activity.

The project is in the pilot phase and has not become operational. CBP will proceed to validate the results during FY 2018. Validation of the results include CBP analysts or subject matter experts reviewing and determining whether the analytic results compare to past CBP findings, or provide additional recommendations for further review. Additional review of the analytics selections and in-depth determinations would be conducted for results outside of past CBP findings. Decisions about individuals or entities, normally referred to as Importers of Record, may be made during the validation phase in order to test the results of analytics as they are developed; any decisions would involve requests for examination or document review.

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<sup>156</sup> AD/CVD are additional duties determined by the U.S. Department of Commerce, which offset unfair low prices and foreign government subsidies on certain imported goods. CBP enforces approximately 300 AD/CVD orders on over 150 commodities.

<sup>157</sup> ATS is a decision support tool that compares traveler, cargo, and conveyance information against law enforcement, intelligence, and other enforcement data using risk-based targeting scenarios and assessments.

<sup>158</sup> ACE is a commercial trade processing system designed to automate border processing, enhance border security, and foster U.S. economic security through lawful international trade and travel.

<sup>159</sup> The "Entry" is filed when cargo reaches a port of entry, and provides the required information for CBP to make cargo release decisions, while the "Entry Summary" is filed within 10 business days of release and provides information for CBP to make duty and statistical calculations, and ensure that other requirements of law have been met.

The legal authorities for CBP's SOCRATES pilot include: 6 U.S.C. § 115(a)(1) and § 212(b)(2); 19 U.S.C. Chapter 4; 19 U.S.C. § 1592; 31 U.S.C. § 3729; 19 U.S.C. § 1481-1529; 19 U.S.C. § 1641; 31 U.S.C. § 7701(c); 19 CFR Part 24; and 19 CFR Part 149.3.

CBP is reviewing the compliance documentation for the use of SOCRATES as the reporting period for this report ended. In future Data Mining Reports, CBP will provide additional information on SOCRATES as it becomes operational.

To ensure proper loading of CBP data onto SOCRATES, CBP has started configuring four dedicated servers. The project is continuing the testing phase and CBP subject matter experts are ensuring the configuration is compatible with what JHU/APL needs to achieve optimal results. The next phase in the process for FY18 will be to ingest CBP entry data to include bill of lading, entry, entry summary, and manifest data. SOCRATES will analyze the data to characterize the shipping environments to better detect fraudulent commercial activity. CBP has identified a trade data analyst to work with JHU/APL mathematicians to use SOCRATES findings to identify anomalous shipments and/or irregular patterns of behavior that would lead a trade analyst to prompt an action for an incoming shipment or a summary review of a shipment previously released. CBP will continue to provide updates as SOCRATES advances towards operational status.

## G. Fraud Detection and National Security – Data System (FDNS-DS)/ATLAS

### 1. Program Description

Every year, USCIS receives nearly 8.7 million applications for immigration benefits or service requests. USCIS is committed to ensuring the integrity of the U.S. immigration system. An integral part of USCIS's delegated authority to adjudicate benefits, petitions, or requests, and to determine if individuals are eligible for benefit or services, is to conduct screenings (i.e., background, identity, and security checks) on forms filed with the agency. USCIS/FDNS developed the Fraud Detection and National Security – Data System (FDNS-DS)<sup>160</sup> to record, track, and manage the screening processes related to immigration applications, petitions, or requests with suspected or confirmed fraud, public safety, or national security concerns. FDNS also uses FDNS-DS to identify vulnerabilities that may compromise the integrity of the legal immigration system.

Traditionally, FDNS-DS performed case management and received information primarily through manual referrals of cases from USCIS adjudications staff to FDNS Officers. In 2014, FDNS further enhanced FDNS-DS with a screening module known as ATLAS to automate the screening and matching of biometric and biographic information against databases containing arrest records or documented national security or public safety concerns. Through ATLAS, information is screened through a predefined set of rules to determine whether the information provided by the individual or obtained through the required background, identity, and security checks presents a potential fraud, public safety, or national security concern. ATLAS produces System Generated Notifications (SGN) that automate the process of referring cases for FDNS Officers' manual review.

ATLAS's screening capability enhances the integrity of the immigration process and strengthens

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<sup>160</sup> The FDNS-DS Privacy Impact Assessment is available at: <http://www.dhs.gov/privacy-impact-assessments>. The FDNS System of Records Notice (DHS/USCIS-006, 77 Fed. Reg. 47411 (Aug. 8, 2012)) is available at: <https://www.gpo.gov/fdsys/pkg/FR-2012-08-08/html/2012-19337.htm>.

USCIS's obligations of the Immigration and Nationality Act (INA) through the following benefits:

- i. Reduces application cycle time by creating SGNs to preemptively notify FDNS Officers of suspected fraudulent or nefarious information before adjudicators begin reviewing application;
- ii. Increases consistency and timeliness for background and security check operations;
- iii. Ensures consistent process and procedures to operationalize screening enhancements; and
- iv. Integrates screening capabilities with USCIS case management systems.

## 2. Technology and Methodology

ATLAS is an enhanced screening platform that augments existing checks performed on immigration filings made to USCIS. The types of checks performed on immigration forms vary by the benefit/request type. In general, USCIS conducts background checks to obtain relevant information in order to render the appropriate adjudicative decision with respect to the benefit or service sought, identity checks to confirm the individual's identity and combat potential fraud, and security checks to identify potential threats to public safety or national security. Standard checks may include: biometric, fingerprint-based checks such as the FBI Fingerprint Check, DHS's IDENT Fingerprint Check<sup>161</sup>, Department of Defense Automated Biometric Identification System (ABIS) Fingerprint Check<sup>162</sup>; and biographic, name-based checks such as the FBI Name Check and TECS<sup>163</sup> Name Check.

USCIS uses several systems to support the requisite background, identity, and security checks, which are described in detail in various USCIS PIAs. As mentioned in those PIAs, USCIS adjudications staff must query multiple systems, in some cases manually. Through the development of ATLAS, the need to independently query each system is greatly reduced, thereby streamlining the screening process and limiting the privacy risks associated with using multiple systems. ATLAS interfaces with other systems in order to automate system checks and promotes consistent storage, retrieval, and analysis of screening results to enable FDNS to more timely and effectively detect and investigate fraud, public safety, and national security concerns.

Within FDNS-DS, ATLAS's automated, event-based screening is triggered when:

1. An individual presents him or herself to the agency (i.e., when USCIS receives an individual's application, such as for adjustment of status; when there is an update to an application; or when an applicant's 10-fingerprints are taken at an authorized biometric capture site as part of the form application process); or
2. Derogatory information is associated with the individual in one or more DHS systems.

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<sup>161</sup> The DHS/NPPD/PIA-002 Automated Biometric Identification System (IDENT) PIA is available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>162</sup> For certain benefit types in which the beneficiary has a higher likelihood of having previously been fingerprinted by the U.S. military, USCIS conducts checks against the Department of Defense's Automated Biometric Identification System, as described in the Customer Profile Management Service (CPMS) PIA. See DHS/USCIS/PIA-060 CPMS, available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>163</sup> The DHS/CBP/PIA-009 TECS System: CBP Primary and Secondary Processing (TECS) PIA is available at: <http://www.dhs.gov/privacy-impact-assessments>.

ATLAS receives information from the individual's form submission and from the biographic and biometric-based checks listed above. That information is screened through a predefined set of rules to determine whether the information provided by the individual or obtained through the required checks presents a potential fraud, public safety, or national security concern. The rules help standardize how information is analyzed and helps rapidly detect potential derogatory information that may indicate a risk to the nation, and/or ineligibility for a benefit being sought.

Screening through ATLAS automates the process of referring cases to FDNS for review. Certain events, such as when USCIS receives a benefit request form or the 10-print capture of an individual's fingerprints at a biometric capture center, trigger rules-based screening. If the benefit request form or biometric capture matches a rule, ATLAS produces an SGN, which is elevated in FDNS-DS for manual review. Once an SGN is produced, a specially trained FDNS Officer, known as a Gatekeeper, conducts a manual review of the SGN for validity, determines whether it is "actionable" or "inactionable," and, if "actionable," triages the SGN for further action. If an SGN is "actionable," it enters the formal FDNS-DS case management process. An SGN found to be "inactionable" may be closed without further action. The SGN itself is not considered derogatory. SGNs help FDNS Officers to detect potential threats earlier in the immigration benefit application process, to demonstrate the fidelity of the individual's biographic and biometric information, and to more efficiently identify discrepancies.

If FDNS determines an administrative investigation is necessary, FDNS conducts further checks to verify information prior to an adjudicative decision on the immigration benefit or service requested, to include resolving any potential fraud, public safety, or national security concerns. FDNS may perform administrative investigations or work with partner agencies, as appropriate, and ultimately produce findings to sufficiently inform adjudications.

ATLAS's capabilities enable its users to more easily identify individuals who are filing for immigration and naturalization benefits who may potentially be engaging in fraudulent behavior or pose a risk to public safety or national security. During the screening process, ATLAS analyzes the results of biographic and biometric checks, and applies rules against data received from multiple systems. ATLAS assists in confirming individuals' identities when individuals are potentially known by more than one identity by comparing the identity information provided by the individual with identity information in other systems checked against the background, identity, and security check process. As an example, ATLAS can determine if an individual has applied for benefits using multiple biographic identities or aliases, by matching fingerprints for the various identities. The results of this analysis may be produced and elevated in FDNS-DS in the form of an SGN.

ATLAS's capabilities do not alter the source data. All legal and policy controls around the source data remain in place.

### 3. Data Sources

The type of information collected depends on the specific context of a given case within FDNS-DS. Below is a list of systems, both internal and external, that pass applicant biographic and biometric information through ATLAS to fulfil screening requirements. Any rule-based detection of potential derogatory information will result in an SGN within FDNS-DS.

*U.S. Citizenship and Immigration Services (USCIS) Systems: National Benefit Center Process*

Workflow Repository (NPWR)<sup>164</sup> to facilitate screening on certain form types being processed through the National Benefit Center and Service Center Operations; Service Center Computer Linked Application Information Management System (SCCLAIMS);<sup>165</sup> Computer Linked Application Information Management System (CLAIMS 3);<sup>166</sup> CLAIMS 4;<sup>167</sup> USCIS Electronic Immigration System (ELIS);<sup>168</sup> National File Tracking System (NFTS)<sup>169</sup> to retrieve the physical locations of A-files; and, Customer Profile Management System (CPMS)<sup>170</sup> to retrieve data associated with biographic and biometric screening.

*Other Department of Homeland Security (DHS) Component System Interfaces:* IDENT<sup>171</sup> to retrieve data associated with biometric screening; CBP's TECS<sup>172</sup> system, to perform screening, including checks against the FBI, National Crime Information Center (NCIC); ATS-P<sup>173</sup> and UPAX; and DHS Email as a Service (EaaS) Simple Mail Transfer Protocol (SMTP)<sup>174</sup> server for email.

Additionally, FDNS Officers may manually query several internal and/or external databases or systems to obtain information that may be added to a case in FDNS-DS.

*Other DHS Component Systems Accessed (Manually):* AFI;<sup>175</sup> ADIS;<sup>176</sup> SEVIS;<sup>177</sup> ENFORCE<sup>178</sup> Alien Removal Module;

*External Sources Accessed (Manually):* Department of Labor, Department of State, Department of Defense, Social Security Administration (SSA) Electronic Verification of Vital Events (EVVE), Federal Aviation Administration websites, Intelligence and law enforcement communities, state and local government agencies; local, county, and state police information networks, state motor vehicle administration databases and websites, driver license retrieval websites, state bar associations, state comptrollers, state probation/parole boards or offices, county appraisal districts, and state sexual

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<sup>164</sup> NPWR is covered under DHS/USCIS/PIA-016 Benefits Processing of Applicants other than Petitions for Naturalization (CLAIMS 3).

<sup>165</sup> SCCLAIMS is a mirror copy of CLAIMS 3 data. As of the publishing date, ATLAS has migrated from SCCLAIMS to eCISCOR.

<sup>166</sup> The DHS/USCIS/PIA-016(a) CLAIMS 3 and Associated Systems PIAs are available at:

<http://www.dhs.gov/privacy-impact-assessments>.

<sup>167</sup> The DHS/USCIS/PIA-015 CLAIMS 4 PIA and subsequent updates are available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>168</sup> The DHS/USCIS/PIA-056 USCIS ELIS PIA is available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>169</sup> The DHS/USCIS/PIA-032 National File Tracking System (NFTS) PIA is available at:

<http://www.dhs.gov/privacy-impact-assessments>.

<sup>170</sup> The DHS/USCIS/PIA-060 Customer Profile Management Service PIA is available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>171</sup> The DHS/NPPD/PIA-002 Automated Biometric Identification System (IDENT) PIA is available at:

<http://www.dhs.gov/privacy-impact-assessments>.

<sup>172</sup> The DHS/CBP/PIA-009 TECS System: CBP Primary and Secondary Processing PIA is available at:

<http://www.dhs.gov/privacy-impact-assessments>.

<sup>173</sup> The DHS/CBP/PIA-006 Automated Targeting System (ATS) PIA is available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>174</sup> The DHS/ALL/PIA-012 E-mail Secure Gateway PIA and subsequent updates are available at:

<http://www.dhs.gov/privacy-impact-assessments>.

<sup>175</sup> The DHS/CBP/PIA-010 AFI PIA is available at: <http://www.dhs.gov/privacy-impact-assessments>.

<sup>176</sup> The DHS/CBP/PIA-24 Arrival and Departure Information System (ADIS) PIA is available at:

<http://www.dhs.gov/privacy-impact-assessments>.

<sup>177</sup> The DHS/ICE/PIA-001(b) Student and Exchange Visitor Information System II (SEVIS) PIA is available at:

<http://www.dhs.gov/privacy-impact-assessments>.

<sup>178</sup> The DHS/ICE/PIA-015 Enforcement Integrated Database (EID) PIA and subsequent updates are available at:

<http://www.dhs.gov/privacy-impact-assessments>.

predator websites.

## 4. Efficacy

The 2014-2018 DHS Strategic Plan states that DHS will enforce and administer the nation’s immigration laws by “ensuring that only eligible applicants receive immigration benefits through expanded use of biometrics, a strengthening of screening processes, improvements to fraud detection, increases in legal staffing to ensure due process, and enhancements of interagency information sharing.”<sup>179</sup> ATLAS is a platform that enhances the ability of USCIS FDNS to detect and investigate fraud, national security and public safety concerns, and intelligence threats in forms submitted to USCIS. ATLAS is capable of screening biometric and biographic information associated with forms submitted to USCIS automatically at intake, resolving identities when individuals use aliases.

In Fiscal Year 2017, ATLAS screened roughly 14 million combined immigration filing and biometric enrollments, resulting in 149,271 SGNs. As of May 2018, SGNs generated in FY2017 are related to 6,247 new immigration benefit fraud investigations and 3,161 new public safety investigations, of which 2,655 cases have findings of fraud. Also in Fiscal Year 2017, ATLAS generated 465 SGNs associated with national security concerns; and of those, 165 were referred to U.S. Immigration and Customs Enforcement.

Using ATLAS, application cycle times are greatly reduced, and FDNS Officers are alerted to potential concerns much earlier in the immigration process. For instance, in 2013, a subject was granted an immigration benefit. In 2017, the subject filed for another immigration benefit. ATLAS conducted the background checks and sent the subject’s information to CBP’s Automated Targeting System for recurrent vetting. That same day, ATLAS triggered a System Generated Notification (SGN) due to a record indicating the subject was a possible national security concern. An FDNS investigation via ATLAS link analysis also revealed that the subject had an alternate identity from a prior immigration filing. Additional investigation by ICE Homeland Security Investigation (HSI) attested to the subject having used multiple identities.

ATLAS uses rules-based tools to detect potential derogatory information against multiple system data, which can result in time-sensitive and critical detections. For example, in 2016, a subject entered the United States as a Syrian refugee. In 2017, the subject filed an Application to Register to Permanent Residence at a USCIS Lockbox. ATLAS automatically screened the subject’s information against TECS, and an SGN was triggered based on a watch list record noting the subject was as an “Armed and Dangerous” threat if entering the United States. A FDNS Immigration Officer triaged the SGN and confirmed the subject was a match to the watch list. Resulting collaboration between the FDNS and the FBI JTTF ended with an arrest and indictment of the subject in September 2017 for fraud and misuse of a visa, in violation of 18 U.S.C. § 1546.

## 5. Laws and Regulations

The *Immigration and Nationality Act of 1952*, as amended (INA), section 103 (8 U.S.C. § 1103) charges the DHS Secretary with the duty of administering and enforcing all laws relating to the immigration and naturalization of aliens, including discovering incidents of immigration fraud, and for ensuring that individuals who pose national security threats are not granted immigration

<sup>179</sup> Department of Homeland Security. “Fiscal Years 2014 – 2018 Strategic Plan,” is available at: <https://www.dhs.gov/sites/default/files/publications/FY14-18%20Strategic%20Plan.PDF>.

benefits. The DHS Secretary has delegated to the USCIS Director pursuant to Homeland Security Delegation No. 0150.1, the following duties: (1) to administer the immigration laws (as defined in section 101(a)(17) of the INA); (2) investigate alleged civil and criminal violations of the immigration laws, including but not limited to, alleged fraud with respect to applications or determinations within the BCIS [predecessor to USCIS], and make recommendations for prosecutions, or other appropriate action when deemed advisable.

USCIS has a statutory obligation to ensure that an applicant and or beneficiary is admissible in accordance with section 245(a)(2) of the INA.<sup>180</sup> Section 245(a)(2) requires that an alien must be admissible to the United States in order to adjust status to that of a lawful permanent resident.

Section 212 of the INA<sup>181</sup> lists several categories of inadmissible aliens. An applicant may be found inadmissible if he or she has been convicted of (or admits to having committed) an offense that constitutes a ‘crimes involving moral turpitude,’<sup>182</sup> or has engaged in or is suspected of engaging in terrorist activities.<sup>183</sup> Similarly, section 237 of the INA<sup>184</sup> sets forth the grounds by which an alien can be determined to be removable or deportable, including a conviction for a crime involving moral turpitude<sup>185</sup> or security and related grounds.<sup>186</sup>

## 6. Privacy Impact and Privacy Protections

FDNS aims to enable effective identification of threats to national security and public safety, detection and combating immigration benefit fraud, and removal of systematic and other vulnerabilities, while respecting individuals’ privacy and promoting transparency of FDNS operations. In May 2016, FDNS updated and re-issued its PIA for the FDNS-DS system<sup>187</sup> to provide public notice of the development of its screening platform, ATLAS, and to provide transparency into the core capabilities planned to be integrated with ATLAS. ATLAS was designed to allow FDNS to optimize the processing of information for the purposes authorized in the INA, while minimizing privacy risks.

FDNS has a vested interest and responsibility to maintain the most accurate data possible since the information could be used in support of an adjudicative decision or in support of criminal investigations undertaken by law enforcement partners. FDNS Officers rely on multiple sources to confirm the veracity of the data and, if discrepancies are uncovered, will take necessary steps to correct inaccuracies. FDNS Officers compare information obtained during the screening and administrative investigation processes with information provided directly by the individual (applicant or petitioner) in the underlying benefit request form or in response to Requests for Evidence or Notices to Appear, to ensure information is matched to the correct individual, as well as to ensure integrity of the data. In the event FDNS Officers learn that information contained within other systems is not accurate, the Officer will notify appropriate individuals within the USCIS Records Office or the federal agency owning the data, who will facilitate any necessary notifications and changes.

ATLAS does not collect information directly from individuals. Rather, ATLAS receives

<sup>180</sup> INA § 245(a)(2), 8 U.S.C. § 1255, (“Adjustment of status of non-immigrant to that of person admitted for permanent residence”).

<sup>181</sup> *Id.* at § 212. 8 U.S.C. § 1255 (“Inadmissible aliens”).

<sup>182</sup> *Id.* at § 212(a)(2), 8 U.S.C. § 1182(a)(2) (“Criminal and related grounds”).

<sup>183</sup> *Id.* at § 212(a)(3), 8 U.S.C. § 1182(a)(3) (“ Security and related grounds”).

<sup>184</sup> *Id.* at § 237, 8 U.S.C. § 1227 (“General classes of deportable aliens.”).

<sup>185</sup> *Id.* at § 237(a)(2), 8 U.S.C. §1227(a)(2) (“Criminal offense”).

<sup>186</sup> *Id.* at § 237(a)(4), 8 U.S.C. §1227(a)(4) (“Security and related grounds”).

<sup>187</sup> The DHS/USCIS/PIA-013(a) FDNS PIA update is available at: <http://www.dhs.gov/privacy-impact-assessments>.

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information from the individual's form submission and from the associated biographic and biometric-based background checks, which includes information from other DHS and/or USCIS systems. Immigration regulations (8 C.F.R. § 103.2(b)(16)) require that individuals be advised of any derogatory information and be given a chance to rebut it, with certain exceptions.

Individuals have the opportunity to provide information directly to USCIS throughout the adjudication process in support of their requests or filings. This may occur through interviews, Requests for Evidence, Notices to Appear, or in the form of a Notice of Intent to Deny.

ATLAS's rules-based screening approach is tailored to provide information to FDNS Officers relevant to potential fraud, public safety, and national security threats, and the mere presence of an SGN does not indicate derogatory information about the individual. The SGN process also provides for a layer of human review to confirm SGNs are actionable prior to routing them for further case management activity. FDNS continually monitors and refines rules based on appropriate metrics. FDNS also continually tunes the rules to narrow the scope of information provided to FDNS Officers. Rigorous quality control and assurance procedures are used to adjust rules as necessary to reduce the potential for false positives. The rules help standardize how information is analyzed and help to detect patterns, trends, and risks that are not easily apparent from the form submissions themselves.

FDNS-DS maintains strict access controls so that only FDNS-DS users with a role in investigating cases for potential fraud, public safety, and national security concerns have access to raw data retrieved as part of the screening process. ATLAS interfaces with other systems to help streamline the processes that FDNS-DS users currently perform manually, and its capabilities are designed to assist FDNS Officers in obtaining information needed to confirm an individual's eligibility for the benefit or request sought while preserving the integrity of the legal immigration system. The output to other case management systems is reasonably tailored to provide adjudications staff with information relevant to making a determination on the benefit or request sought.

In order to reduce the risk of new data being incorporated into FDNS that has not been reviewed for privacy and legal concerns, multiple layers of privacy and legal review have been built into FDNS's processes. Additionally, FDNS must submit a PTA and receive approval from the DHS Privacy Office before adding any new data sources.

Because FDNS-DS contains sensitive PII related to possible immigration benefit fraud and national security concerns, DHS has exempted FDNS from the access and amendment provisions of the Privacy Act of 1974, pursuant to 5 U.S.C. § 552a(k)(2).

Notwithstanding the applicable exemptions, USCIS reviews all such requests on a case-by-case basis. When such a request is made, and access would not appear to interfere with or adversely affect the national or homeland security of the United States or activities related to any investigatory material contained within this system, the applicable exemption may be waived at the discretion of USCIS, and in accordance with procedures and points of contact published in the applicable SORNs.

## IV. CONCLUSIONS

The DHS Privacy Office is pleased to provide the Congress its twelfth comprehensive report on DHS data mining activities. The Congress has authorized the Department to engage in data mining in furtherance of the DHS mission while protecting privacy. The Privacy Office has reviewed the

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programs described in this report, using the compliance documentation process it requires for all DHS programs and systems to ensure that necessary privacy protections have been implemented. The DHS Privacy Office remains vigilant in its oversight of all Department programs and systems, including those that involve data mining.

## V. APPENDIX

Acronym List	
ABIS	Department of Defense Automated Biometric Identification System
ACAS	Air Cargo Advance Screening
ACE	Automated Commercial Environment
ACS	Automated Commercial System
ADIS	Arrival and Departure Information System
AES	Automated Export System
AFI	Analytical Framework for Intelligence
AFSP	Alien Flight Student Program
AMS	Automated Manifest System
APIS	Advance Passenger Information System
ATO	Authorization to Operate
ATS	Automated Targeting System
ATS-L	Automated Targeting System—Land Module
ATS-N	Automated Targeting System—Inbound Module
ATS-P	Automated Targeting System—Passenger
ATS-UPAX	Automated Targeting System—Unified Passenger Module
BCI	Border Crossing Information
BSA	Bank Secrecy Act
CBP	U.S. Customs and Border Protection
CCD	Consolidated Consular Database
CEI	Common Entity Index
CMAA	Customs Mutual Assistance Agreement
CMIR	The Report of International Transportation of Currency or Monetary Instruments Report
COTP	Captains of the Port
CTAC	Commercial Targeting and Analysis Center
DARTTS	Data Analysis and Research for Trade Transparency System
DHS	U.S. Department of Homeland Security
DMV	Department of Motor Vehicles
DOJ	U.S. Department of Justice
DoS	U.S. Department of State
EBSVERA	Enhanced Border Security and Visa Entry Reform Act of 2002
EEI	Electronic Export Information
ENFORCE	ICE Enforcement Case Management System / Enforcement Integrated Database
ESTA	Electronic System for Travel Authorization
EVUS	Electronic Visa Update System
FALCON-SA	FALCON Search & Analysis
FBI	Federal Bureau of Investigation
FDNS	Fraud Detection and National Security Directorate

Acronym List	
FDNS-DS	Fraud Detection and National Security – Data System
FinCEN	Department of the Treasury Financial Crimes Enforcement Network
FIPPs	Fair Information Practice Principles
FISMA	Federal Information Security Management Act
FOIA	Freedom of Information Act
FOUO	For Official Use Only
HSI	ICE Homeland Security Investigations
I&A	DHS Office of Intelligence and Analysis
ICE	U.S. Immigration and Customs Enforcement
IDENT	Automated Biometric Identification System
IFS	Intelligence Fusion System
INA	Immigration and Nationality Act
IOC	Interagency Operations Center
IRTPA	Intelligence Reform and Terrorism Prevention Act of 2004
ISAA	Information Sharing and Access Agreement
IT	Information Technology
LES	Law Enforcement Sensitive
MOA	Memorandum of Agreement
MSB	Money Services Business
NARA	National Archives and Records Administration
NCIC	National Crime Information Center
NIIS	Non-immigrant Information System
NTC	National Targeting Center
NTC-C	National Targeting Center-Cargo
OBIM	Office of Biometric Identity Management
OMB	Office of Management and Budget
PCR	Privacy Compliance Review
PIA	Privacy Impact Assessment
PII	Personally Identifiable Information
PNR	Passenger Name Record
PPOC	Privacy Point of Contact
PTA	Privacy Threshold Analysis
RAPS	Refugee, Asylum, and Parole System
RFI	Request for Information
SAFE Port Act	Security and Accountability for Every Port Act
SANS	Ship Arrival Notification System
SAVI	Suspect and Violator Indices
SBU	Sensitive But Unclassified
SDN	Specially Designated National
SELC	System Engineering Life Cycle
SEVIS	Student and Exchange Visitor Information System
SGN	System Generated Notification
SORN	System of Records Notice

Acronym List	
SSN	Social Security number
SSI	Sensitive Security Information
TRIP	Traveler Redress Inquiry Program
TSA	Transportation Security Administration
TSC	FBI Terrorist Screening Center
TSDB	Terrorist Screening Database
TTAR	Trade Transparency Analysis and Research System
TTU	ICE Homeland Security Investigations Trade Transparency Unit
USA PATRIOT Act	Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act
U.S.	United States
U.S.C.	United States Code
USCIS	United States Citizenship and Immigration Services
USCG	United States Coast Guard
VSPTS-Net	Visa Security Program Tracking System
VWP	Visa Waiver Program