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Capability Analysis Study Plan for Biometric Entry-Exit



Sponsoring Organization: CBP, Office of Field Operations

Sponsoring Organization Primary Point of Contact: (b)(6) (b)(7)(c)

PPAE, Executive Director, (b)(6) (b)(7)(c)

Sponsoring Organization Secondary Point of Contact: (b)(6) (b)(7)(c)

PPAE, Executive Director, (b)(6) (b)(7)(c)

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Executive Summary

This Capability Analysis Study Plan (CASP) outlines the approach to be used by U.S. Customs and Border Protection (CBP) in assessing, identifying, validating, and documenting existing capabilities and gaps with respect to CBP's mission and ability to biographically and biometrically confirm the departure of individuals exiting the United States. Further, this CASP will assess CBP's abilities to collect biometric data at entry into the United States that will be used to confirm the individual's identity upon departure.

This analysis is being undertaken in response to a congressional appropriation of \$1 billion over a period of up to 10 years for the implementation of a biometric entry and exit approach across all modes of travel. CBP is the designated DHS component that will ultimately develop and deploy a biometric entry-exit system where all travelers requiring collection of biometrics on entry will have biometrics collected on exit for all travel modalities: air, land, and sea. Additionally, this analysis will evaluate CBP and DHS-wide efforts to understand how various DHS components biographically and biometrically verify and document the movement of individuals encountered across all DHS mission operations and identify potential areas of coordination and collaboration.

As part of the planning in administering the \$1 billion, CBP is working to establish a biometric entry-exit program to begin implementing a major subset of requirements that support DHS and CBP's mission needs. CBP has leveraged existing CBP and DHS studies and work activities in this area to develop the initial strategy and cost estimate documents that have been presented to CBP and DHS leadership for awareness and concurrence. The major outcome of this current study will be the development of a Capability Analysis Report (CAR). The CAR will document those capability gaps that will need to be remedied to meet the DHS mission need to improve traveler identification and verification through the deployment of state-of-the-art biometric technology together with increase personnel staffing and business process changes. The strategy includes assessing new biometric technologies using operational experiments at ports of entry while continuously enhancing or replacing current systems and upgrading infrastructure and transforming operations. This strategic direction will continue to be refined as CBP develops required acquisition-related documents.

CBP recommends that this biometric exit capability development effort fall under the DHS Screening functional area as currently defined and be aligned to the DHS Screening Portfolio team.

1 Study Purpose and Scope

1.1 Introduction

In September of 2014, DHS tasked U.S. Customs and Border Protection (CBP) through a Resource Allocation Decision (RAD) with leading a cross-component coordination effort to identify DHS Component biometric collection device requirements for the 2017 – 2021 fiscal years. CBP coordinated with Immigration and Customs Enforcement (ICE), the Transportation Security Administration (TSA), United States Citizenship and Immigration Services (USCIS), United States Coast Guard (USCG), DHS National Protection Programs Directorate (NPPD), DHS Office of the Chief Security Officer (OCSO), the Federal Emergency Management Agency (FEMA), the United States Secret Service (USSS) and the DHS Science and Technology Directorate (S&T). The analysis conducted to date, based on data gathered from each component, validates that components share the need to uniquely identify, verify and record individuals encountered during mission operations.

In response to DHS' direction, CBP is working to establish a biometric entry-exit program to begin implementing a major subset of requirements that support DHS and CBP's mission needs. CBP will ultimately develop and deploy a full biometric exit system where all travelers requiring collection of biometrics on entry will have biometrics collected on exit in all travel modalities: air, land, and sea. A comprehensive biometric entry-exit program will enhance the integrity of the immigration system by providing assurance of traveler identity on departure matched with arrival. CBP will use one or more biometric modalities - such as fingerprint, facial, or iris images - to verify identity. This ultimate end state will require significant changes to infrastructure; additional operational support; and the development of additional entry/exit biometric and biographic capabilities. Although current legislation focuses on biometric exit, improvements must be made to the end-to-end process, from entry to exit, to be most effective.

The FY 2016 Consolidated Appropriations Act (P.L. 114-113) authorized up to \$1 billion over a period of up to 10 years for the implementation of a biometric entry-exit program across all modes of travel. The cost of realizing a full biographic and biometric entry-exit system over the next six years will exceed the approximately \$1 billion in USCIS-collected fees that constitutes current funding levels. The initial efforts will focus on solution development and technology deployments in the air environment, with future plans to design and deploy solutions for the land and sea environments.

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1.2 Study Purpose & Scope

The purpose of the study is to assess CBP's future requirements with current capabilities, and identify gaps associated with the biometric processing of individuals entering and exiting the United States by air, land, and sea. Since the transition of the biometric exit portion of the US-VISIT program to CBP in 2013, CBP has developed a strategy that will apply state-of-the-art biometric technology supported by needed staffing and enhanced processes to improve traveler identification and verification. The strategy includes assessing new biometric technologies using operational experiments at ports of entry while continuously enhancing or replacing current systems, upgrading infrastructure and transforming operations.

The goals related to this strategy, depicted in Figure 1, include: (1) reduce biographic gaps by expanding biographic collection, (2) conduct targeted biometric operations, and (3) transform entry/exit operational processes.

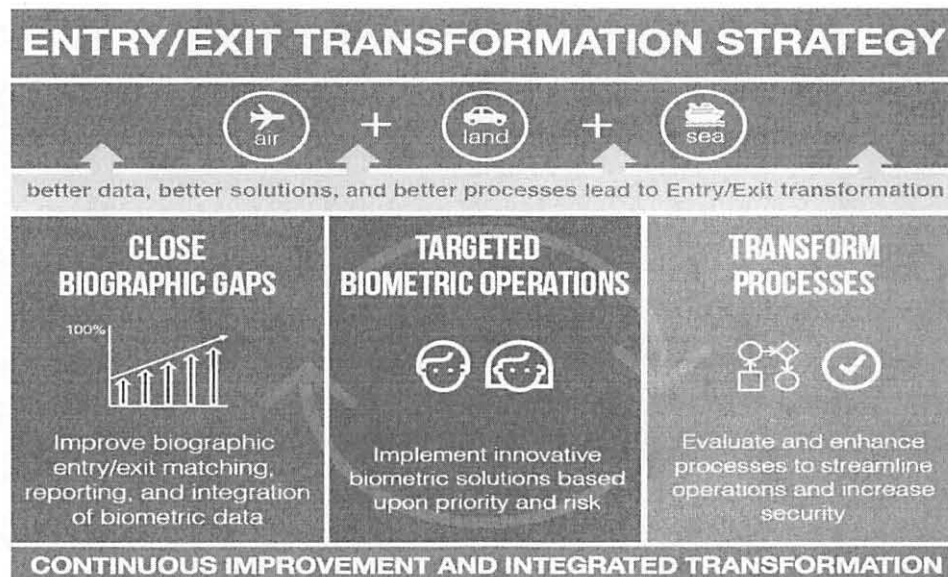


Figure 1- Entry/Exit Transformation StrategyCBP has already invested in research, development, and testing of several different technological solutions to verify US and foreign national travelers' identity using biometrics, as well as to identify operational and IT infrastructure requirements to support a broad technology-based solution. Much of this investment has been undertaken in the form of technology deployment experiments at various air and land ports of entry. In the near term, CBP will continue to research, develop, and deploy solutions for the air environment,

land and sea environment. CBP will also begin establishment of an interconnected and fully functioning enterprise system, upgrade its technical infrastructure, and dedicate program management and related resources to support operations.

This CASP will result in development of the Capability Analysis Report (CAR) which will document current capability gaps in identifying and verifying travelers. The CAR will provide a detailed capability gap analysis for air, land, and sea environments aligned to the Doctrine, Organizations, Training, Materiel, Leadership, Personnel, and Facilities, plus Regulations/ Grants/Standards (DOTMLPF+R/G/S). The timeframe for the capabilities addressed in this report will span the next fifteen years (2016-2031).

2 Methodology

The study will analyze current capabilities in biometrically identifying and verifying travelers and CBP's ability to meet the congressional requirement to implement this capability across all modes of entering and exiting the United States.

2.1 Proposed Methodology

Many of the activities to document CBP's current capabilities and existing gaps were initiated as part of earlier DHS activities that included designating CBP to lead a cross-component coordination effort to identify DHS Component biometric device requirements for the 2017 – 2021 fiscal years. Part of this analysis included identifying current capabilities and expected capability needs through FY 2021. Additional efforts undertaken by DHS and CBP have resulted in development of high-level strategic documents and capability studies that describe the gaps in the ability of current capabilities to address expected future requirements. This analysis will continue as a part of this current study and will be documented in the CAR.

2.2 Assumptions

- This study will document previously identified capabilities along with new ones that have developed since the last major study was completed.
- Review time to approve this CASP will be accelerated by CBP and DHS due to the short-time frames required to deploy technology to close identified capability gaps.

2.3 Constraints

- The aggressive schedule to deploy biometric verification beginning in FY2018 that was committed to Congress by DHS leadership does not support spending the weeks and monthly normally required by similar studies.

3 Applicable Portfolio

Alignment to the DHS enterprise architecture functional areas: Recommend the biometric exit capability development effort fall under the DHS Screening functional area as defined within the DHS Functional Capabilities and Activities Catalog, Version 2.0, dated June 2014.

Proposed portfolio team: Recommend the biometric exit capability development effort be aligned to the DHS Screening Portfolio team.

4 Participating Organizations

This section describes the organizations that are members of the JRC on Biometrics that have a direct interest in assuring the success of a biometric entry-exit program to enhance and support their own missions and objectives. Capability gap findings will be shared with stakeholders as appropriate. The JRC will continue to receive feedback and have input into the program.

Component	Interest in Enhancing Biometrics Capabilities
CBP	<ul style="list-style-type: none">• Identify <i>in-scope non-citizens entering and departing the U.S. per day</i> by air, land, and sea• Identify security threats from biometric watch lists• Search and record subject encounters between the ports of entry from approximately 1500 subjects per day based on current apprehensions• Capture facial recognition quality photos• Collects biometrics using mobile technology during remote operations
ICE	<ul style="list-style-type: none">• Use expanded biometric data to collect, search and enroll approximately 1750 known or suspected aliens encountered per day during enforcement or homeland security investigations• Use expanded facial recognition quality photos for subject searches
TSA	<ul style="list-style-type: none">• Use expanded biometric data sets to support processing of approximately 6,000 applicants per day for credentialing programs
USCIS	<ul style="list-style-type: none">• Use expanded biometric data sets for a criminal background check to determine immigration benefit eligibility from approximately 12,000 subjects per day and an average of 100 subjects per day during refugee and international operations• Verify identity of up to 5,000 immigration benefit applicants per day during the interview process

USCG	<ul style="list-style-type: none">• Use expanded data sets to support mobile search and enrollment of approximately 40 alien migrants interdicted at sea per day in Southern Florida and the Mona Pass• Verify the identity of Transportation Worker Identification Credential holders• Perform mobile identity verification of crew onboard high risk tankers at sea ports
USSS	<ul style="list-style-type: none">• Enhance capabilities to collect and save enhanced biometrics, fingerprints, palm prints, facial images and scars, marks and tattoos (SMT) during investigations for search and inclusion in the FBI NGI from approximately 75-100 subjects per day• Capture photographs that are facial recognition quality
NPPD	<ul style="list-style-type: none">• Provide Match, Store, Share, and Analyze biometric identity services to all of DHS, the Interagency, and other DHS mission partners• Provide enhanced biometric search capability beyond two to ten fingerprints• Provide additional biometric store services for face and iris
FEMA	<ul style="list-style-type: none">• Collect enhanced biometrics from applicants at geographic regional offices and disaster locations to support disaster operations and use to vet personnel hiring and facility access
OCSO	<ul style="list-style-type: none">• Collect enhanced biometrics to enroll DHS employees and contractors, conduct law enforcement checks for background investigations, and issue a Personal Identity Verification credential
I&A	<ul style="list-style-type: none">• Use expanded data sets to support the analysis with other data sets to enhance the identification and dissemination of counterterrorism and other national security information to Homeland Security Enterprise stakeholders
CIO	<ul style="list-style-type: none">• Ensure that DHS IT systems and infrastructure can support the increased transmission of biometric data and provide identify verification services that does not impact normal business operations
Privacy	<ul style="list-style-type: none">• Ensure that biometric data collected and used to verify traveler identity is handled, stored, and removed per privacy requirements

Table 1- DHS Biometric Capability Stakeholders

5 Plan of Action and Milestones

5.1 Key Study Objectives

The biometric entry-exit approach is designed to deliver a capability to meet the objectives shown in Figure 1 in Section 1.2. This study will result in a CAR that validates an initial set of identified gaps along with documenting other gaps in CBP's ability to biographically and biometrically match an individual's entry into the U.S. to their departure from the U.S. The CAR will contain a detailed capability gap analysis for all transportation environments that will be aligned to the Doctrine, Organization, Training, Materiel, Leadership Personnel, Facilities + Regulations/Grants/Standards (DOTMLPF+R/G/S) framework.

5.2 Schedule and Milestones

Due to DHS and CBP leadership requirements to deploy a biometric exit solution at airports beginning in FY2018, CBP has started developing all required acquisition and SELC-related documents. This CASP will be submitted to the CBP JRC liaison in early September 2016 with a target for developing and submitting the CAR for approval in September 2016. In parallel, CBP is drafting the Mission Needs Statement, Concept of Operations, and Operational Requirements Document with planned submission before the end of calendar year 2016.

6 Sponsor

U.S. Customs and Border Protection is the sponsoring organization for this study.

The Point of Contact is (b)(6) (b)(7)(c) Executive Director, Planning, Program Analysis & Evaluation, Office of Field Operations, U.S. Customs and Border Protection, (b)(6) (b)(7)(c) (b)(6) (b)(7)(c)

7 CASP Checklist

Capability Analysis Study Plan (CASP) Checklist			
Item	Criteria Importance	Criteria	Assessment (Met/Not Met)
1	CRITICAL	Is the lead Sponsor organization POC, including name and contact information provided?	
2	NON CRITICAL	Does the executive summary contain necessary salient points?	
3	CRITICAL	Is the topic of study and boundaries/limitations sufficiently explained?	
4	CRITICAL	Is the proposed methodology, including the sequence of major activities, the associated time frames, assumptions, constraints, and intended outputs/products sufficiently addressed?	
5	CRITICAL	Are the proposed capability topics aligned to the enterprise architecture functional areas?	
6	CRITICAL	Is an appropriate Portfolio Team proposed for designation?	
7	CRITICAL	Are Components and other organizations with equities in the study included?	
8	CRITICAL	Are key study objectives clearly identified and aligned to key milestones in the methodology?	

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