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</table>
# Table of Contents

1. Introduction .................................................................................. 1
   1.1 Purpose .................................................................................. 1
   1.2 Background ............................................................................ 1

2. Internet Connectivity ...................................................................... 1
   2.1 Networking ............................................................................ 1
      2.1.1 Network connection requirements .................................... 1
      2.1.2 [b][7][E] ........................................................................ 1
      2.1.3 [b][7][E] ........................................................................ 1
      2.1.4 [b][7][E] ........................................................................ 1
   2.2 Testing Region ......................................................................... 1
      2.2.1 [b][7][E] ........................................................................ 1
      2.2.2 URL ............................................................................... 1
      2.2.3 Project Test Plan ............................................................... 2
      2.2.4 TVS in a Box ................................................................... 2

3. Interface Overview .......................................................................... 2
   3.1 [b][7][E] .............................................................................. 2
      3.1.1 Login [b][7][E] ................................................................. 3
      3.1.2 Login Request Message Elements ..................................... 3
      3.1.3 Login Response Message Elements .................................. 3
      3.1.4 Authorization Header ....................................................... 4
      3.1.5 Refresh Token [b][7][E] .................................................... 4
      3.1.6 Refresh Token Request Message Elements ....................... 4
      3.1.7 Refresh Token Response Message Elements ..................... 4
      3.1.8 Change Password [b][7][E] .............................................. 5
      3.1.9 Change Password Request Message Elements ................ 5
      3.1.10 Change Password Response Message Elements ............. 5
   3.2 Identify Service ......................................................................... 5
      3.2.1 Identify [b][7][E] ............................................................. 6
      3.2.2 Encounter Types .............................................................. 6
      3.2.3 Identify Request Message Elements .................................. 7
      3.2.4 Identify Response Message Elements ............................... 7
   3.3 User Authentication ................................................................... 8

4. Photo Specifications ....................................................................... 8

5. Assumptions ................................................................................. 8

6. Request Log-in ID ....................................................................... 8

7. URL ............................................................................................. 8

8. Contact Information ...................................................................... 8

9. Acronyms ..................................................................................... 8

10. Appendix ..................................................................................... 10
    10.1 Network Testing Examples ................................................... 10
        10.1.1 [b][7][E] Sample Response Screenshot ............................. 10
        10.1.2 Sample Complete Response .......................................... 10
Table of Figures

Figure 1: Cloud-Based Authentication Service........................................................................................................3
Figure 2: Cloud-Based Identify Service ..................................................................................................................6
Figure 3: Sample [D](7)(E) Test Response ..............................................................................................................10
1. Introduction

1.1 Purpose

The purpose of this document is to provide the interface specifications between the U.S. Customs and Border Protection (CBP) Traveler Verification Service (TVS) and Commercial Airline/Cruise line Operators supporting the Biometric Air Exit and Sea Entry pilot. CBP Office of Information and Technology (OIT) will work closely with each airline/cruise line in developing, testing, and implementing software during the pilot phase.

1.2 Background

TVS is the next transitional step towards deployment of reliable and repeatable biometric verification capabilities in the air exit/entry and sea exit/entry environment. TVS is intended to operationalize its recent predecessor, Atlanta Pilot. The Departure Information Systems Test began on June 15, 2016 at the Atlanta Hartsfield-Jackson International Airport, in cooperation with Delta Airlines, a major U.S. carrier. A CBP manned camera and tablet computer were placed between Delta's boarding pass scanner and the aircraft. As travelers checked in for their flight, all previously provided or captured photographs were assembled into a downloadable file that was pushed to the tablet prior to boarding. As travelers passed through the boarding area, they stopped at the camera while a photograph was captured. The live photographs were compared to the downloaded gallery of expected travelers to determine if CBP systems could accurately match live photographs to those of the same traveler that were previously acquired by CBP.

The objective of TVS is to further the pilot to experiment and establish a Reference Implementation model where the airline or cruise line provides the traveler biometric and biographic data to CBP for biometric verification of the traveler.

2. Internet Connectivity

2.1 Networking

2.1.1 Network connection requirements

TVS will be publicly available through the internet. TVS will not require calling systems to connect to the CBP, DHS, or other U.S. government network.

2.1.2 

2.1.3 

2.1.4 

2.2 Testing Region

2.2.1 

TVS has a test region for technical certification. Technical specifications for this connection are outlined in this document.

2.2.2 URL

Use the following URL for the test region:

epic.org
2.2.3 Project Test Plan

Airlines and Cruise lines should coordinate with CBP at the following points:

1. Prior to development
   a. Establish a schedule for development, testing, production deployment, and operations date range
   b. Provide airport, gates, flights
   c. Provide high-level solution details
   d. Verify internet connectivity to TVS
   e. Provision security credentials to access the TVS test region

2. During development
   a. Resolve technical issues
   b. Address technical questions
      i. Networking test

3. Prior to integration testing
   a. Create test data
      i. Photos
      ii. Ticket numbers (i.e., UIDs)

2.2.4 TVS in a Box

TVS also has a virtual instance of the service which can be used for development, education, and/or testing. The URL for the virtual instance will be made available in the near future. Technical specifications for this connection are outlined in the TVS in a Box Guide document.

3. Interface Overview

CBP provides a TVS Web Service for the airlines/cruise lines to use for submission of photos of the travelers.
3.1.2 Login Request Message Elements

A query message shall include the following data elements for Login:

3.1.3 Login Response Message Elements
3.1.4 Authorization Header

After a successful login, the response will contain a

Please note the following:

3.1.5 Refresh Token Request Message Elements

A query message shall include the following data elements for Refresh Token:

3.1.6 Refresh Token Response Message Elements

A response message shall include the following data elements for Refresh Token:
3.1.8 Change Password

The `changePassword` allows an authenticated user to update their existing password to a new password.

3.1.9 Change Password Request Message Elements

A query message shall include the following data elements for `Change Password`:

3.1.10 Change Password Response Message Elements

A response message shall include the following data elements for `Change Password`:

3.2 Identify Service

The Identify Service performs biometric verification of a passenger’s identity.
3.2.2 Encounter Types

(b)(7)(E)
3.2.3 Identify Request Message Elements

A query message shall include the following data elements for Identify:

3.2.4 Identify Response Message Elements

A response message shall include the photo match result and the correlation ID for Identify.
3.3 User Authentication

For the pilot phase, CBP will register and grant access to users to the Service. Contact the POC listed in Section 6 below. Upon registration, the URL for the services will be provided.

4. Photo Specifications

5. Assumptions

- Airlines will capture and submit photos of internationally departing travelers.
- Cruise lines will capture and submit photos of inbound debarking travelers.
- Photos must meet specifications described in Section 4.

6. Request Log-in ID

To request a log-in ID, please submit a request to: [b](6)&[b](7)(C)

Include in the email:

- Airline/Cruise Line Name
- Port Name
- Device Description
- POC with email

7. URL

Use the following URL:

8. Contact Information

Send questions and comments related to this reference guide to [b](7)(E)

9. Acronyms

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<th>Description</th>
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<tr>
<td>ANSI</td>
<td>American National Standards Institute</td>
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<tr>
<td>Acronym</td>
<td>Full Form</td>
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<tr>
<td>---------</td>
<td>-----------</td>
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<tr>
<td>APIS</td>
<td>Advance Passenger Information System</td>
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<tr>
<td>CBP</td>
<td>Customs and Border Protection</td>
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<tr>
<td>FOUO</td>
<td>For Official Use Only</td>
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<td>International Air Transport Association</td>
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10. Appendix

10.1 Network Testing Examples

10.1.1 Sample Response Screenshot

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Figure 3: Sample Test Response

10.1.2 Sample Complete Response

(b)(7)(E)
(b) (7)(E)