Attached are the EDDIE 1.3 screenshots. Please let me know which labels you would like to see changed by the end of next week, so I can get them included in our production build.

Thanks.

Let me know if you have any questions
Agenda Project Overview & Scope
Current Process
Overall Concept and Goals
Program System Architecture
Research on Alternatives
ESC Summary
HSI CMB Decision Requested
HSI & OCIO request the project be approved to proceed to development.
Overview HSI, in coordination with OCIO, identified law enforcement (LE) requirements to develop an independent biometric application for collection and enrollment under the BITMAP program. The Joint Advance Identification Management Environment project is intended to be a cost-effective tool designed to allow foreign vetted law enforcement personnel the ability to submit type 14 biometric capture of an unknown subject in a remote environments outside of the DHS network. This project will require a modification to the current EID contract. OCIO has estimated the cost at $2,254,400 to build the system and software. Additionally $1,644,805 from FY2018 to FY 2021 for annual maintenance and software licenses is required. Funding has been secured from HSI’s International Operations Budget in FY 2017 to support this project for system development. Development and deployment of this process is expected to take 9-12 months after approval. This process will use existing ICE connections and systems to reduce cost and increase information collaboration across DHS.
Current Process

Email and Phone Call Based Process
Overview The Joint Advance Identification Management Environment has three main components to automate BITMAP submissions. These components are:

- Build and deploy software that is Windows and Android compliant for collection and creation of EFTs (Electronic Fingerprint Transmission Standard). This software will allow the use of better sensors and is device agnostic.
- The creation of an automated process that timely receives the EFTS and submits them to US Databases for search and enrollment. This will allow for an improved situational awareness to DHS, other Federal Law Enforcement, US Security Agencies, and State/Local Law Enforcement. A rapid response to our HSI Attaches will also allow the United States and our foreign partners to minimize threats.
- The added ability to timely support the program and provide management with detailed reports that support national security.
Overall Concept and Goals

The overall concept of the project is to deploy a combination of software and IT services that allow for submission of biometrics from vetted foreign law enforcement officers to identify subjects outside the borders of the United States. This project will allow HSI and our foreign counterparts to identify the following subjects before they reach the United States:

- Wanted subjects
- Known or Suspected Terrorists (KSTs)
- Subjects with criminal histories
- Aliens traveling on false or fraudulent travel documents
- Aliens who have an identity in a US Biometric Database

This project has the following goals:

- Ease of use at all user levels
- Flexible to meet mission needs
- Additional Benefits
- Cost effective
Ease of Use

The application will be designed for ease-of-use even by the occasional foreign law enforcement user. The collection software is designed to be usable offline and needs no direct connection. The software is designed to be operated in the foreign law enforcement users' native language but create the files in English to support enrollment in US-based databases. A one-way drop portal allows for the quick submission of the proper file type to the system without compromising the ICE network. This process replaces the current email-based process that cost ICE an estimated 3,166 labor hours in FY 2016 to submit and process over 19,000 submissions. Approximately 1,000 of these enrollments were duplicates that were submitted because a lack of quality control using email as a communication method. This cost ICE an estimated loss of 166 labor hours in processing these duplicate submissions. Additionally, an estimated 900 more labor hours have been expended with HSI coordinating the hand delivery of groups of files. For example, from the Panama Attaché Office to the site of collections in the Darien Gap is a 4-hour drive one-way.

The applications are planned to work with Windows and Android to support mission needs and various platforms.
Flexible to Meet Mission Needs

The project is designed to reduce user training and support to allow changes to locations in a host nation or expand to other nations as needed. This reduction in human labor allows HSI to expand the program without increasing the workload on the country Attaché and the ICE JIOC. Software will also allow for the scanning of paper based fingerprint cards. The BITMAP program’s average daily non duplicate submissions in 2016 were 49.32. During 4th Quarter FY 2015, DHS OBIM (Office of Biometric Identity Management) processed 310,280 submission daily. The technology has significant bandwidth that can be utilized with this proposed automation project. Under the current email based process the BITMAP program is in jeopardy of being unable to enter new nations, expand, and identify subjects that pose a threat the United States and our partner nations. The project is designed to automate the process by collecting, transmitting, and retaining the highest quality of data. The higher the quality of biometric enrollment in a system the better the chances are of an accurate identification under BITMAP and in the future. The current submission process can have a time delay of up to 60 hours from collection to response. This is primary because of the email based system with a human in the loop. The project would reduce the time involved between the submission till the HSI Attaché gets a response to less than 10 minutes. This is based of performance testing of the EAGLE and EDDIE projects that see an average transactions less that 2 minutes from submission to response for an ICE user.
Additional Benefits
ICE and DHS users will be able search and use these BITMAP submissions stored in EID from various IT products such as EAGLE, FALCON, and ICM. Currently the BITMAP submissions are only viewable using ID numbers searching IDENT and NCIC. This project will also update the biometric coding libraries for ICE. These commercial libraries have not been updated since the 2004 timeframe and do not support modern standards. This will allow for templateing IRIS images and facial recognition of Mug shots to support all submissions from EAGLE for these biometric modalities. Left and Right Profile collection would modernize the system to allow increased collection of subject booking photographs in EAGLE and the addition of SMT (Scar, Marks, and Tattoo) Photos. Modernizing the BITMAP process will allow increased collections on subjects that have criminal, gang associations, and immigration histories in other countries. If an alien travel to the United States it may shift the legal burden to the alien that they are not in violation of the INA when seeking admission, applying for an immigration benefit, or a visa to enter the United States. This could change the removal proceeding depending if a subject by prohibiting a subject from making a valid entry. Modernizing the BITMAP process will allow for the access to query tools of USCIS and CBP to be able to query more systems from EAGLE and EDDIE.
Overall Concept and Goals

Cost Effective

The project cost is offset by the investment saving to the agency in the categories of labor, software, and collection hardware. A labor saving to ICE is estimated to reduce of up to 4,000 labor hours per year or 2 full time FTEs at current submission enrollment rate of 18,000. As submissions increase additional FTE support would be required under the current process. Of the 110 SEEK devices we have deployed a cost an estimated $12,000 per unit with a 5 year refresh rate or $1,320,000. New Android based Biosled devices are available for $4,600 per device with a 3 year refreshment. Additionally ICE must purchase $411 per software license annually from the manufacture. This is estimated to cost $1,012,000 in devices and $226,050 in software over 5 years. Current Software to scan paper based fingerprint cards into EFTs cost $3,000 per license. The software LOE is $846,400. The annual maintenance of the complete program is quoted at cost is $331,500 per year in FY18 that includes the cost of maintaining the hardware and the automated process. Using software that is device agnostic means that equipment can be provided for less than $2,000 per setup. For 110 units over 5 years the estimated cost to ICE is $440,000 for equipment and total maintenance cost through FY 2021 of $1,428,805 with standard 5% increase per year. Additional saving could be realized based on only the Android or Windows device has to be replaced periodically and the IRIS and fingerprint sensor could be reused.
Cost Effective

As the BITMAP program expands it is estimated that $2,798,050 per 5 years is saved for every 110 devices. The cost of equipment could be lower to under $1,000 per unit in areas that using existing IT hardware. At the current amount of 110 collection devices the total five year cost of the software and automation to the agency is $5,496,805 with equipment and maintenance. For every additional units added to the program the cost reduces to offset this investment. If 220 total devices are deployed the saving to ICE over 5 years is estimated to be a total of $539,295. If 330 total devices are deployed the savings to ICE over 5 years is estimated to be a total of $3,337,345.

<table>
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<tr>
<th>Cost Over 5 Years</th>
<th>FTE</th>
<th>System Cost</th>
<th>Collection Equipment</th>
<th>Software</th>
<th>Total</th>
<th>Add 110 Users over 5 years (220 Total)</th>
<th>Add 220 Users over 5 years (330 Total)</th>
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<tr>
<td>Current</td>
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<td>$3,238,050</td>
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<td>Agency Cost</td>
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<td>Agency Savings</td>
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<td></td>
<td></td>
<td>Negative Cost</td>
<td>$539,295</td>
<td>$3,337,345</td>
</tr>
</tbody>
</table>
Research on Alternatives

Would require commercial software products that increase cost and limit functionality for the needs of the BITMAP program. Commercial software created by biometric companies limit the ability to change sensors and devices as they are device specific. Commercial software and collection equipment workflows and features have to be supported by a companies. May require additional funding to make quick small changes. Relying on systems outside of ICE and DHS for collections limits agency control. Other applications such as DoS PISCES and SRTP limit functionality of operations. Other applications may not be able to go to a nation that BITMAP can or be terminated with a country at anytime. Other application may not feed systems that HSI uses for analysis to identify threats and shifting trends.
SEEK II

Cost $12,000 per unit

Size of a desktop phone

Limited keyboard and screen functions

Time to set up, turn on and collect is approximately five minutes

Eight hours of battery life before the need to charge or replace

Software requires programming for specific country

Internet Browser is based in Windows XP and is difficult to update
Jumpkit

Cost $13,000 per unit

Size of a small suitcase

Time to set up, turn on and collect is approximately five minutes

Twelve hours of battery life before the need to charge or replace

Software requires programming for specific country
Current Mobile Biometric Platforms

Biosled

Cost: $4,600 per unit and annual software charge

Android Based

Size of just larger than a Samsung Smart Phone

Time to set up, turn on and collect is approximately five minutes

Approximately 30 collection attempts before recharge

Software requires programming for specific country

Internet Browser is Android Based and can access most current browser standards
Future Mobile Biometric Platforms

Sensor with any Device and ICE Offline
Software Sensors cost is under $1000 for fingerprint and IRIS Collection
Tablet of Smartphone cost is less than $1,000 per unit
Can work on Android or
Windows
Can use any device running Windows 7, 8, 10 or Android to collect and generate EFTS
Software can also support fingerprint card scanning with an approved Flatbed
ESC Summary

- Acquisition and Enterprise Architecture Decisions Requested
  No acquisition or enterprise architecture decisions requiring HSI ESC approval for the April 2012 meeting.

- Document Approval Requested
  No documentation requiring HSI ESC approval for the April 2012 meeting.

- Issues
  The ICE TECS Case Management Modernization (CM-M) Program does not have any issues requiring action from the HSI ESC for the April 2012 meeting.

- Next Steps
  Conduct Integrated Baseline Review (Q3, FY12)
  Conduct SLM Gate Reviews
  CDR (Q1, FY13)
  TIR (Q1, FY13)
  TRR (Q1, FY13)
  PRR (Q1, FY13)
  OTRR (Q1, FY13)
  Conduct IRB Gate Reviews
  Conduct ADE 2C (Q1, FY13)
  Conduct ADE 3 (Q2, FY13)
Questions?