

# Use of Mobile Biometric Devices in Border Patrol Operations



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# Introduction



- **A Quick History:**
  - Subjects encountered by Border Patrol Agents in the field have weak or absent identities and commonly misrepresent themselves upon initial inspection. Field interview techniques are timely and yield marginal results.
  - Once an identity is confirmed and the subject is arrested, they are transported to a local station in order to be processed and booked. This creates operational inefficiencies by removing an agent from his/her assigned area of responsibility for a significant period of time.
  - A need exists to biometrically identify and process subjects in a remote environment.

# Current Devices and Uses



- **Devices:**
  - Four Cross Match SEEK II devices deployed at Tucson, San Diego and Grand Forks Border Patrol Sectors
  - Each SEEK programmed with the e3Lite user interface and uses COTS Mission Oriented Biometric Software (MOBS) program for biometric capture
  - One Motion tablet w/Windows 7 at HQ
- **Users:**
  - Five users at each location were trained on the SEEK device, e3Lite interface and MOBS program
- **Use Cases:**
  - Checkpoint operations, transportation check operations, station intake (future), detainee management (future)

# General Characteristics (1)



- **Purpose:**
  - Collect biometrics in the field via remote device and identify subjects through the captured data
  - Cache collected data in interoperable format (future)
  - Remotely process subjects, synch to local system of record and biometrically search/enroll through common databases
- **Desired enrollment/identification capabilities:**
  - Enrollment: Remote, synch to local database
  - Identification:
    - ✦ Location: in metropolitan or rural areas – under all indoor and outdoor environments.
    - ✦ Processing time: Start to finish including enrollment, 5 minutes
    - ✦ Operation type: Habituated operator will complete all tasks with device and detained subject

# General Characteristics (2)



- **Database enrollment/identification:**
  - **Enrollment**
    - ✦ Biographic data, synch and enroll in EID database
    - ✦ Biometric data, synch and enroll in IDENT/IAFIS databases
    - ✦ Response time: 2 minutes once transaction has been submitted
    - ✦ Connectivity: WIFI, internal 3G/4G, LAN cable, remote access to CBP Network via VPN tunnel
  - **Identification**
    - ✦ Return enrollment number and FIN number to device from EID/IDENT upon completion
    - ✦ Return previous enrollments and identification to device; to include responses from IDENT, IAFIS, ABIS
    - ✦ Connectivity: WIFI, internal 3G/4G, LAN cable, remote access to CBP Network via VPN tunnel
    - ✦ Response requirements: 2 min once transaction is submitted

# Mobile Unit Description



- **Mobile Unit Data Captured:**
  - Fingerprints (10 rolled)
  - Photograph
  - Basic Biographic Information
  - Iris capture (future)
- **Form Factor / User Interface**
  - Box type device 4" x 8" x 4", built in fingerprint scanner, fixed focal length iris scanner with NIR and digital camera (current)
  - Tablet type device with built in camera and fingerprint scanner (sled), milSpec case for tablet and sled (Future).
  - Current devices programmed with the e3Lite user interface and use COTS Mission Oriented Biometric Software (MOBS) program for biometric capture
  - "Lite" User Interface used for minimal data pull and entry to create record in local database

# Data Exchange Requirements (Details)



- Fingerprints and facial images sent to government databases for searching against all galleries
  - Biographic information and unique identifier (CIV ID) sent along with transaction
- Collected data cached on device in interoperable format for later extraction and sharing (future)
- Facial image quality to allow facial recognition in other government databases
- Face and fingerprint image meet quality standards of ANSI/NIST-ITL with associated metadata to ensure traceability and filtering capabilities for later use (future)
- Images geo-tagged for metadata filtering (future)

# Lessons Learned



- **Current device requires multiple log-ins which frustrates users; need direct connect to network and single sign on**
- **Need the ability to capture biometrics offline and cache in a standard format for later extraction and use**
- **SEEK QWERTY keyboard and screen on current device is small; makes data entry tedious and time consuming**
- **SEEK daylight viewable screen is poor, both direct and indirect sunlight dissolve screen resolution**
- **Current tablet tested requires external keyboard for log-in**



# Future Plans



- Incorporate direct connect to DHS Network and single sign on for application access
- Capture and submit iris images to government databases
- Cache biometric data on device in standard format and make available for extraction and additional sharing
- Incorporate e3Lite user interface onto a tablet type device with biometric capabilities for additional use cases (TABB program w/DHS S&T)