Biometric Automated Toolset (BAT) and Handheld Interagency Identity Detection Equipment (HIIDE)

Overview for NIST XML & Mobile ID Workshop

Biometrics Task Force
19 September, 2007
**Function:** BAT collects fingerprints, iris scans, facial photos and biographical information of persons of interest into a searchable data base.

**Scope:** Over 2,000 systems deployed; 560,000+ biometrics enrollments

**Mission Threads:** Tactical Operations, Force Protection, Detainee Operations, Population Control, Base Access, IED Forensics Operations, Special Operations, and Local Hire Screening / Intelligence
Handheld Interagency Identity Detection Equipment (HIIDE)

HIIDE Characteristics:
- Lightweight (2lbs, 3 oz)
- Multimodal collection and matching device
- Interoperable with BAT for biometrics data exchange back to DoD biometrics Data Repository

• **Function**: HIIDE collects and matches fingerprints, iris images, facial photos and biographical contextual data of Persons of Interest against an internal database

• **Scope**: Planned total fielding of 6,664 devices to OIF, OEF, USMC, ISAF, and SOF; Future improvements include wireless, watchlist expansion, rolled print, improved search capabilities

• **Mission Threads**: Tactical Operations, Force Protection, Detainee Operations, Access Control, Special Operations, and Intelligence Operations
Requirements of Special Operations Community

Physical Design of Device

• Future mobile identification devices must be smaller, lighter, and faster
• Need to determine value of multimodal devices versus current reliance on fingerprints
  • If fingerprints are the best modality, are 4 prints sufficient?
  • What is the most effective platen size to achieve superior sample quality?

Performance

• Focused on identification of targets, not verification
  • Matches must be quick and accurate
  • Perform matches against entire authoritative database not just a watchlist
• Current systems architecture contains a web portal for managing matches
DoD Efforts to Fulfill Mobile ID Requirements

• DoD Mobile ID Requirements documentation being developed
  – JCIDS documentation (BAT CPD, SOID CDD, and Navy IDS)
  – Enterprise JUONS
  – JROCM Last Tactical Mile task

• Ongoing Architectural efforts will define Mobile ID capability in FOB, AOR/Corps/JFLCC, and Enterprise

• Development of system-level and operational metrics define success
  – System-level metrics: How are the systems performing in the field?
  – Operational metrics: Effectiveness of biometrics in meeting national strategic objectives

• Systems acquisition in progress:
  – Spiral Development of BAT and HIIDE Systems is ongoing
  – Potential development of PM Biometrics Family of Systems
Lessons Learned

• Current fielded mobile devices are working well and the Warfighter is pleased

• Need to define requirements upfront:
  – Purpose for the device (enroll vs. verify)
  – Level that mobile ID devices will be employed (individual, squad, company)
  – CONOPs are important to define use cases

• Small form factor system limitations:
  – Hardware, templates, and image quality affect the ability to populate and match within an internal database (watchlist)
  – Difficulty in synchronizing all mobile devices in an AOR

• Logistics/Lifecycle management

• Manage user expectations of the device

• Leaders must understand capability Portfolio Management to synchronize enterprise
Recommendations for Workshop

• Allow use of various sensor technologies to support Mobile ID requirements
• Standards/Profiles should be based on operational/performance capabilities
• Investigate interoperability/data sharing issues introduced with multiple “standards” for data collection
• Utilize use cases to identify and examine interoperability issues
• Provide a forum for all interested parties to demonstrate current state of technology & products
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BACK UP SLIDES
Improving Operational Capability

• Next Generation Enterprise Automated Biometric Identification System
  – Increases capacity and improves scalability
  – Decreases response time to user
  – Incorporates multi-modal biometrics capability for more accurate searches / matches

• Family of Systems development
  – Ruggedized, tactical biometrics systems and devices tailored for various mission sets
  – Fully interoperable with enterprise database and other systems

• DoD biometrics-enabled watchlist
  – Provides list of high-threat persons of interest available for searching on handheld devices, as well as from enterprise level
  – Interfaces with national watchlists
### Significant Operational Statistics

- 1.5M+ Automated Biometric Identification System entries
- 240,764 Matches
- 167 IED Latent Matches
- 193 Non-IED related latent matches

### Significant Intelligence Statistics

- 9,527 Terrorists on DoD Biometrics Watchlist
  - 1,153 Tier 1 (Detain if Encountered)
- Latent Prints Developed
  - 18,036 – Iraq
  - 4,169 – Afghanistan
- 9,001 Biometrics Intelligence Reports produced
- 1070 Insurgents put on Security Hold

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"Taking away the enemy’s anonymity is one of the most powerful joint force capabilities for the Long War."

**Admiral E. P. Giambastiani, VCJCS, 28 MAR 07**
# DoD Biometrics Strategy

**Optimize What We Have**
- Support and sustain legacy systems; increase capacity

**Improve the Existing Architecture**
- All Systems are interoperable and compatible

**Build Future Capability**
- Systems Programs of Record, Biometrics Policy, Data Sharing, POM build

**Support immediate needs while building for the future**

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Objective: Meet Immediate Warfighter Needs

Objective: Establish Future Enterprise