The Road from a Quick Reaction Capability to a Program of Record

DEPARTMENT OF DEFENSE
BIOMETRICS
PROJECT MANAGEMENT OFFICE

Presented By:
PM DoD Biometrics
and
TRADOC Capability Manager – Biometrics and Forensics
26 January 2011

US ARMY
PEO EIS
PEO ENTERPRISE INFORMATION SYSTEMS

Introduction

COL Ted Jennings
Project Manager
DoD Biometrics
Theodore.Jennings@us.army.mil

Agenda

- Introduction

- Force Modernization Proponent

- Product Areas

  - Biometrics Enabling Capability

  - Tactical Biometrics Systems

- Architecture

- Q&A

Force Modernization Proponent

COL Fred Washington
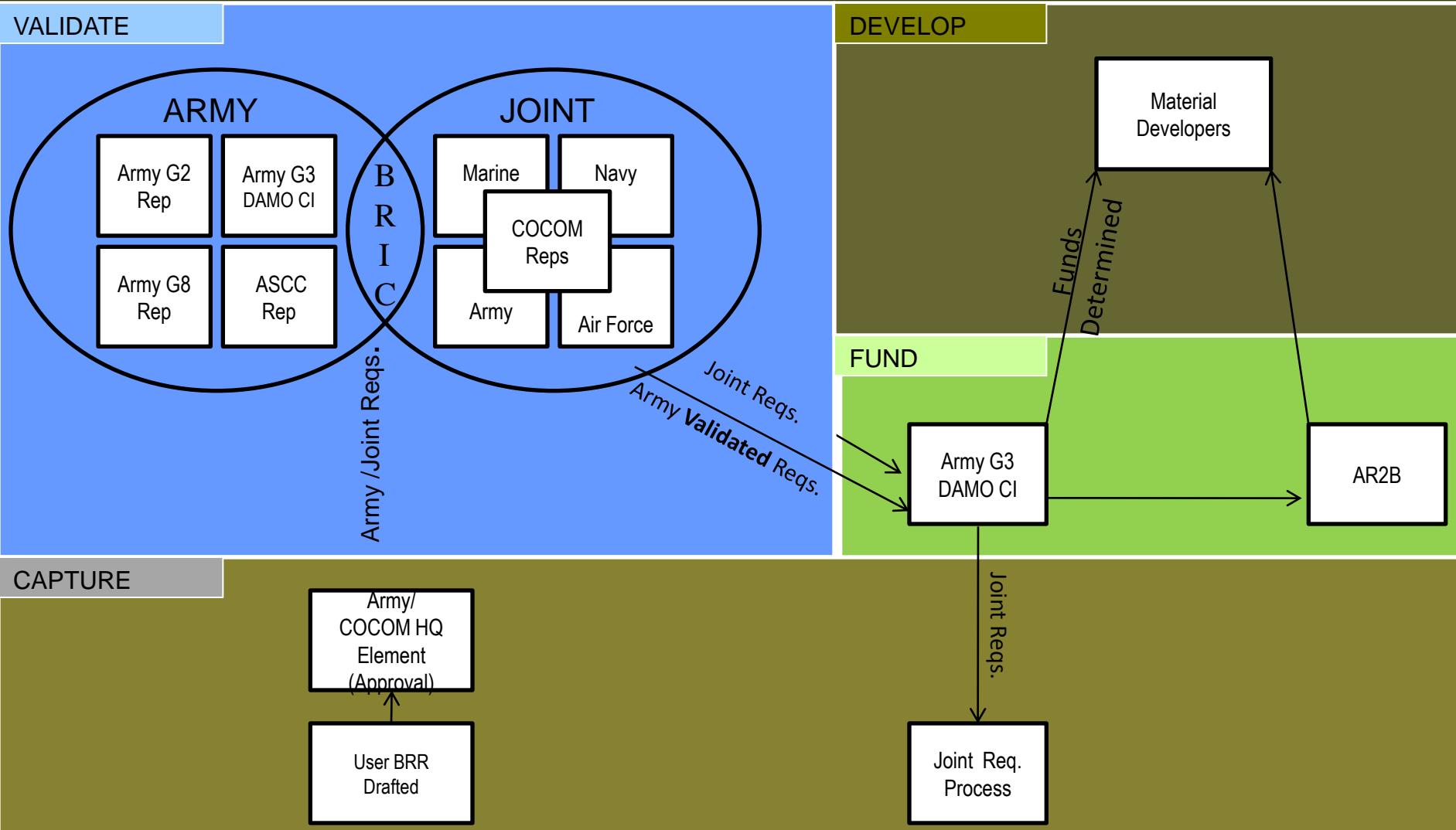Director, TCM-BF
TRADOC
Fred.Wash@us.army.mil

Mission

- The USAICoE responsibilities as the Force Modernization Proponent is:

1) Execute force management responsibilities for biometrics that include:

   - requirements definition
   - force development
   - combat developments
   - doctrine developments
   - training developments

   - materiel developments
   - leadership development and education
   - personnel developments
   - facilities developments

2) Ensure DOTLMPF actions are coordinated with Army Commands, Army Service Component Command, Forward Operating/Operations Areas, the HQDA Staff, and others, as required.

"The Army Force Modernization Proponent System is the process of managing change within the Army."

- Per AR 5-22 dtd 6 February 2009

BRIC Process

VALIDATE

DEVELOP

ARMY

- Army G2 Rep
- Army G3 DAMO CI
- Army G8 Rep
- ASCC Rep

BRIC

JOINT

- Marine
- Navy
- COCOM Reps
- Army
- Air Force

Army /Joint Reqs.

Joint Reqs.

Army **Validated** Reqs.

Material Developers

Funds Determined

FUND

Army G3 DAMO CI

AR2B

Joint Reqs.

CAPTURE

Army/ COCOM HQ Element (Approval)

User BRR Drafted

Joint Req. Process

PE EIS
PEO ENTERPRISE INFORMATION SYSTEMS

Mr. Greg Fritz
Product Director, BEC
PM DoD Biometrics
Greg.Fritz@us.army.mil

PE☒ EIS
PEO ENTERPRISE INFORMATION SYSTEMS

- DoD online 30 Jan 2009
- Stores and matches fingerprint, iris, face, and palm modalities
- 3,800+ transactions per day; rated for 8,000
- 4.2M records rated capacity
- Greater operational capability
  - Single or multi-modal processing
  - Expandable to process additional modalities
  - 95% lights-out matches
  - Latent to latent searches
    - 120k latent fingerprints
    - 8600 latent matches; 3400 latent to latent matches
  - Latent palm print capabilities
- During data migration from ABIS to NG-ABIS, observed 10% new matches the previous system missed
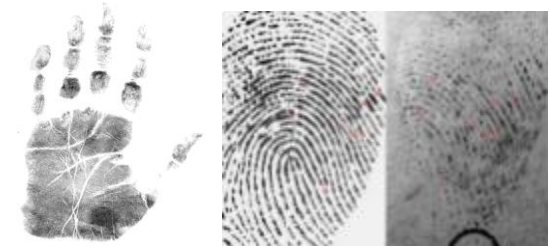
Operational Capabilities

FY 2011

Period	Submissions
FY 2011	234,985
To-Date	4,987,023

Modalities in Submissions	FY 2011
Finger	226,017
Face	178,351
Iris	167,686
Palm	20,902

Encounter Matches by Modalities	FY 2011
Finger	97,687
Face	1,050
Iris	4,556
Finger and Face	7,117
Finger and Iris	82,132
Face and Iris	1,460
Face, Finger, Iris	54,591
Fusion	364
Total	**248,957**

Period	Total Identities Matched
FY 2011	101,448
To-Date	1,728,012

Average Auto Response	Mins	Requirement Mins
Priority 1	4.02	5.00
Priority 2	4.31	30.00
Priority 3	3.18	60.00
Priority 4	2.58	240.00

Period	Stored Identities
FY 2011	133,537
To-Date	3,259,011

Period	Total Encounters Matched
FY 2011	248,957
To-Date	1,986,326

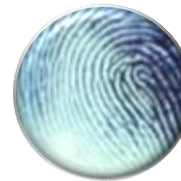| DoD ABIS Service Availability	%
Without planned downtime	99.61
With planned downtime	98.79

Near Term Capabilities

- Continue to pursue enrollments from Warfighter collections and foreign partnerships

- Accelerate expansion of capability to ingest and store

- Establish robust COOP

- Utilize advanced Identix software for highly proficient processing

PE EIS
PEO ENTERPRISE INFORMATION SYSTEMS

Mid-Term Capabilities

- Improve Biometrically Enabled Watchlist functionality

- Automate system interoperability to eliminate "sneakernet" and other workarounds

- Support S&T development to inform both quick reaction capabilities and deliberate acquisition

- Archive voice collections for future matching

- Fulfill requirements of:
  - System Sustainment
  - EBTS Compliance
  - System Interoperability
  - Disaster Recover ABIS Relocation
  - Case Management Tools
  - Voice Collection Archive System
  - Operator & User-level Maintenance

Fingerprint   **Iris**   **Face**   **Palm Print**

Fusion

PE EIS
PEO ENTERPRISE INFORMATION SYSTEMS

DoD ABIS POR Capabilities

- Achieve performance enhancements and savings through deliberate technology insertions
- Implement requirements for Warfighter and Interagency support
- Net-readiness to fully support the execution of joint critical operational activities and information exchanges
- Support peak capacity to receive and process approximately 50,000 biometric submissions daily
- Increased storage capacity for up to 300 million biometrics DoD EBTS full enrollment files

Biometric Automated Toolset – Army Revised (BAT-AR)

Ms. Maggi Patton
Product Director, TBS
PM DoD Biometrics
Margaret.Patton1@us.army.mil

BLUF: Why BAT-AR?

- **Impart sustainability, Increase productivity**

- **Ensure future operations**

- **Support projected growth**

- **Improve resource efficiency**

- **Improve our ability to share biometric signatures with coalition partners and host nations**

- **Provide latent matching while the subject is still in hand**

- **Inform the JPIv2 PoR process**

Situation

- Problem
  - BAT-A software is difficult and costly to modify due to rigid & outdated design – low productivity
  - Projected enrollment growth/ingest will overwhelm BAT-A
    - BAT servers not spec'd to meet ABIS-like processing needs
  - Inefficient parallel development of biometrics systems (BAT, BISA) w/ functional overlap
- Opportunity
  - New emphasis on improved comms to the tactical edge
  - Nearing final stages of acquisition of improved handheld devices
  - Cost Avoidance
- Program of Record (JPI) not scheduled to deliver until 2014
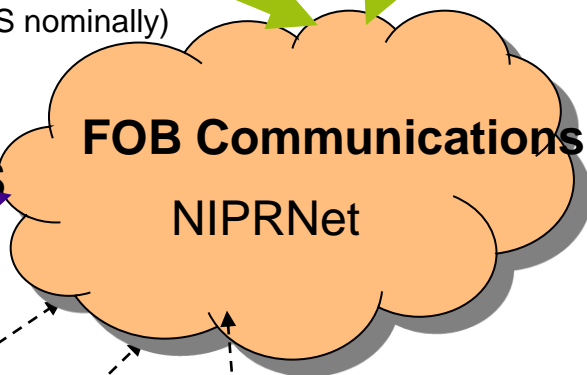
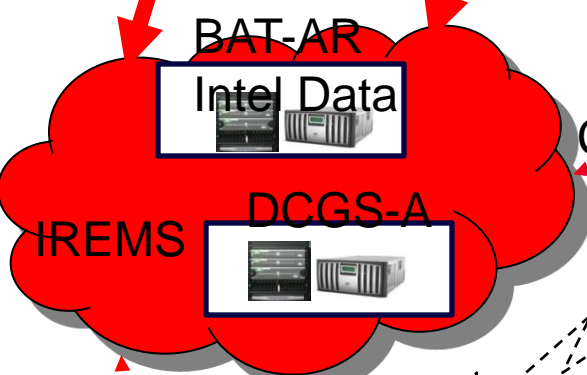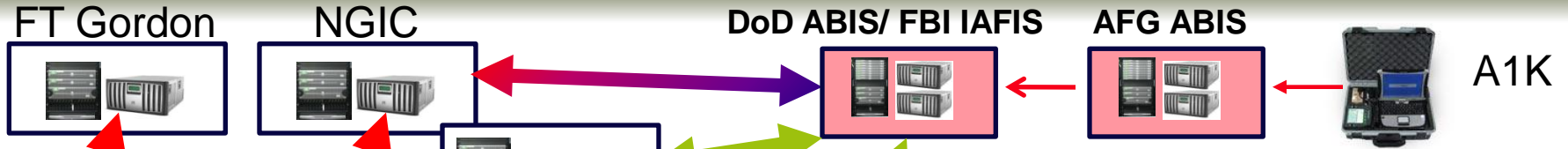**Warfighter Needs Improvements Now!**

More Background Details

- GIRoA/NTM-A acquiring 1000 CrossMatch Jumpkits and 1000 Afghani enrollers (A1K)

- HIIDE devices cannot handle the current Afghan WL size (~30K records)

- Expedient BAT-A design is currently unsustainable even without A1K – cannot timely meet needs or scale to ingest A1K enrollments

  - Software (SW) architecture is rigid, tightly coupled, painful to take apart & comprehend (analogy: *Legos* glued together) – leads to long and defect-prone feature development

  - SW based on obsolete 32-bit architecture -- limits performance and design choices

  - SW is mostly written in an archaic, slow language and obsolete supporting platform – difficult to find coder skillset when everyone else has moved on

  - Database is not cleanly separated from other functions, inhibiting changes needed for IA, performance, & tech refresh

  - Matching algorithms and engines need revamp due to IA and performance

- New urgent tactical biometrics needs continue to emerge, increasing sustainment pressure

- PM's Guidance

  - Redesign to BAT-A CPD and other existing QRC requirements documents

  - Include full base access capabilities to support BISA retirement without loss of functionality

  - Assist TCM-BF in updating BAT-A CPD to incorporate requirements from other sources

  - Use the opportunity to inform JPIv2

Ground Rules & Assumptions

- Afghani enrollments a small impact to watchlist growth
  - Other contributors to BEWL growth are more significant (see NGIC BEWL analysis)
- Warfighter wants actionable information
- Could be additional enrollment targets after 2012
- Handle biometric data and actionable information at the unclassified level to support sharing with coalition and host nation partners & comply with minimize-classification directives
- Desirable to share biometric data with coalition and host nation partners
- Continue current BAT BEI role on BAT-AR until able to handoff to MI
- Need a VSAT option for global areas lacking sufficient comms

Notional BAT-AR AV-1

FT Gordon

NGIC

DoD ABIS/ FBI IAFIS

AFG ABIS

A1K

Biometrics Servers
(CONUS nominally)

BAT-AR
Intel Data

CDS

FOB Communications

NIPRNet

IREMS

DCGS-A

Handheld devices & workstations

Analyst Workstation

PEO EIS
PEO ENTERPRISE INFORMATION SYSTEMS

- Integrate best of current TBS components
- Biometric Data Correlation
- Multi-modal Biometric Matching
- OSD DTM 09-012 compliant base access
- Auditing / Logging
- Data Abstraction Layer
- Modular, Web Services, VSAT option
- Role-based Access / Authentication
- Modern Data Management, IA
- Load Balancing
- Biometrics Framework for agile device and feature integration
- Biometric Servers: Ingestion, Enrollment, Matching, Credential & Incremental Watchlist Management
- Interface with DCGS-A, IREMS, CONUS Authoritative Repository
- Option for wireless reach-back to ABIS (matching & watchlisting)
- Modern software (.NET)
- Best (not native) matchers on devices
- 64-bit OS, scalable & expandable
- Reduced System Footprint (fewer servers/staff)
- Eliminate data bridge needs
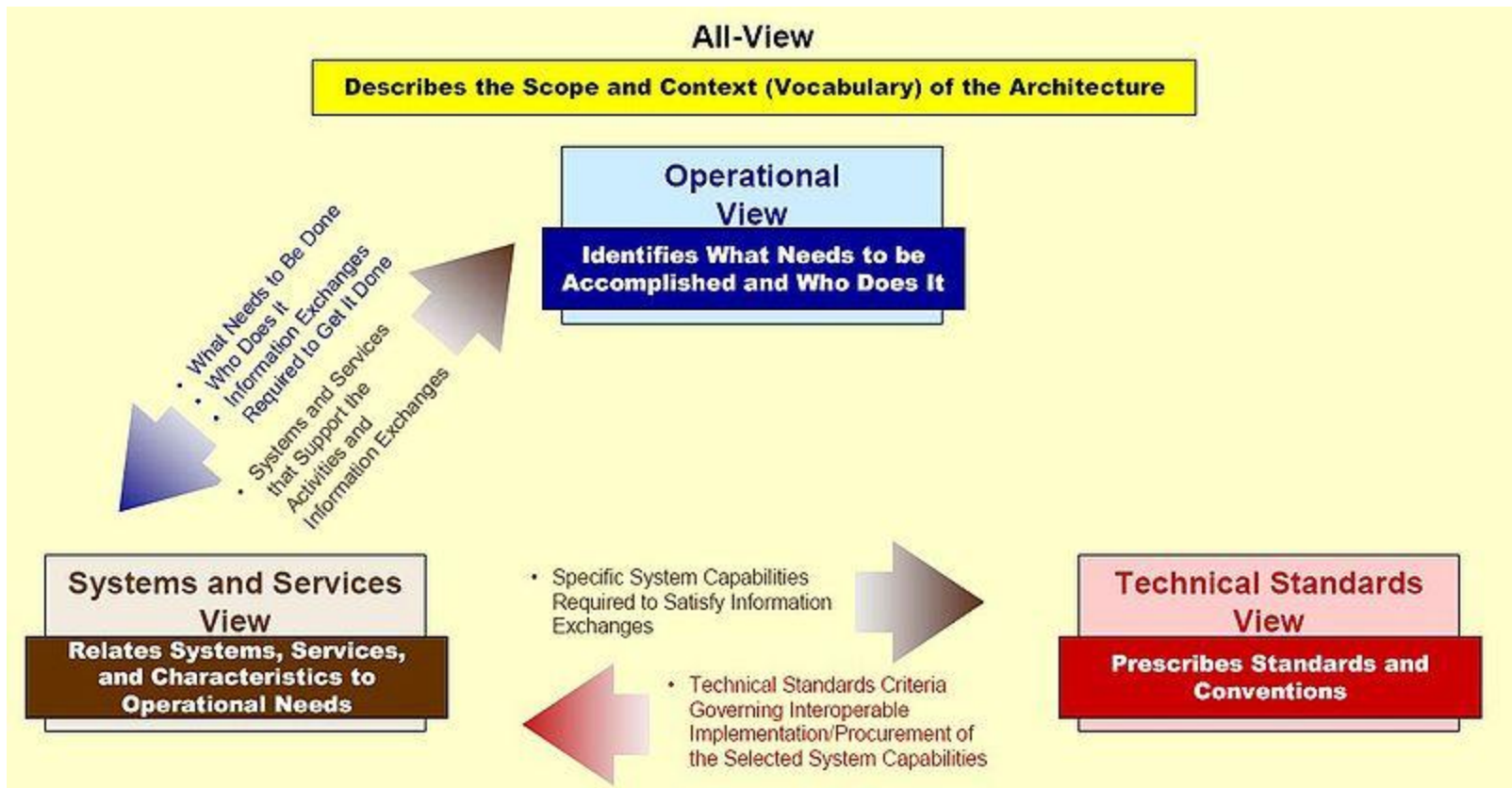- Remote admin and software management

Next Steps

- Generate updated BAT capabilities document

- Validate shift in resources and requirement analysis

- Adjust cost/schedule ROMs if necessary

- Map work to existing contracts

- Define detailed architecture

- Apply reusable components

- Confirm new code requirements
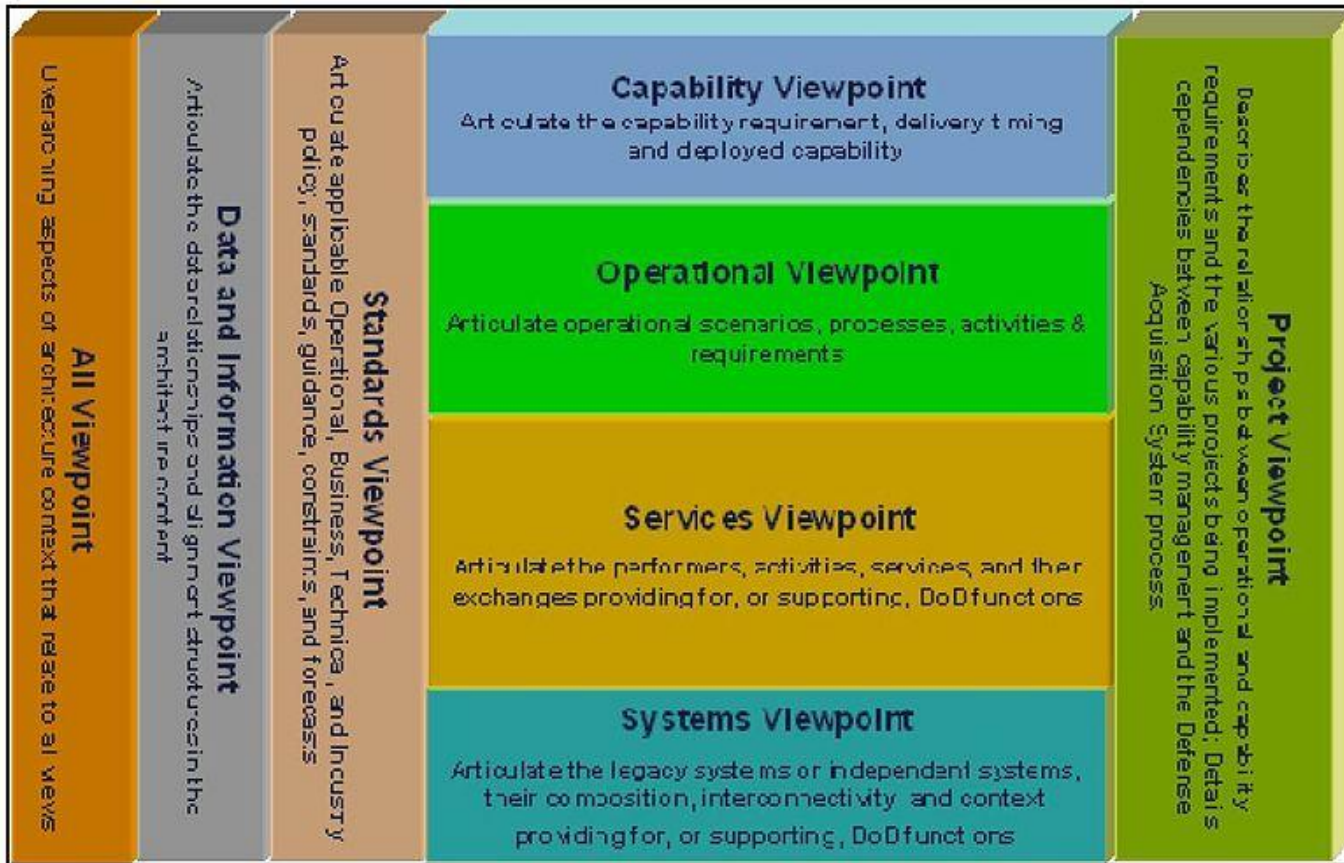
- Revise capability packages

The Architecture

Dr. Aleksandar Lazarevich
Chief Engineer
PM DoD Biometrics
Aleksandar.Lazarevich@us.army.mil

DoDAF 1.5

All-View

Describes the Scope and Context (Vocabulary) of the Architecture

Operational View
Identifies What Needs to be Accomplished and Who Does It

- What Needs to Be Done
- Who Does It
- Information Exchanges Required to Get It Done

- Systems and Services that Support the Activities and Information Exchanges

Systems and Services View
Relates Systems, Services, and Characteristics to Operational Needs

- Specific System Capabilities Required to Satisfy Information Exchanges

- Technical Standards Criteria Governing Interoperable Implementation/Procurement of the Selected System Capabilities

Technical Standards View
Prescribes Standards and Conventions

DoDAF 2.0

All Viewpoint
Overarching aspects of architecture context that relate to all views

Data and Information Viewpoint
Articulate the data relationships and alignment structures in the architecture content

Standards Viewpoint
Articulate applicable Operational, Business, Technical, and Industry policy, standards, guidance, constraints, and forecasts

Capability Viewpoint
Articulate the capability requirement, delivery timing and deployed capability

Operational Viewpoint
Articulate operational scenarios, processes, activities & requirements

Services Viewpoint
Articulate the performers, activities, services, and their exchanges providing for, or supporting, DoD functions

Systems Viewpoint
Articulate the legacy systems or independent systems, their composition, interconnectivity and context providing for, or supporting, DoD functions

Project Viewpoint
Describe the relationships between operational and capability requirements and the various projects being implemented; Details dependencies between capability management and the Defense Acquisition System process

DoDAF Viewpoints

PE EIS
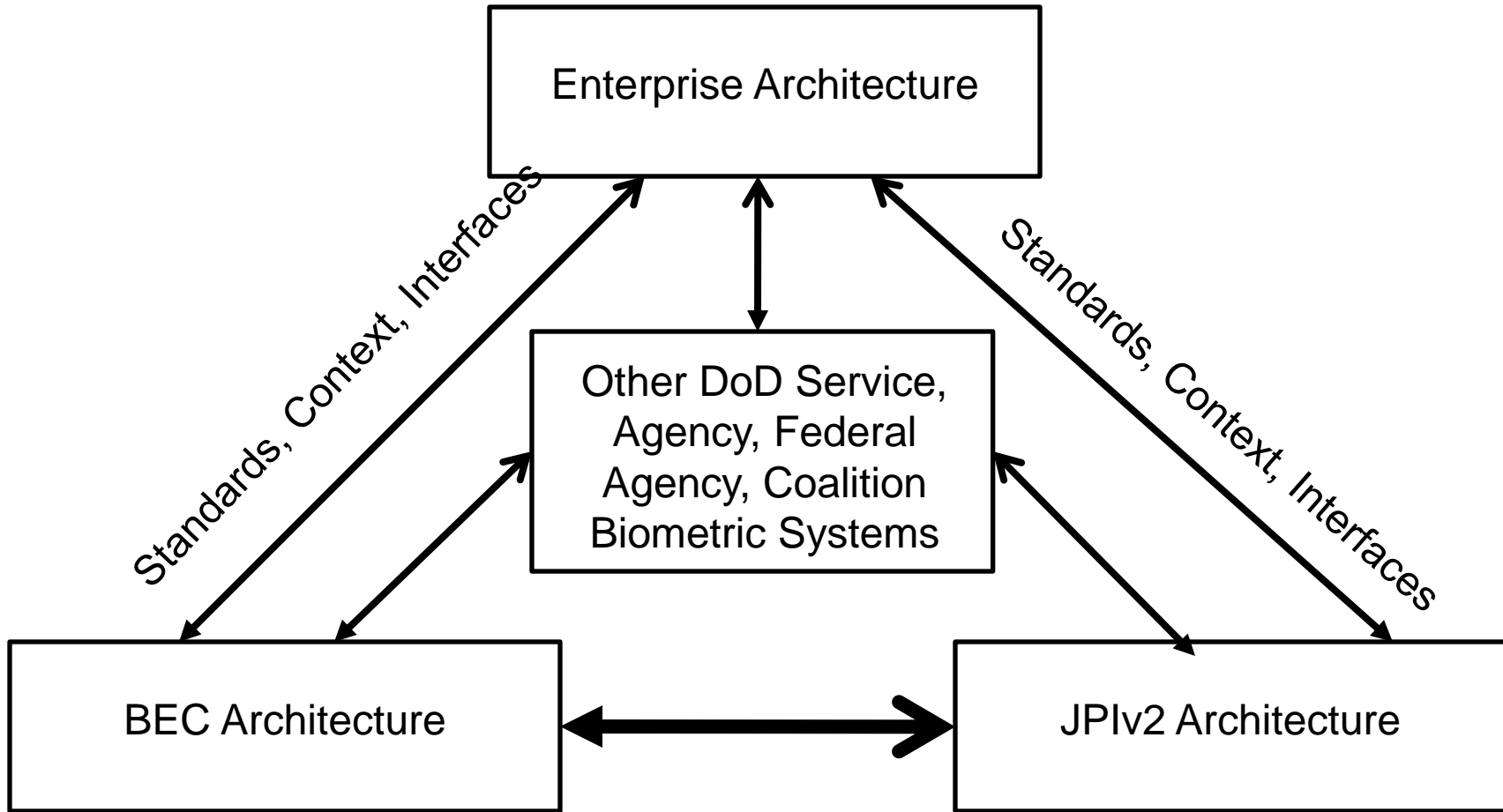PEO ENTERPRISE INFORMATION SYSTEMS

Questions

BACKUP SLIDES

DoD ABIS

- Overview

- Status:
    - ADM (MDA may be delegated from OSD to HQDA for FDD)
    - Status of CPD
    - Status of CPD

- Success of QRC

- Lessons Learned from QRC

- Highlights for POR

- BEI-ICD

- IT Box

DoD Next Generation-ABIS 1.0

Program Description

Objective: The fundamental purpose of Department of Defense Automated Biometric Identification System (DoD-ABIS) is to store, match, and share national biometric resources for adversary (red force) and neutral/unknown/non-aligned (gray force) population groups across the full range of military operations. The system is maintained and protected as an national asset.

Value to the Warfighter: The system provides a central collection repository as the biometrics enterprise authoritative data source in a currently fielded system-of-systems approach to a distributed biometrics capability in support of Operation Enduring Freedom (OEF)/ Operation Iraqi Freedom (OIF).

Program Schedule

- 29 Jan 2009 NG-ABIS Go Live
  - Over 5.1 Million distinct submissions
  - 99.54% availability

- Winter 2011 Transaction Manager Integration

- Winter 2011 Master Recovery System Implementation

Capabilities Supported

Fingerprint   **Iris**   **Face**   **Palm Print**
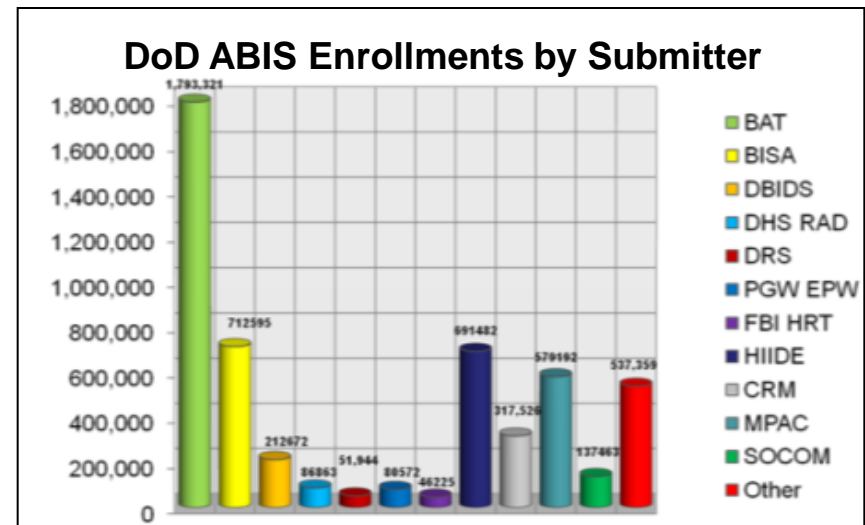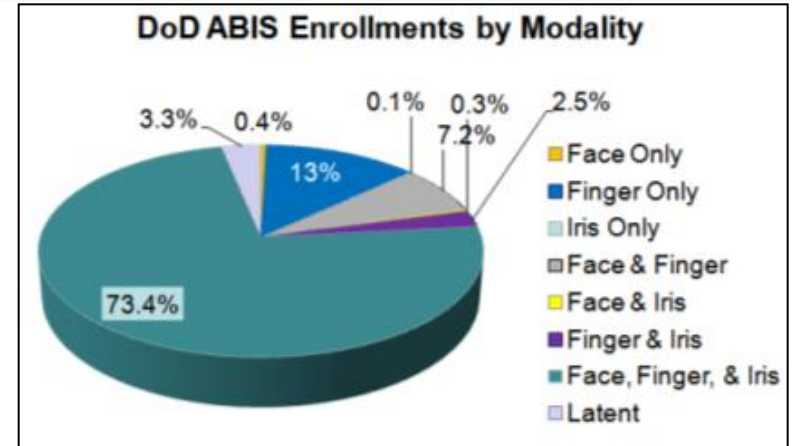
Fusion

Challenges and Issues

Challenges:
- Maintain high availability and security while enhancing system
- Transition from QRC to POR

Issues:
- BTF-W Power/Circuits
- Expanding Mission Requirements

- 5.1M records

- 120k latent fingerprints

- 153k watchlisted individuals

- Most collections from Iraq (49%), but concentrated collection effort underway in Afghanistan (18%)

- 84.5% of records are multimodal
  - 73% contain face, finger, and iris
  - Only 13% are single modality; mostly from digitized fingerprint cards

- Compliant with data standards

DoD ABIS Enrollments by Modality

3.3% 0.4% 0.1% 0.3% 2.5%
7.2%
13%
73.4%

- Face Only
- Finger Only
- Iris Only
- Face & Finger
- Face & Iris
- Finger & Iris
- Face, Finger, & Iris
- Latent

DoD ABIS Enrollments by Submitter

1,783,321
712595
212672 86863 51944 80572 46225
691482
317526
579192
137463
537,359

- BAT
- BISA
- DBIDS
- DHS RAD
- DRS
- PGW EPW
- FBI HRT
- HIIDE
- CRM
- MPAC
- SOCOM
- Other

Capability Development Strategy

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017

Current ABIS — Development, TMI / COOP, OA, SUSTAINMENT; NG-ABIS 1.0, NG-ABIS 1.2, FDDR

Future ABIS (BEC) — Milestone Prep, Development, TEST, SUSTAINMENT; MS B, MS C, FDDR

Current Collection (BAT) — SUSTAINMENT

Future Collection (JPIv2) — Milestone Prep, Development, TEST, SUSTAINMENT; MS B, MS C, IOC, FOC

Current prototype systems (e.g., ABIS, BAT) will transition to formal acquisition programs (BEC, JPIv2) in 2012

PEO EIS
PEO ENTERPRISE INFORMATION SYSTEMS
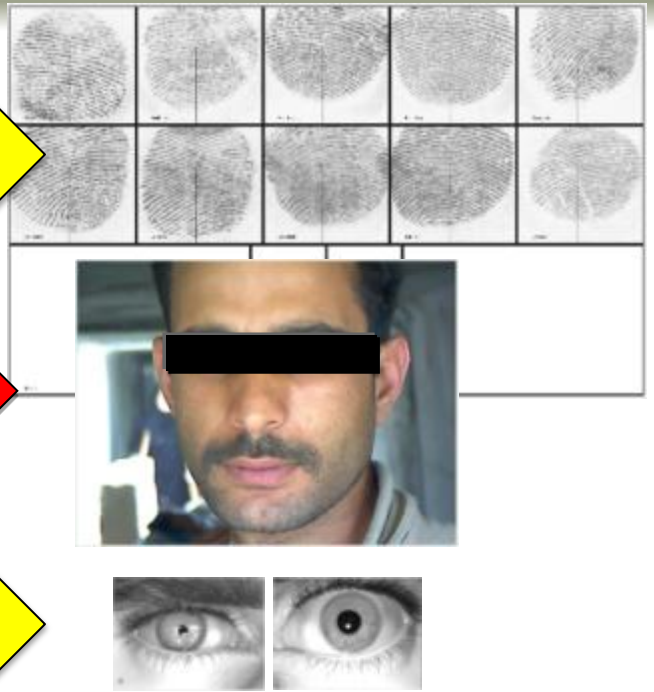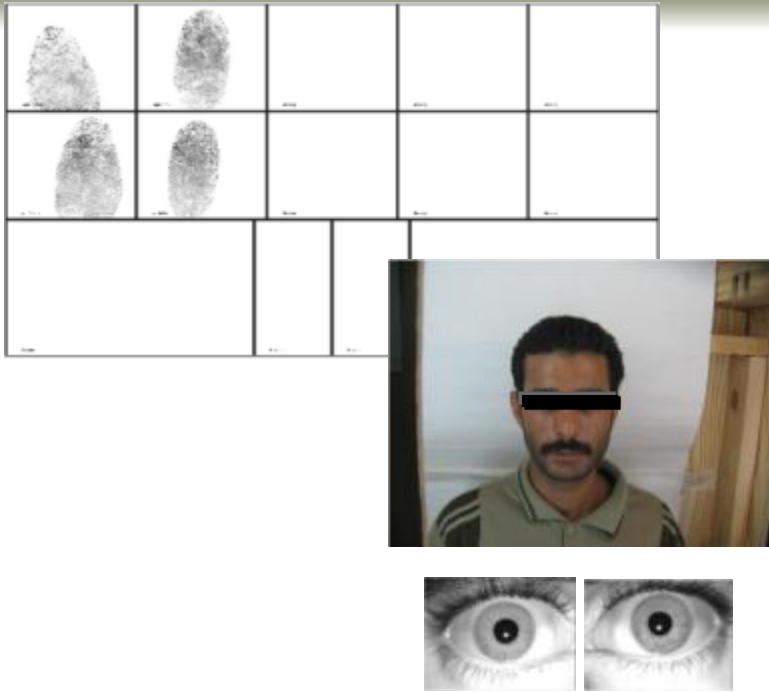
Fusion Matching

Fingerprints: INCONCLUSIVE

Face: NON-IDENT

Iris: INCONCLUSIVE

In this example, no single modality scored high enough to return a match.

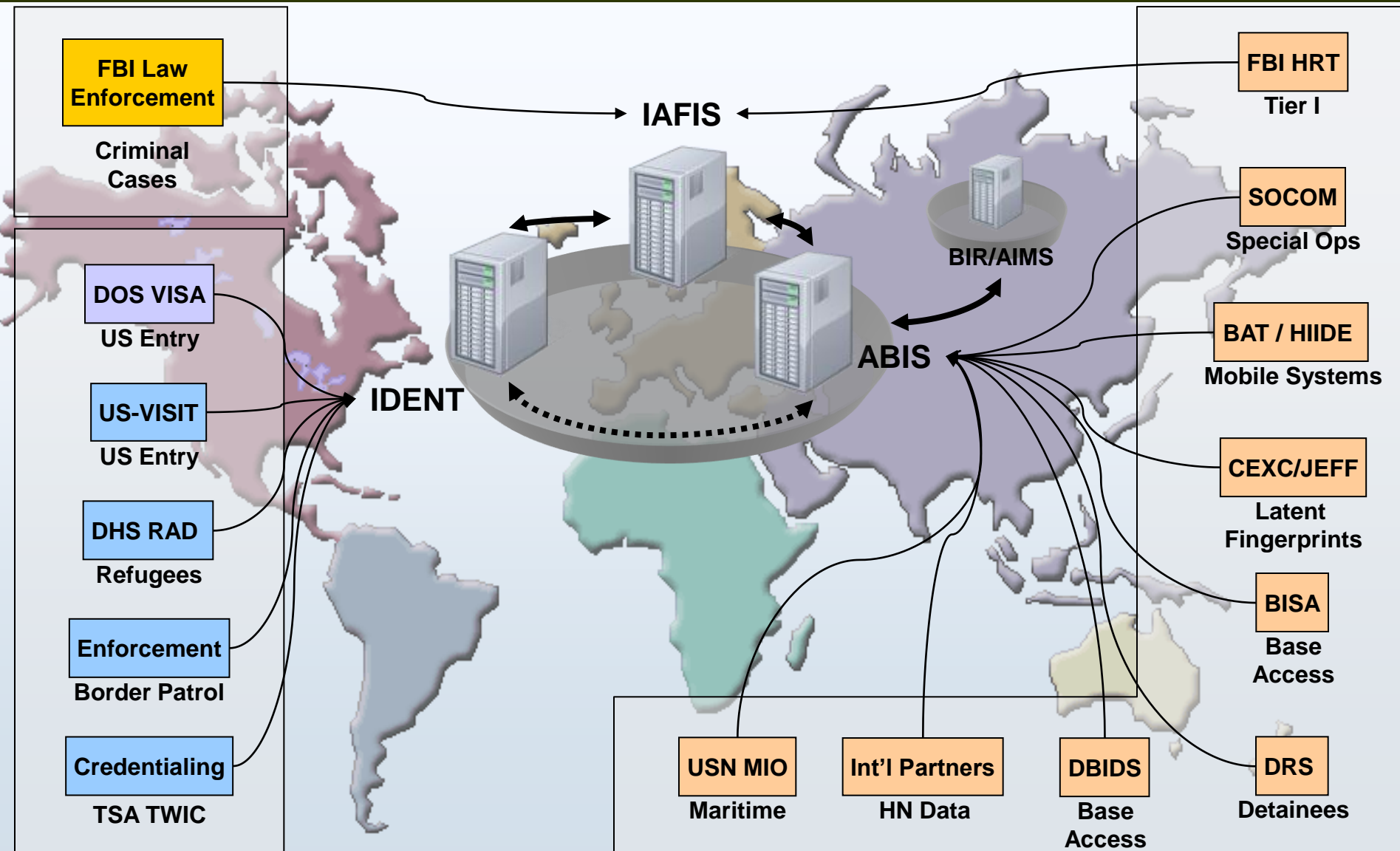The fusion algorithm combined near matches to identify the individual.

Fusion

Match

PEO EIS
PEO Enterprise Information Systems

Interagency Data Sharing

Program	Submission Method	Gallery Retention	Avg. Monthly Enrollments
DHS CBP / OBP (FTP established once ISA/MOA established.)	Email/FTP/SOF NIPR	Yes	144
DHS USVISIT ASYLUM	CD-R/email to Interface	No	80
REFUGEE AFFAIRS	Email/CD-R	Yes	2100
DHS USCG	Email via US-VISIT to Interface/CD-R	No	177
USCG-JQCP (Test in Progress)	Using JSOC assets to ABIS/IAFIS/IDENT	No	N/A
DHS ICE	(BITMAP) email to SOF NIPR portal ABIS/CJIS/IDENT	Yes	233

PE⊗EIS
PEO ENTERPRISE INFORMATION SYSTEMS

Interagency Data Sharing

| Program	Submission Method	Gallery Retention	Avg. Monthly Enrollments
FBI Special Stops (SIU)	Email to interface/CD-R	Yes	48
FBI HRT (GIU) (QCP)	Email to ABIS	Yes	1274
DOS IRIS (IRIS Pilot evolving from Iris only to Multi-modal submissions/vetting at US Embassies.)	Email to ABIS	Yes	126
DOS DSS (pilot) (Small DOS program / Diplomatic Security Service. Scanned hard cards sent to FTP, BES Team pulls from FTP)	FTP/email to ABIS	Yes	1

Interagency Operational View

DEPARTMENT OF DEFENSE
BIOMETRICS
PROJECT MANAGEMENT OFFICE

IAFIS

BIR/AIMS

IDENT

ABIS

FBI Law Enforcement
Criminal Cases

DOS VISA
US Entry

US-VISIT
US Entry

DHS RAD
Refugees

Enforcement
Border Patrol

Credentialing
TSA TWIC

FBI HRT
Tier I

SOCOM
Special Ops

BAT / HIIDE
Mobile Systems

CEXC/JEFF
Latent Fingerprints

BISA
Base Access

USN MIO
Maritime

Int'l Partners
HN Data

DBIDS
Base Access

DRS
Detainees

OSD PSA Priorities

- Afghanistan
  - Enhance biometrics/forensics capabilities
  - Support CJIATF-435
  - Satisfy JUONs
  - Develop GIRoA capabilities

- Institutionalize the capability
  - Requirements, Programs, Resources
  - Full DOTMLPF considerations
  - End-to-end approach across the enterprise

- Global application of Biometrics technologies to support COCOM missions
  - International / Interagency sharing arrangements
  - Consistent with varying HN policies

- Seamless interoperability with the interagency
 - Data Sharing
 - Technology Development
  - Operations
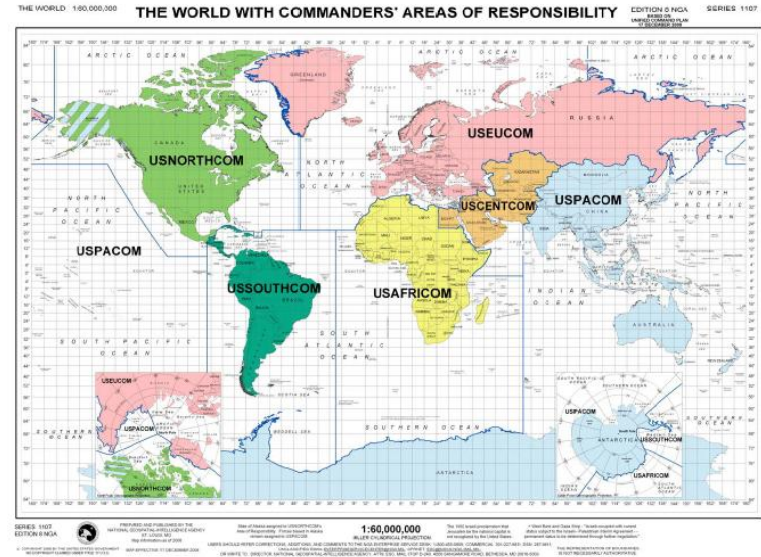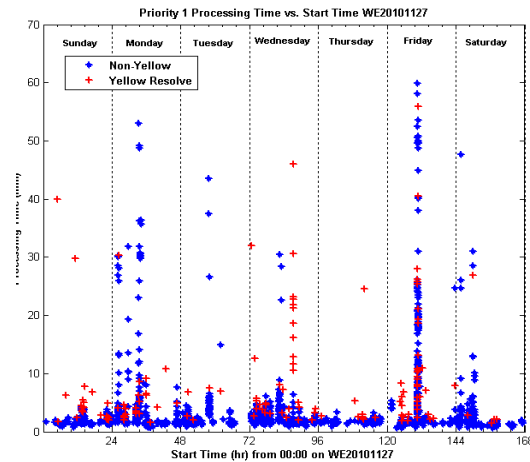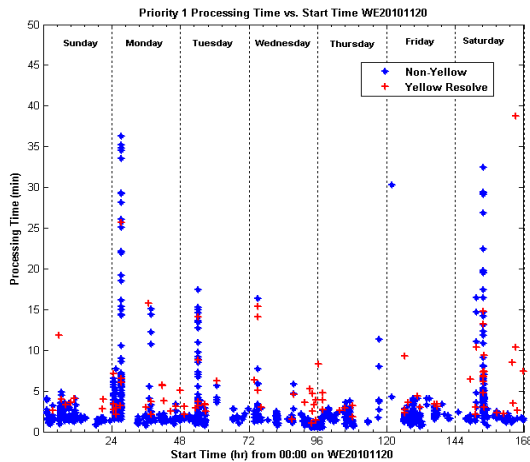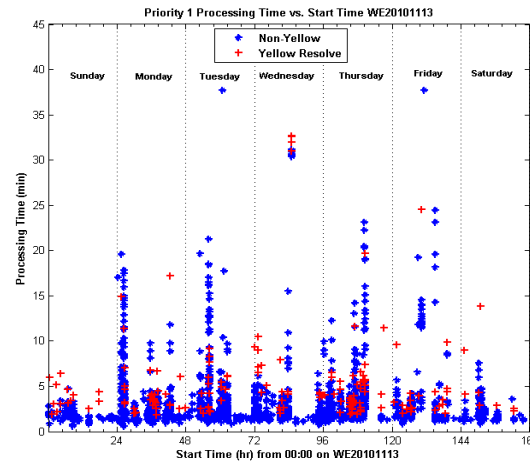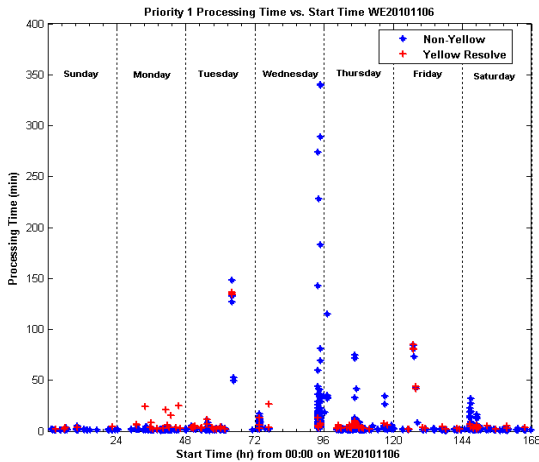
- The four charts to the left show the total processing time for each priority 1 submission as a function of the start time

- The density of the markers indicates that the large number of submissions is correlated to the increase in processing time

- The angular lines for the Yellow Resolves are a normal occurrence as the Examiners work off the Yellow Resolve backlog

- The figure below is the correlation between processing time and the time to generate the response file

    - The single threaded architecture of the iTM in generating response files is the major cause of long processing times when there are many submissions in a short period of time
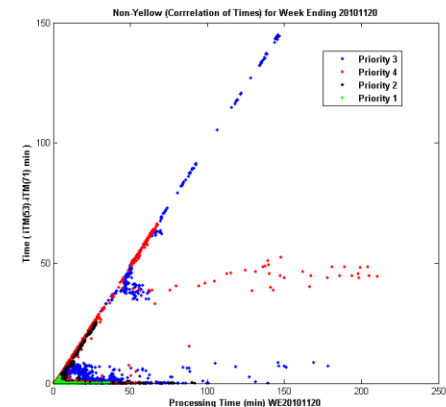
Submission Density Sample
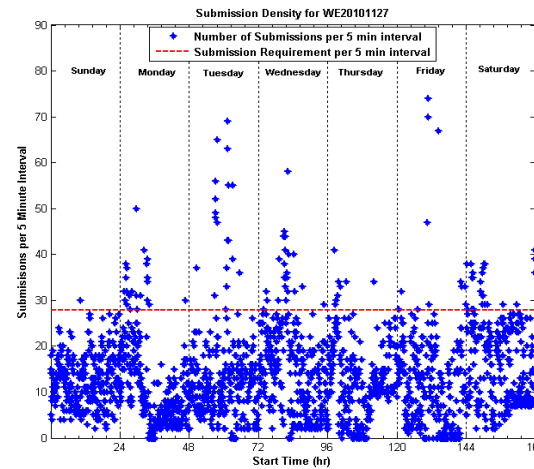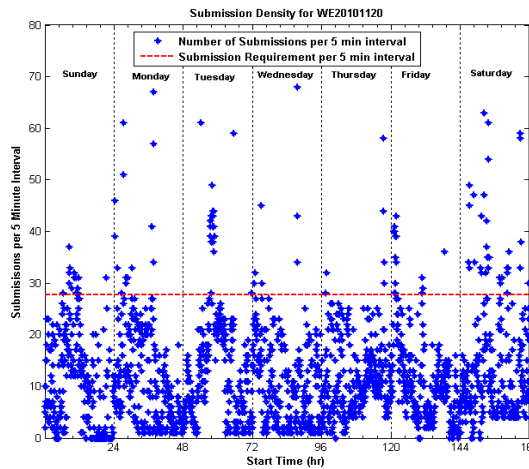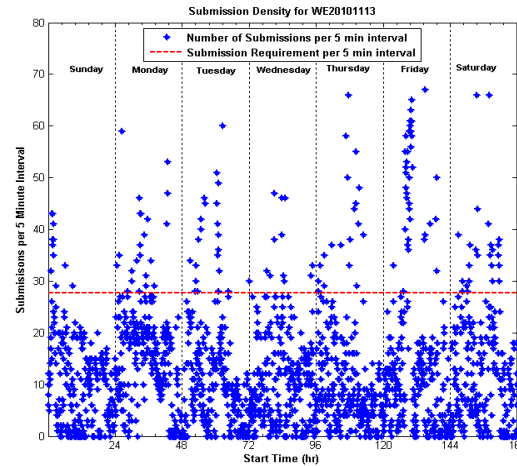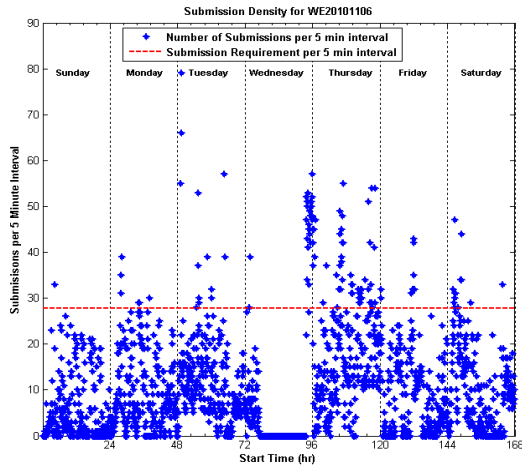
- The charts show the number of submissions in each 5 minute interval for 4 weeks in November

- The red dash line represents 27.8 submissions per 5 minute interval which is derived from the requirement of 8,000 submissions per day

- Blue markers above the red dash line indicates a submission rate that exceeds the requirement

- High submission rates have an effect on processing times because the generation of response files by the iTM is single threaded

TDA Required / Future Vision

TRADOC Capability Manager for Biometrics and Forensics (TCM-BF)	Civilian		Military	
	Req	Auth	Req	Auth
Director, O-6			1	
Deputy Director, GG 15	1			
NCOIC, E-8			1	
Systems Development, MOS 51A, O-4			1	
Operations Management, GG12	1			
Operations Management NCOIC, E-8			1	
Specialist, Personnel Management, GG12	1			
Specialist, Logistics Management, GG12	1			
Management Support Assistant, GG09	1			
COCOMs Support/LNOs (6 major COCOMs), GG12	**6**			
Center of Excellence Support /LNOs (10 USA CoEs), GG12	**10**			
Department of Defense Services Support/LNOs (4 Services separating Navy and Marine Corp), GG12	**4**			
Higher Headquarters, Army Support/LNOs (HQDA and TRADOC), GG12	**3**			
BEI/FEI Coordinator, GG14	**1**			
MFLT Division Chief, GG14	1			
Officer, MFLT Deputy Division Chief, O1A, O4			1	
Research Specialist – MFLT Capability Developer, GG13	1			
Research Specialist – MFLT Capability Developer, GG12	1			
Biometrics Division Chief, GG14	**1**			
Officer, Biometrics Deputy Division Chief, O1A, O4			**1**	
Research Specialist – Biometrics (Requirements Analyst/SME) GG13	**6**			
Research Specialist – Biometrics (DT&E/SME) GG12	**3**			
BEI Integrator/Planner, GG13	**1**			
BEI Requirements Analyst/Developer/Writer, GG12	**1**			
Forensics Division Chief, GG14	1			
Officer, Forensics Deputy Division Chief, O1A, O4			1	
Forensics Doc, Training, and Education, GG13	1			
Forensics RDT&E, GG12	1			
Forensics Architecture, GG12	1			
Forensics Operations, GG12	1			
Forensics Knowledge Management, GG12	1			
FEI Integrator/Planner, GG13	1			
FEI Requirements Analyst/Developer/Writer, GG12	1			
CHART TOTALS	**52**		**7**	

24 total LNOs with subject matter experience

13 total to support Biometric efforts

Biometrics Requirements Request Form

Date	Requirement Title	BRIC Tracking BRR#	PM Tracking CCR#

CONTACT INFORMATION

Government Primary Sponsor's Name/Organization/Location	Email Address	Phone Number

Secondary Sponsor's Name/Organization/Location	Email Address	Phone Number

Support Point of Contact Name/Organization/Location	Email Address	Phone Number

REQUIREMENT SPECIFICS

Priority of Requirement	Classification	Attachments
1-Emergency ☐ 2-Critical ☐ 3-Major ☐ 4-Minor ☐	0-Mandated ☐ 1-New Functionality ☐ 2-Enhancement ☐ 3-Latent Defect ☐	Yes ☐ No ☐
		Attch. Name 1
		Attch. Name 2

Desired Completion Date

Problem Description / Background

Current Work Around:

Requirement:

Recommended Solution:

Stakeholders / Users Affected:

TCM-BF INFORMATION

Date TCM-BF Received		Completion/Closeout Date	

POC	Email Address	Phone #

Validated: Yes ☐ No ☐ NA ☐	BRIC Validation Date	
Joint: Yes ☐ No ☐ NA ☐	BRIC Voted Priority	

STATUS SUMMARY / TIMELINE

Scoping Working Group Held	Yes ☐ No ☐ NA ☐	Date Held	

PM BIOMETRICS PRE-BRIC ANALYSIS

Date PM Received		Date Returned to TCM-BF	

POC	Email Address	Phone #

Recommended Priority	Recommend Classification
1- Emergency ☐ NA ☐ 2- Critical ☐ 3- Major ☐ 4- Minor ☐	0-Mandated ☐ 1-New Functionality ☐ 2-Enhancement ☐ 3-Latent Defect ☐

Recommended Requirement Verbiage Change

Additional Comments / Requirement Dependencies

BRIC Prioritized Requirements List – Army

ARMY VALIDATED REQUIREMENTS			
TRACKING NUMBER	PRIORITY	CRITICALITY	REQUIREMENT
20100600079	1	EMERGENCY	CX-I to SIPR Overwrite Prevention
20100900084	2	EMERGENCY	EFT Export to GOI
20090200035	3	EMERGENCY	BAT Palm Print
20090100006	4	CRITICAL	Classification Marking
20090100001v2	5	CRITICAL	Merged Logical Dossier View
20091100066v2	6	CRITICAL	BAT-A Utilize Tactical Radio Networks
20100500078	7	CRITICAL	BAT Thin Client Vista Compatible
20090100002v2	8	CRITICAL	BAT Client History
20090100004v2	9	CRITICAL	Enhanced Prioritized ID Search
20090800061a	10	CRITICAL	International Sharing-Canadian Caveats
20090100003v2	11	CRITICAL	Updating Biometrics during ID
20090100005v2	12	CRITICAL	Hot Sync
20090100007v2	13	CRITICAL	Improved Search Tool
20090100008	14	CRITICAL	Match Results Feedback Loop to User
20090100009	15	CRITICAL	Watchlisting
20090100012	16	CRITICAL	BAT Services and Data Exchange Standard
20100100073	17	CRITICAL	BIMA Ingest into BAT-A
20100100072	18	CRITICAL	BDCS Ingest into BAT-A
20100300074	19	CRITICAL	BAT Iris Raw Image Template Generation
20100800082	20	CRITICAL	BAT Interoperability
20100900084	21	CRITICAL	EFT Export to GOI
20100800085	22	CRITICAL	ABIS Bulk Ingest
20090100015	23	MAJOR	Voice Templating & Matching Implementation
20090100015	24	MAJOR	BAT Indexing / Free-Text Search Capability
20090100016	25	MAJOR	ID from Dossier
20090100018	26	MAJOR	Per-node Settings
20090100020	27	MAJOR	Node Relationship Metrics
20090100021	28	MAJOR	Mug Book and Lineups
20090100022	29	MAJOR	US Persons Marking
20090100023	30	MAJOR	Detention Data in BAT Dossier
20090100025v2	31	MAJOR	Reporting Enhancements
20090100026	32	MAJOR	Improved DSS Logging
20090100027	33	MAJOR	Axis Pro
20090200036	34	MAJOR	BAT Training Database
20100700081	35	MAJOR	Auto BDF Size Creation
20100700080	36	MAJOR	BAT VMWare Implementation
20090100028	37	MINOR	Height & Weight / English & Metric
20090200055	38	MINOR	PCASS Entry

BRIC Prioritized Requirements List - Joint

As of 22DEC10

ARMY VALIDATED JOINT REQUIREMENTS			
TRACKING NUMBER	**PRIORITY**	**CRITICALITY**	**REQUIREMENT**
20091000064		CRITICAL	DSS Usage Scheduler
20100400076		CRITICAL	Rapid Site Exploitation Information Exchange Portal
20090200031		MAJOR	MatchML Standard
20090200032		MAJOR	Best of Templates
20090200033		MAJOR	Collection Devices w/GPS
20091200068		MAJOR	System Agnostic Template Ingestion and Dissemination
MANDATED REQUIREMENTS (Class 0)			
TRACKING NUMBER	**PRIORITY**	**CRITICALITY**	**REQUIREMENT**
20091100065	TRACKING		SPOT

TDA Required / Future Vision

Group	TRADOC Capability Manager for Biometrics and Forensics (TCM-BF)	Civilian Req	Civilian Auth	Military Req	Military Auth
Cmd Grp	Director, O-6			1	
Cmd Grp	Deputy Director, GG 15	1			
Ops	NCOIC, E-8			1	
Ops	Systems Development, O-4, MOS 51A			1	
Ops	Operations Management, GG12	1			
Ops	Operations Management NCOIC, E-8			1	
Ops	Specialist, Personnel Management, GG12	1			
Ops	Specialist, Logistics Management, GG12	1			
Ops	Management Support Assistant, GG09	1			
LNOs	COCOMs Support/LNOs (6 major COCOMs), GG12	6			
LNOs	Center of Excellence Support /LNOs (10 USA CoEs), GG12	10			
LNOs	Department of Defense Services Support/LNOs (4 Services separating Navy and Marine Corp), GG12	4			
LNOs	Higher Headquarters, Army Support/LNOs (HQDA and TRADOC) GG12	3			
LNOs	BEI/FEI Coordinator, GG14	1			
MFLT	MFLT Division Chief, GG14	1			
MFLT	Officer, MFLT Deputy Division Chief, O1A, O4			1	
MFLT	Research Specialist – MFLT Capability Developer, GG13	1			
MFLT	Research Specialist – MFLT Capability Developer, GG12	1			
Biometric	Biometrics Division Chief, GG14	1			
Biometric	Officer, Biometrics Deputy Division Chief, O1A, O4			1	
Biometric	Research Specialist – Biometrics (Requirements Analyst/SME) GG13	6			
Biometric	Research Specialist – Biometrics (DT&E/SME) GG12	3			
Biometric	BEI Integrator/Planner, GG13	1			
Biometric	BEI Requirements Analyst/Developer/Writer, GG12	1			
Forensics	Forensics Division Chief, GG14	1			
Forensics	Officer, Forensics Deputy Division Chief, O4			1	
Forensics	Forensics Doc, Training, and Education, GG13	1			
Forensics	Forensics RDT&E, GG12	1			
Forensics	Forensics Architecture, GG12	1			
Forensics	Forensics Operations, GG12	1			
Forensics	Forensics Knowledge Management, GG12	1			
Forensics	FEI Integrator/Planner, GG13	1			
Forensics	FEI Requirements Analyst/Developer/Writer, GG12	1			
	CHART TOTALS	52		7	