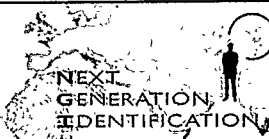




# NGI Capabilities



## Original NGI Capabilities:

- Quality Check Automation - **completed July 2007**
- Disposition Reporting Improvements – *Partially completed September 2007*
- Interstate Photo System
- Advanced Fingerprint Identification Technology
- Enhanced IAFIS Repository
- National Palm Print System

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ORIGINAL NGI CAPABILITIES BASED ON APB/CC STAKEHOLDER REQUESTS –MANY CAPABILITIES COMING WITH EACH NEW INCREMENT OF NGI AND FLEXIBLE SYSTEM FOR FUTURE ENHANCEMENTS

**Quality Check Automation (QCA)** - The QCA capability has successfully enabled faster response times by eliminating the manual Quality Check review of the majority of fingerprint transactions. The QCA capability implemented electronic business rules to provide an automated quality check review, automating the decision process and making it more consistent. In the past three months, the overall automation rate has been reported at 88.33%.

**Disposition Reporting Improvements (DRI)** - The DRI will provide a variety of options to increase the submission of disposition data via Compact Disk Read-Only Memory and potentially future uses of Digital Video Disk, Internet, and other standard media types. Also included in this capability is the submission of disposition data via the Interstate Identification Index (III), the CJIS Wide Area Network (WAN), and future direct connection to federal courts.

**Interstate Photo System (IPS) Enhancements** - The IPS enhancements will allow customers to add photographs to previously submitted arrest data, submit photos with civil submissions, and submit photos in bulk formats. The IPS will also allow for easier retrieval of photos, include the ability to accept and search for photographs of scars, marks, and tattoos, and explore the use of facial recognition technology.

**Advanced Fingerprint Identification Technology (AFIT)** - The AFIT objectives enhance the IAFIS fingerprint and latent processing services, increase the accuracy and daily fingerprint processing capacity of the IAFIS, and improve the IAFIS availability. New functionality will include a rapid fingerprint search of the Repository for Individuals of Special Concern (RISC). This new capability will provide a rapid identification search of a limited population using a minimum of two rolled or flat fingerprints. The limited population is anticipated to contain records for Wanted Persons, Known or Suspected Terrorists, Sex Offender Registry Subjects, and other persons of special interest.

**Enhanced IAFIS Repository (EIR)** - The EIR capability will allow compatibility between existing civil and criminal repositories as well as new repositories by providing single identity management. The EIR will support the search and retrieval services for new biometric modalities such as iris images, and provide administrative functions for special population cognizant files. As a new feature, a Rap Back Service will support an authorized contributor's ability to enroll identities and receive notifications regarding subjects based on selected activities. The proposal to develop the Rap Back Service is currently undergoing review by the FBI's Office of General Counsel.

**National Palm Print System (NPPS)** - The NPPS will support the establishment of a centralized repository for palmprint data within the NGI by facilitating the search and storage of both known and unknown palmprints. The NPPS will be accessible by authorized criminal justice and noncriminal justice agencies nationwide. This new capability will enable criminal justice agencies to search latent palmprints obtained from crime scenes against a national repository, enhancing law enforcement's ability to solve crime.



## Incremental Development Plan



- Increment 0 – Advanced Technology Workstations (ATW)
- Increment 1 – Identification/ Fingerprint
- Increment 2 – RISC/Initial NGI Infrastructure
- Increment 3 – Latents/Palms/Full NGI Infrastructure
- Increment 4 – Rap Back/Facial & SMT Search
- Increment 5 – Full NGI Functionality
- Increment 6 – Full Operational Capability

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High level view of what happens in each increment  
Details of each increment will be forth coming.



# Increment 4

NEXT  
GENERATION  
IDENTIFICATION

## **Rap Back, Facial & SMTs Search Capabilities Migration of remaining IAFIS functionality to NGI**

- Rap Back – notification of criminal activity on previously enrolled individuals
- Facial & SMTs – expansion of facial and SMTs searches for investigative purposes.
- Disposition reporting via CJIS Wide Area Network (WAN) and NCIC
- Unique Identity
- RISC notifications
- Fingerprint verification services

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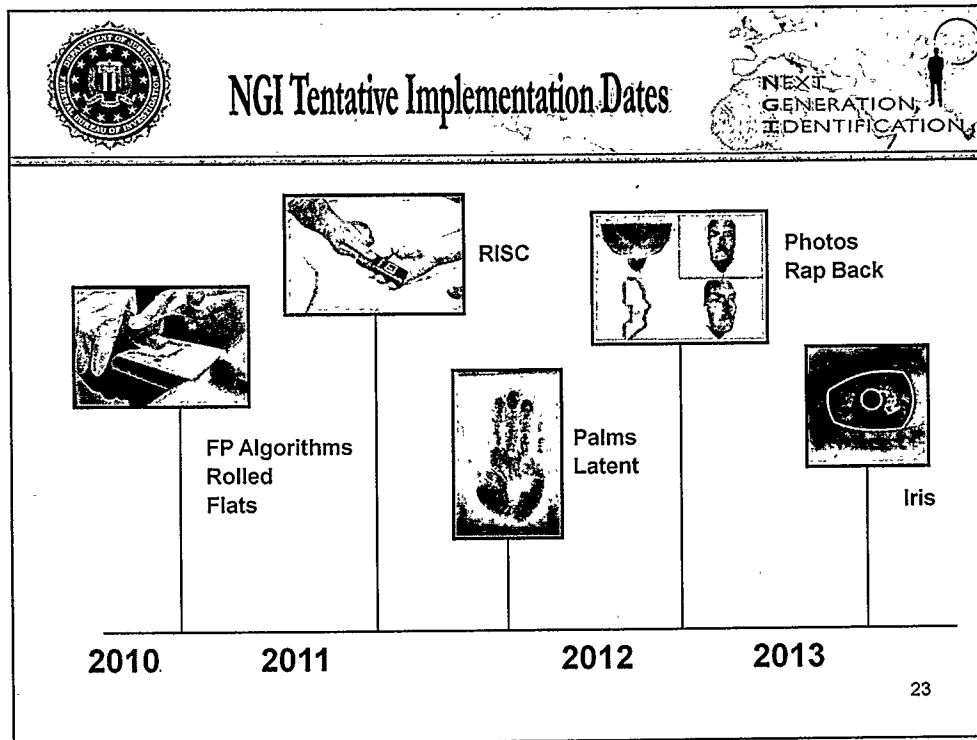
2012 –

### **NCREMENT 4 (2012)**

In Increment 4, all remaining IAFIS functionality, which includes the high priority functionality previously delivered as QUICKWINS, will be migrated to the NGI architecture. At a minimum, IAFIS response and accuracy requirements will be met or exceeded, however, the advanced NGI response and accuracy requirements will be realized in Increment 6. The expansion of the facial and scars, marks, and tattoos search will be included in this increment. The verification transaction will enable users to submit a transaction to confirm an identity based on a one-to-one comparison.

The EIR will be operational supporting the unique identity concept and Rap Back capability. As a new feature, the Rap Back Service will provide authorized criminal justice and non-criminal justice users the capability to receive subsequent notification of criminal activity posted to an enrolled individual's record.

Additionally, disposition reporting via the CJIS WAN will be included with this increment as will the shared services to provide Department of Homeland Security (DHS) interoperability.



Reflected on this slide are the TENTATIVE implementation dates preceded by a series of biometric trade studies.

#### 2010

Increment 1 - Increased accuracy of fingerprint search results & provide better support for processing flat (this directly impacts Biometric Interoperability since all fingerprint submissions are flats) and less than ten fingerprint submission

#### 2011

Increment 2 – RISC

Increment 3 – Palm Print Repository; Additional Latent functionality

#### 2012

Increment 4 – Photo repository of scars, marks, and tattoos; RAP Back functionality  
Biometric Interoperability

- Transition from IAFIS Shared Services to NGI Shared Services
- Increased capacity, improved response times, and improved flat fingerprint processing

#### 2013

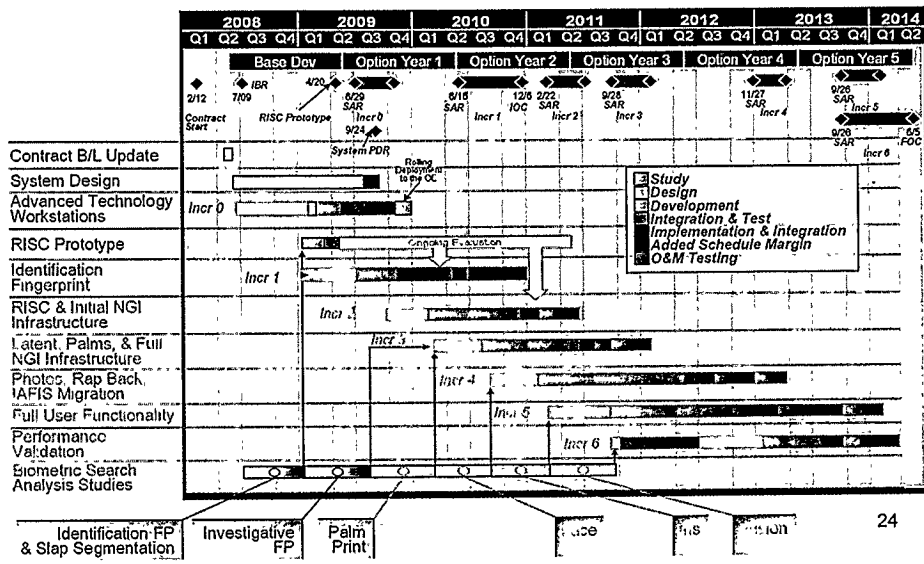
Increment 5 – Iris Repository





# Projected Implementation Schedule

NEXT GENERATION IDENTIFICATION



TENTATIVE

## **Areas of Uncertainty**

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### **3. Rapback**

- Issue resolved-linkage between systems
  - Initial subject comparison and review
  - Establish links between databases
  - New IAFIS adds result in notification
  - New IDENT adds result in notification

### **4. Responses-Immigration Summary Sheet**

### **5. Customs and Border Protection**

- Extent of search
- What is returned
- How quickly?

### **6. Common (dual) Customers**



# Plan Summary

Proposed Incremental Deliveries



	FY06	FY07	FY08	FY09
Shared Data	iDSM Development	Add pilot sites	Search all IAFIS Criminal transactions	
	iDSM Deployment	Add IVF records		
	Pilot iDSM with Boston PD	Add KST records	Search limited IAFIS civil transactions	
		Zero ridge count fix		
		Pilot Immigration Data Response		
		Complete Shared Data Element		
Shared Services		Expand DOS Pilot	Single request searches IAFIS&IDENT	Provide immediate Risk Assessment
		15-minute response to DOS	Full CMF and IDENT repositories searched	KST Tier 2 & 3 RISC Prototype
			Initial linking of IDENT and IAFIS records	Response times based on business need
			Automated latent searches for IAFIS & IDENT	Increase IAFIS Search Capacity/Accuracy
			IVF Special Processing Flag	Verification Service
			Pilot Immigration Data Response	Full Deployment of IDR
				Support full transaction volume and repository size
				Additional repositories added (international)
				IAFIS Civil Searches and Rap Back
	iDSM (2/6/06 - 9/3/06)	IOC (9/4/06 - 7/08)		



# Plan Summary

Proposed Incremental Deliveries



Shared Data

Shared Services

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		Complete Shared Data Element		
Shared Services		Expand DOS Pilot	Single request searches IAFIS&IDENT	Provide immediate Risk Assessment
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# Program Initiatives

- Multi-modal Framework - Advancement of integration strategies and indexing of additional biometric data that will provide the framework for a future multi-modal system to facilitate biometric fusion identification techniques. This framework will be expandable, scalable and flexible to accommodate new technologies and biometric standards.
- Advanced Fingerprint Identification Technology including the Enhanced Terrorist Identification Service (ETIS) - Increase IAFIS processing capacity, storage capacity, & accuracy, decrease response times, provide new processing capability, rapid terrorist/wanted person fingerprint check (ETIS).
- QC Automation Functionality - Automate manual Quality Check (QC) processes and provide quicker responses and consistency.
- Interstate Photo System - Allow photo submissions independent of arrest, bulk submissions, photos other than facial, photos with civil submissions, and multi-modal potential.
- Disposition Reporting Improvements - Allow electronic submissions via CJIS WAN using EFTS and III message formats, modernization of the Machine Readable Data (MRD) process, direct Federal Court submissions.
- Enhanced IAFIS Repository - New capabilities for civil records, civil record consolidation, Rap Back Service, multi-modal potential.
- National Palm Print System (NPPS) - Receive, store, and search palm prints, allow bulk submissions, search unsolved latent file, multi-modal functionality.

Slide 28

## Enhanced IAFIS Repository

- Current Functionality
  - Criminal And Civil – 2 Logical Areas
  - Unable To Seamlessly Move Data Between Files
- New Functionality
  - New Capabilities For Civil Records
  - Civil Record Consolidation
  - Rap Back Service
  - Multi-modal Potential
- Benefits
  - Notify Responsible Agency Regarding Criminal Offenses Of Individuals In Sensitive Positions
  - Automatically Allows For Transition Of Files Between Civil And Criminal Repositories
  - Increases Repository Capacity

Slide 34



**NGI**

## **Capabilities**

- **Advanced Fingerprint Identification Technology**
  - Increase existing IAFIS functions: Capacity, Storage, & Accuracy
  - Enhance Latent Processing Services
  - Create the RISC
- **Enhanced IAFIS Repository**
  - Utilize the civil file for ten-print searching purposes
  - Provide Iris services
  - Provide Rap Back Services
  - Five additional repositories
- **National Palm Print System**
  - Establish a Palm Print Repository with latent functionality

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•**Quality Check (QC) Automation-** The Quality Check function of IAFIS is one of the first steps in IAFIS tenprint processing in which textual information is reviewed. At one point in time 98% of all transactions required a manual review. As of July 1, 2007, Auto QC was implemented and has reduced the manual processing time from an average of 38 seconds to an average of .75 seconds.

•**Interstate Photo System (IPS) or Mugshots -** The IPS capability will enhance the enrollment of photos, the retrieval capability of photos and provide additional search capabilities of photo repositories (including SMT photos) using biographical data and/or facial recognition technology.

•**Disposition Reporting Improvements –** Approximately 46% of our records contain dispositions. Therefore, this initiative proposes the development of four enhancements as alternatives for the submission of disposition information: Submissions Via CJIS WAN; Submissions Via III; Modernization of our magnetic tape based Machine Readable Data (MRD) Process; and Direct Federal Court Submissions. A portion of this modernization began on 9/2/07 for existing MRD users.



## Dependencies

- DHS Transition to 10-Print

- High-level interoperability requirement is for DHS and DOS to use 10-slapped prints for enrollment and two to 10 prints for verification.

- FBI's Next Generation Identification (NGI)

- NGI will provide faster, more efficient IAFIS identification processing and an enhanced IAFIS repository

- Response times
    - Search capacity
    - RAP Back



# Objectives

Objective 1 - Enhance Fingerprint Services

Objective 2 - RISC/ITF

Objective 3 - Latent Services

Objective 4 - Palmprint Services

Objective 5 - Disposition Reporting Services

Objective 6 - Identity Management Services

Objective 7 - Rap Back Services

Objective 8 - Photo Services

Objective 9 - Face Recognition Services

Objective 10 - Iris Services

Objective 11 - III Legacy Services

Objective 12 - Interoperability External Links Services

Objective 13 - Repository & Infrastructure

Objective 14 - Data Conversion

July 5, 2009

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## Interoperability Capabilities Off-Site Meeting Agenda



### DAY 2

- Review and discuss expected additional IOC capabilities (cont'd from Day 1)
  - 10-Print Full Deployment
    - Primary response time
    - TPRS for secondary referrals from primary
    - Transaction capacity
  - Flats for criminal justice (beyond POE Primary)
    - Border Patrol request for search only
- Transaction Volume Review/Discussion (2008, 2009 & 2010, 2010+)
  - What does TVS mean to each Department?
  - FBI searches to IDENT
  - DHS searches to IAFIS
  - Volume
  - Response times
  - TVS versus Anticipated
- Storage of EID for Shared Data
- Biometrics with hit notifications
  - Rap Back for IDENT stakeholders
- COOP
- Automated Shared Data updates
- Review the day's progress

## Department Certification Assessment

Stakeholder Buy-In and Value	
Certification Statement	2. Program sponsor and user organizations are identified, appropriately engaged, and have demonstrated buy-in to the program.
PMO Self-Assessment	<ul style="list-style-type: none"> <li>The Executive Program Sponsor is Executive Assistant Director Louis E. Grever of the FBI Science and Technology Branch.</li> <li>NGIPO provided support for the March 2010 meeting of the Rap Back Service Task Force.</li> <li>Advisory Process and Compact Council Process include participation in the Increment 2 Preliminary Design Review held January 26-28, 2010 and Critical Design Review held April 20-22, 2010. Representatives from APB and Compact Council were invited and represented.</li> <li>NGI has a change management system to manage changes to scope, costs, schedule, and risk. NGI Program established a two-tier change management process: NGI Executive Change Control Board (ECCB) and NGI Technical Review Board (TRB).</li> </ul> <p>As an example of NGI's stakeholder involvement and communication, contact was made during 2010 with the following entities: Department of Defense (DoD); the Biometric Task Force; REACH Conference; the Facial Identification Scientific Working Group; CJIS Systems Officers from all states; and the Compact Council Standards Committee.</p> <ul style="list-style-type: none"> <li>Collaborated with the DoD to identify and resolve potential issues with their participation in the RISC Pilot MOU. Obtained signatures from DoD and CJIS to complete the MOU. MOU's were also signed for the states of Georgia and California for future participation in the RISC.</li> <li>Participated in 2010 APB meetings providing discussion on EBTS, Iris, Latent, and Rap Back services.</li> <li>Participated in the 2010 Compact Council meetings providing discussion on NGI updates, Transition to Unique Identifying Number, and Recommendations for Advising Civil Applicants of Privacy Act Notices.</li> </ul>
Department Assessment	
Qualifiers	



## Information Services



- **Information** – The IAFIS service that provides specific biographic or biometric information on an individual.

- Biometric Image Retrieval
- Biometric Features Retrieval
- Biometric Audit Trail Retrieval
- Biometric Information Retrieval
- Identity History Request
- Certification File Request
- Rap Back Subscription List Request
- Rap Back Rap Sheet Request

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## *Enhanced IAFIS Repository*



- **Functionality**
  - Provide Identity Management Services
  - Provide Iris Services
  - Provide Rap Back Services
  - Expand Repository Infrastructure

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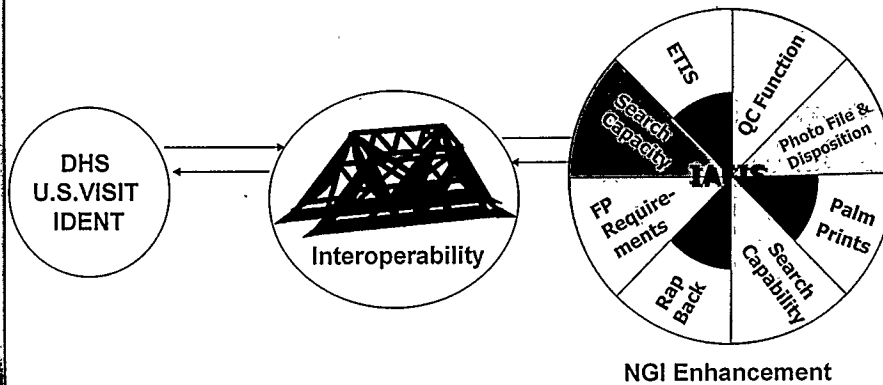
This slide refers to the Enhanced IAFIS Repository.

- Currently, the IAFIS civil file functionality is very limited. There is **no capability** for authorized agencies to **search the civil file**...and there is **no method** for the CJIS Division to **modify or locate multiple submissions** that may exist for the same individual.
- The Enhanced Repository will **combine records** from the **civil, criminal, and new repositories** into an interoperable repository tied together by a unique identity reference
- Iris services** will be a new biometric modality supported by the Enhanced IAFIS Repository. This capability will **offer** users the **ability to enroll Iris images** into the system, **search** against the Iris repositories and **retrieve images**.
- This capability will also deliver a **Rap Back Service** which will provide **authorized users** the ability to obtain an **automatic notification** when an **enrolled subject has selected activities occurring on his/her record**. An example of this would be a person holding a position of trust such as a school teacher.
- The EIR capability will also **expand the repository** infrastructure to meet the challenges of a multimodal framework and new biometric modalities.

## NGI and Interoperability

- Commonalities – NGI capabilities that will benefit Interoperability
  - Capability to partition the database for segmented searches of wanted persons and known or suspected terrorists (ETIS).
  - Rap Back Service (VISAS).
  - Flat fingerprint processing.
  - More accurate CHRI Database.
  - Improved IAFIS speed and accuracy.
- Differences – Capabilities NGI does not immediately deliver that are required for Interoperability
  - Increased storage capacity.
  - Increased availability.
  - Establish mechanism to share data real-time with reciprocal exchange of information.

# IAFIS/NGI/Interoperability Interrelationship





**Interim data sharing – iDSM, deployed in 2006 :**

- Interoperability prototype with FBI operational September 2006
  - Upon booking by state/local agency ICE automatically notified of previous immigration violators (Expedited Removals and Visa Denials) and allows for DHS decision on further action.
  - Provides DHS access to all want and warrant biometric data in near real-time; Wants and Warrants and Known Suspected Terrorists
- Pilot sites operational – Boston Police Department, Dallas County Sheriff's Office, Office of Personnel Management, Harris County Sheriff's Office, TX (Houston) and DOD

**Initial Operating Capability- IOC (2008):**

- Initial deployment of Composite Model with Separate Image Repository (CMSIR)
  - Shared Data Component- Each agency provides access to a copy of "high priority" fingerprints.
  - Shared Services Component- Each agency submits fingerprint transactions to the other agency for search of that agency's complete data.

**Full Operating Capability- FOC (2010):**

- Built on CMSIR to add additional shared service capabilities
  - Ability to fully search IAFIS and IDENT for all approved CJIS and DHS stakeholders
  - Improved accuracy, volume, and response times
  - Rap Back Functionality

## **IAFIS Interoperability Requirements**

- **Provide New Functionality**

- Automated Updates between Systems
- Civil and Criminal File Linking
- Response format with most recent information listed first
- DHS Biometric Unique Identifier added to IAFIS
- Capture multiple biographic fields
- Return photo with response
- Identify rolled, flats, slaps, latents
- Identify why a record was changed
- RapBack

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# Principles

- **Provide New Functionality**

- RapBack
- Levels of Service
- Response Times
- Automated Updates between Systems
- Civil and Criminal File Linking
- Response format with most recent information listed first
- Enumerator added to III/NCIC
- Capture multiple biographic fields
- Return photo with response
- Identify rolled, flats, slaps, latents
- Identify why a record was changed

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# IDENT Overview

## > DHS Is Large IAFIS User

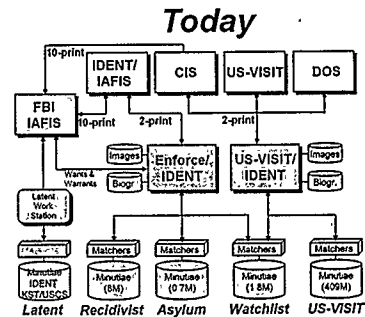
- 1,057 ORIs
- 5,340,935 Transactions (2005)
  - 2,345,987 (Criminal)
  - 2,904,948 (Civil)

## > Significant Positive Impact For Data Sharing

- >200K IAFIS Hits for Criminal Trxs (2005)
- >35K IDENT Hits Against Wants & Warrants (Since 2002)

## > New Enhancements Will Expand and Improve Sharing

- Transition to 10-Print/Interoperability
- Unified IDENT
- Pilot Data Sharing (iDSM)
  - Expungements
  - Rap Back



## **IAFIS Interoperability Requirements**

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## **Next Generation Identification Capabilities**

- **Advanced Fingerprint Identification Technology**
  - Increase existing IAFIS functions: Capacity, Storage, & Accuracy
  - Enhance Latent Processing Services
  - Create the Repository for Individuals of Special Concern (RISC)
- **Enhanced IAFIS Repository**
  - Utilize the civil file for ten-print searching purposes
  - Provide Iris services
  - Provide Rap Back Services
  - Five additional repositories
- **National Palm Print System**
  - Establish a Palm Print Repository with latent functionality


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•**Advanced Fingerprint Identification Technology (AFIT)** - The AFIT capability will enhance the IAFIS fingerprint processing service by improving enrollment (including latent submissions), retrieval, search and maintenance processes, while focusing on increasing the IAFIS processing capacity, storage capacity and accuracy. AFIT will also create a new repository known as the Repository for Individuals of Special Concern (RISC). This will provide a "red/yellow/green/" response from a rapid identification search of a database containing people of special interest such as Known or Suspected Terrorists, Wanted Persons, and Other Persons of Special Interest. -- Responses will be measured in seconds

•**Enhanced IAFIS Repository** - The Enhanced Repository will combine records from the civil, criminal, and new repositories into an interoperable repository tied together by a unique identity reference. This capability will also deliver a Rap Back Service which will provide authorized users the ability to obtain an automatic notification when an enrolled subject has selected activities occurring on his/her record.

•**National Palm Print System** – The National Palm Print System will be a new service provided by NGI which will allow IAFIS to establish an IAFIS Repository that contains palm prints, provide latent palm print search capability, and provide a search of known palm prints against the ULF.





## Next Generation Identification Accomplishments

**Programmatic**

- Director of National Intelligence Briefing (10/24/06)
- LCMD Gate 2 Review Completed Successfully (04/13/07)
- Department Investment Review Board (DIRB) Completed Successfully (05/07/07)
- Acquisition Review Board (ARB) Completed Successfully (05/10/07)
- American Civil Liberties Union (ACLU) Meeting Successfully Completed (07/10/08)

**Acquisition**

- RFP Released (05/30/07)
- General Due Diligence Session Completed (06/21/07 to 06/22/07)
- Individual Due Diligence Sessions Completed (07/6/07 to 07/11/07)
- Proposals received (08/15/07)
- Request for Final Revised Offers (11/29/07 to 12/06/07)
- Receive Final Revised Offers (12/21/07)
- Final Source Selection Evaluation (01/02/08 to 01/15/08)
- Source Selection Advisory Council Briefing (01/18/08)
- Source Selection Authority Briefing (01/23/08)
- Self Assessment for DOJ Certification (02/04/08)
- Consolidated Appropriations Act (2008) Section 210 certification by DOJ Deputy Attorney General (02/11/07)
- Contract Award (02/12/08)
- IT Advisory Council (ITAC) (02/14/08)
- Contract Kickoff Meeting (02/21/08)
- Office of Management and Budget (OMB) NGI Program Review (02/26/08)
- Government Accountability Office (GAO) Issued Stop Work Order due to protest (02/26/08)
- Stop work rescinded (05/07/08)
- Contract Baseline Update (06/09/08)
- First Development and Integration Contractor's Program Management Review (06/13/08)
- Integrated Baseline Review (IBR) Completed (07/09/08 to 07/11/08)

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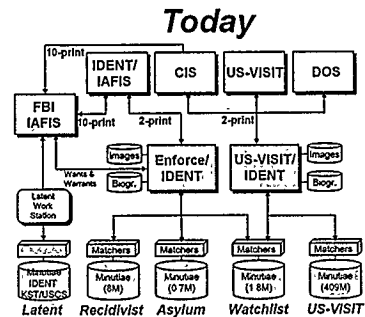
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## **IAFIS Interoperability Requirements**

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- Capture multiple biographic fields
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- Identify rolled, flats, slaps, latents
- Identify why a record was changed
- RapBack

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## Increment 4 Scope



Increment 4 migrates the remaining IAFIS functionality to the NGI infrastructure and provides all-new NGI capability except for Iris functionality. In support of this functionality, all remaining data held in IAFIS will be migrated to the objective NGI data structures prior to Increment 4 activation.

Functionality	NGI Implementation
Rap back	<ul style="list-style-type: none"><li>• Data maintained in Identity repository</li><li>• New maintenance transactions</li><li>• Notifications integrated into appropriate workflows</li></ul>
Facial search	<ul style="list-style-type: none"><li>• L1 ABIS search engine</li><li>• UFW HMI</li><li>• New transactions and workflows</li></ul>
Text-based photo search	<ul style="list-style-type: none"><li>• Extend ad hoc search</li></ul>
Integrated view of identity history	<ul style="list-style-type: none"><li>• Collect, consolidate, and maintain all records of an identity under a common UCN</li><li>• Maintain linkages to common identities held in external systems</li><li>• Report complete history, in accordance with NGI business rules, to contributors</li></ul>
External system link maintenance	<ul style="list-style-type: none"><li>• Data maintained in Identity repository</li><li>• New maintenance transactions</li><li>• Maintenance and notifications integrated into appropriate workflows</li></ul>
International Terrorist File	<ul style="list-style-type: none"><li>• Extend tenprint processing</li></ul>
Immigration Violator File Notifications	<ul style="list-style-type: none"><li>• Maintain IVF status with identities</li><li>• Notify DHS when IVF subjects are encountered</li></ul>
Disposition Improvements (EBTS; update, MRD modernization)	<ul style="list-style-type: none"><li>• New workflows</li></ul>

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## Increment 4 Functional Threads (2 of 3)



### Information

- Fingerprint Image Retrieval Request
- Palmprint Information Retrieval Request
- Identity History Request
- Certification File Request
- Fingerprint Features Retrieval Request
- Other Information Requests
- Rap Back Subscription List Request
- Rap Back Identity History Summary Request
- Fingerprint Audit Trail Retrieval Request
- Fingerprint Information Retrieval Request
- Photo Image Retrieval Request
- Photo Features Retrieval Request
- Photo Audit Trail Retrieval Request
- Photo Information Retrieval Request
- Fingerprint Features Retrieval Request
- Fingerprint Information Retrieval Request
- Identity History Request
- Palmprint Features Retrieval Request
- Palmprint Image Retrieval Request
- Photo Audit Trail Retrieval Request
- Photo Features Retrieval Request
- Photo Image Retrieval Request
- Photo Information Retrieval Request

### Notification

- Flash Notifications
- Rap Back Activity Notification
- Rap Back Renewal Notification
- RISC Notification
- Immigration Violator File Notification
- External System Link Notification
- Want Notifications
- Sexual Offender Registry Notification
- Other Special Interest Notification
- III/NFF File Maintenance Notification
- Unsolved Biometric Notification
- Special Population Cognizant Notification
- IDENT Hit Notification
- Rap Back Activity Notification
- RISC Notification
- Special Population Cognizant Notification
- Unsolved Biometric Notification



## Increment 4 Functional Threads (3 of 3)



### Data Management

- Fingerprint Image Replacement Request
- Master Subject Criminal History (SCH) Record Conversion Request
- Disposition Submission Request
- Disposition Maintenance Request
- Expungement Submission Request
- Civil Deletion Request
- Criminal Record Sealing Request
- Identity Consolidation Request
- Death Notice Request
- Want Maintenance Request
- Flash Submission Request
- Fingerprint Image Update Request
- Sexual Offender Registry (SOR) Maintenance Request
- Computerized Contributor Address (CCA) File Maintenance Request
- Restore Identity History Request
- Statute Retrieval Requests
- Statute Maintenance Request
- Computerized Records Sent File Maintenance Request
- Conflict Resolution Service Request
- Direct Fingerprint Enrollment Request
- Direct Latent Enrollment Request
- Fingerprint Deletion Request
- Direct Supplemental Fingerprint and Palmprint Enrollment Request

### Data Management (Cont.)

- Fingerprint Decision Request
- Direct Rap Back Enrollment Request
- Rap Back Maintenance Request
- Rap Back Subscription Renewal Request
- External System Link Maintenance Request
- External System Link Activity Request
- Identity History Record Modification Request
- Immigration Violator File Maintenance Request
- NFF Criminal Print IDENT Request
- III Record Maintenance Request
- External System Record Maintenance Request
- International Terrorist File Record Maintenance Request
- Special Stops Maintenance Request
- Disposition Maintenance Request
- Disposition Submission Request
- Fingerprint Image Replacement Request
- NFF Criminal Print IDENT Notification
- NFF Criminal Print IDENT Request
- Latent Decision Request
- Special Population Cognizant File Maintenance Request
- Direct Photo Enrollment Request
- Photo Deletion Request
- Photo Decision Request
- Direct Palmprint Enrollment Request

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## Increment 4 Non-functional Threads



- Access Control
- Audit Accountability
- C&A and Security Assessments
- Cascaded Searches
- Configuration Management
- Contingency Planning
- Data Management
- Disposition Response Times
- Disposition Workload
- Fingerprint Response Times
- Fingerprint Verification Services
- Fingerprint Workload
- Identification and Authentication
- Identity History Response Times
- Identity History Workload
- Identity Management Workload
- Latent Response Times
- Latent Workload
- Link Maintenance Completion Response Times
- Maintainability
- Manage Workflow and Work Queues
- Media Protection
- Notification Response Times
- Palmprint Response Times
- System Administration
- System and Communications Protection
- System Availability
- System Backup and Recovery
- System Characteristics
- System Interfaces and Communication Management
- System Status and Reporting (SSR)
- System Training and Analysis Support
- Transaction History
- User Fee Billing Processing
- Palmprint Workload
- Photo Response Times
- Photo Workload
- Policy
- Rap Back Response Times
- Rap Back Workload
- Reliability
- Repository Management
- Risk Assessment
- Supplemental Fingerprint and Palmprint Response Times
- Supplemental Fingerprint and Palmprint Workload
- Supportability
- System & Services Acquisition

*Note: Accuracy requirements are assigned to the Reliability thread. Security requirements are assigned to the following threads: Access Control, Audit Accountability, C&A and Security Assessments, Contingency Planning, Identification & Authentication, Media Protection, Policy, Risk Assessment, System and Services Acquisition, and System and Communications Protection.*



## Build G3: New or Modified Components



Component	Description	Change Required	Transitional
Interface	NGI external facing interface	Enable receipt and transmission of new NGI messages. Remove filters used in Builds G1 and G2.	N
TP & DP HMIs	NGI implementation of tenprint and document processing HMIs	New HMIs to support new NGI Build G3 functionality	N
Facial HMIs	NGI facial search HMIs	New HMIs to support facial search functionality	N
Orchestration	NGI BPEL orchestrations	New orchestrations to support new NGI functions. Update existing orchestrations to include facial functions.	N
MMBF BILCs	NGI business services	Update business services to support new Build G3 functionality. The functionality formerly residing in the Inc 1 B&IS will be integrated into MMBF business services.	N
N'III	III code ported to NGI	Update ported III code to support new Build G3 functionality.	N
Facial Search	NGI Facial Recognition Search subsystem	New deployment of FRS subsystem	N
DAL	NGI data access layer; software that enable NGI services access to NGI data	Additional interfaces required to support new Build G3 functionality. This includes new interfaces for the delivery of composite fingerprint images and cert file records that have moved from IAFIS to NGI in this build	N
IDENTITY	NGI unique identity database	Changes necessary to support new build G3 functionality such as Rap Back	N
NOS	NGI Object Storage; storage of large objects such as transactions and images	Migrate legacy cert file records from ISR. The NOS location of these files will be stored in the IDENTITY database.	N
UFB	Repository for user fee billing data	Extend schema and ETL to include Rap Back billing.	N
UFB HMI	HMI and applications used to generate user bills	Extend bill generation to include Rap Back billing.	N
Offsite DR	Offsite disaster recovery	Implement a live replication of NGI mission critical data at an offsite location	N

Based on NGI-02 IDP Table 2-49





## Orchestration Views for Increment 4 (2 of 2)



OV#	OV Name	Sys Design	Note	Count
25	Statute Retrieval	✓		22
26	Statute Maintenance	✓		23
27	Computerized Records Sent File Maintenance	✓		24
28	Conflict Resolution Service	✓		25
29	SPC File Maintenance	✓	Increment 3	26
30	Other Information	✓		27
31	Rap Back Subscription List	✓		28
32	Biographic Investigation	✓	Increment 3	29
36	Unsolicited Notifications	-	Increment 3	30
COV	Cascaded Search	-	Increment 3 Composite OV	31
COV	Fingerprint Image Comparison	✓	Composite OV	32
COV	Fingerprint Response Generation	-	Composite OV	33
COV	Fingerprint Sequence Check	✓	Composite OV	34
COV	Latent Search Results Processing	-	Increment 3 Composite OV	35
COV	Manual Quality Check	-	Composite OV	36
COV	Perform FIC	✓	Composite OV	37
COV	Perform Fingerprint File Maintenance	-	Composite OV	38
COV	Perform Fingerprint Pre-Search Checks	-	Composite OV	39
COV	Perform Fingerprint Search	-	Composite OV	40
COV	Perform Identity Consolidation	-	Composite OV	41
COV	Special Stops Processing	-	Increment 3 Composite OV	42
COV	Special Stops Review & Release	-	Increment 3 Composite OV	43

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## NGI Increment 4 Overview Information Services (2 of 2)



Information Services Thread	BID	OV #	Orchestration View
3.3.10 Palmprint Features Retrieval Request	✓	14	Biometric Image, Features, or Audit Trail Retrieval
3.3.11 Palmprint Audit Trail Retrieval Request	✓	14	Biometric Image, Features, or Audit Trail Retrieval
3.3.12 Palmprint Information Retrieval Request	✓	7 COV	Biometric Information Retrieval Special Stops Review & Release
3.3.17 Unsolved Latent Audit Trail Retrieval Request	✓	14	Biometric Image, Features, or Audit Trail Retrieval
3.3.18 Identity History Request	✓	N/A COV	Special Stops Review & Release
3.3.19 Certification File Request	✓	7 COV	Biometric Information Retrieval Special Stops Review & Release
3.3.20 Other Information Requests	✓	30	Other Information
3.3.21 Rap Back Subscription List Request	✓	31	Rap Back Subscription List
3.3.22 Rap Back Identity History Summary Request	✓	8	Identity History Retrieval



## NGI Increment 4 Overview Data Management Services (5 of 5)



Data Management Services Thread	BID	OV #	Orchestration View
3.6.46 Rap Back Maintenance Request	✓	5	Records Maintenance
3.6.47 Rap Back Subscription Renewal Request	✓	5	Records Maintenance
3.6.48 External System Link Maintenance Request	✓	21	Identity Update
3.6.49 External System Link Activity Request	✓	16	Verification and Notification
3.6.50 Immigration Violator File Maintenance Request	✓	5	Records Maintenance
3.6.51 NFF Criminal Print Ident Request	✓	16	Verification and Notification



## BIICs Deleted



Fun Area	BIIC Group	BIIC Name	BIIC Type
A&O	IT Security	LDAP Interface Component	Infrastructure Component
A&O	Operational Support	Miss Analysis Info Recording Component	Infrastructure Component
A&O	Operational Support	Miss Analysis Info Retrieval Component	Infrastructure Component
A&O	User Fee Billing	User Fee Maintenance Component	Infrastructure Component
A&O	User Fee Billing	User Fee Reporting Component	Infrastructure Component
MMBF	Repository Management	Maintain External System Link	Business Service
MMBF	Repository Management	Maintain RISC Identities	Business Service
MMBF	Repository Management	Perform RISC Candidate Filtering	Business Service
MMBF	Repository Management	Retrieve Identity Biographics	Business Service
MMBF	Repository Management	Retrieve Identity History	Business Service
MMBF	Repository Management	Retrieve Identity Rap Backs	Business Service
MMBF	Repository Management	Retrieve Identity Repositories	Business Service
MMBF	Repository Management	Retrieve Rap Back Subscription Information	Business Service
MMBF	Repository Management	Validate Rap Back	Business Service
MMBF	Repository Management	Validate UCNs for Identity Consolidation	Business Service
SI	HMI	Remote Latent Cluster Component	Infrastructure Component
SI	HMI	User Fee Maintenance HMI	Infrastructure Component



## Minor BIIC Changes Since Increment 3 CDR (MMBF Description Changes 1 of 3)



BIIC Group	BIIC Name	New Description	Prior Description
Biometric & Identity Search	Evaluate Biometric Image Quality	<p>Provides an evaluation of image quality for a biometric modality.</p> <ul style="list-style-type: none"><li>• Evaluates all submitted image(s) for quality according to a specified algorithm.</li><li>• Returns a quality score for each image.</li><li>• If threshold value(s) are submitted, returns pass/fail indication(s) for each image relative to those thresholds.</li><li>• Evaluation is based solely on the image itself, and does not attempt to evaluate or include the quality of biometric features that may be extracted from the image.</li></ul>	<p>Provides an evaluation of image quality for a biometric modality.</p> <ul style="list-style-type: none"><li>• Evaluates all submitted image(s) for quality according to a specified algorithm.</li><li>• Returns a quality score for each image.</li><li>• Evaluation is based solely on the image itself, and does not attempt to evaluate or include the quality of biometric minutiae that may be extracted from the image.</li></ul>
Biometric Manage & Identity Search	Manage Identity	<p>Provides management of all identity transactions (adds, updates, deletes). Updates include direct enrollment of biometrics as well as other event-specific operations (expungements, identity consolidation, etc).</p> <ul style="list-style-type: none"><li>• Spans all NGI-supported biometric modalities.</li><li>• Encompasses group membership changes (criminal, civil, RISC, etc).</li><li>• If submitted, images are evaluated for image quality; feature extraction and other identity operations only proceed for images at or above a defined minimum quality standard.</li><li>• Ensures synchronization of necessary identity information in NGI repository with biometric caches.</li><li>• Responsible for determination of composite feature sets throughout changes to biometrics information.</li><li>• Adds (updates), or deletes external link identifiers (IIR) and others to an identity based on requests from external (to NGI) systems.</li><li>• Checks for expired Rap Back Subscriptions.</li></ul>	<p>Provides management of all identity transactions (adds, updates, deletes). Updates include direct enrollment of biometrics as well as other event-specific operations (expungements, identity consolidation, etc).</p> <ul style="list-style-type: none"><li>• Spans all NGI-supported biometric modalities.</li><li>• Encompasses group membership changes (criminal, civil, RISC, etc).</li><li>• If submitted, images are evaluated for image quality; feature extraction and other identity operations only proceed for images at or above a defined minimum quality standard.</li><li>• Ensures synchronization of necessary identity information in NGI repository with biometric caches.</li><li>• Responsible for determination of composite feature sets throughout changes to biometrics information.</li></ul>

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## Minor BII Changes Since Increment 3 CDR (MMBF Description Changes 2 of 3)



BII Group	BII Name	New Description	Prior Description
Repository Management	Compose Identity History Summary	Composes an Identity History Summary Response based on data resulting from an identity history retrieval request. The Identity History Summary is created from the summation of the existing identity history data associated with the identity. Compose Identity History may send requests to external systems (e.g., DHS Ident) or to III/NFF states based on what is needed for the thread. It will retrieve the identity history maintained in the NGI database, and then send requests to external systems and III/NFF states, as required by the workflow. Compose Identity History if requested, will indicate in the summary response the event that triggered the Rap Back Activity Notification.	Composes an Identity History Summary Response based on data resulting from an identity history retrieval request. The Identity History Summary is created from the summation of the existing identity history data associated with the identity.
Repository Management	Maintain Special Population Cognizant File	Maintain Special Population Cognizant File provides the mechanism for an Authorized FBI Service Provider to maintain (create/populate/delete) a Special Population Cognizant File. Support the creation of new repositories.	Maintain Special Population Cognizant File provides the mechanism for an Authorized FBI Service Provider (e.g., FBI Latent Examiner) to maintain (create/populate/delete) a Special Population Cognizant File.

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## Minor BII Changes Since Increment 3 CDR (MMBF Description Changes 3 of 3)



BII Group	BII Name	New Description	Prior Description
Repository Management	Merge Response	Combines the information from an External System, including III/NFF, from which NGI has requested information with the information that will be composed for the response to the parent request. This includes the identification of the appropriate parent request. If the parent request is already complete, the service response includes an indicator that the parent service is complete.	Combines the information from an External System, including NFF, from which NGI has requested information with the information that will be composed for the response to the parent request. This includes the identification of the appropriate parent request. If the parent request is already complete, the service response includes an indicator that the parent service is complete.
Repository Management	Retrieve Identity	Performs retrieval or evaluation of Identity related information from an orchestration, such as but not limited to the following: <ul style="list-style-type: none"><li>• Retrieves biographic information.</li><li>• Retrieves investigation record(s) information.</li><li>• Retrieves external system link id(s).</li><li>• Evaluates the existence of UCN(s).</li><li>• Retrieves a list of biometric repositories that contain information associated with an Identity.</li><li>• Retrieves a list of Rap Back subscription information for a given Identity.</li></ul>	Performs retrieval or evaluation of Identity related information such as but not limited to: <ul style="list-style-type: none"><li>• Retrieves biographic compilation information.</li><li>• Retrieves investigation record(s) information.</li><li>• Retrieves Identity History record(s) information maintained by NGI.</li><li>• Retrieves Identity History record(s) information maintained by Authorized Contributors (i.e. III/NFF states).</li><li>• Retrieves external system link id(s).</li><li>• Evaluates the existence of UCN(s).</li><li>• Evaluates the UCN to be kept for automated identity consolidations.</li></ul> Retrieval BII's assume that any information going back to the NGI requestor would be sent first to Compose Response so that the appropriate dissemination rules could be applied.

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## Increment 4 Admin & Operations BILCs (1 of 3)



BILC Group	BILC Name	BILC Type	New*
Data Access	Common Domain Data Access Component	Infrastructure Component	Exp
Data Access	Data Access Layer Component	Infrastructure Component	Exp
IT Security	Account and Profile Management Component	Infrastructure Component	Exp
IT Security	Authentication Component	Infrastructure Component	Exp
IT Security	Authorization Component	Infrastructure Component	Exp
IT Security	Login Support Component	Infrastructure Component	Exp
IT Security	Security Auditing Component	Infrastructure Component	Exp
Message Processing	Common Message Handling Component	Infrastructure Component	Exp
Message Processing	Email Server Component	Infrastructure Component	Exp
Message Processing	Send External System Request	Infrastructure Service	New
Message Processing	Send Notification Service	Infrastructure Service	Exp
Message Processing	Send Response Service	Infrastructure Service	Exp
Message Processing	Transaction Initiation	Infrastructure Service	Exp
Operational Support	Generate PLP Correlation List	Infrastructure Service	Exp
Operational Support	Identity Repository Maintenance Component	Infrastructure Component	New
Operational Support	MOU Maintenance Component	Infrastructure Component	Exp
Operational Support	MOU Verification	Infrastructure Service	Exp
Operational Support	ORI Maintenance Service	Infrastructure Service	Exp
Operational Support	Rap Back Maintenance Component	Infrastructure Component	New
Operational Support	Rule Admin Component	Infrastructure Component	New

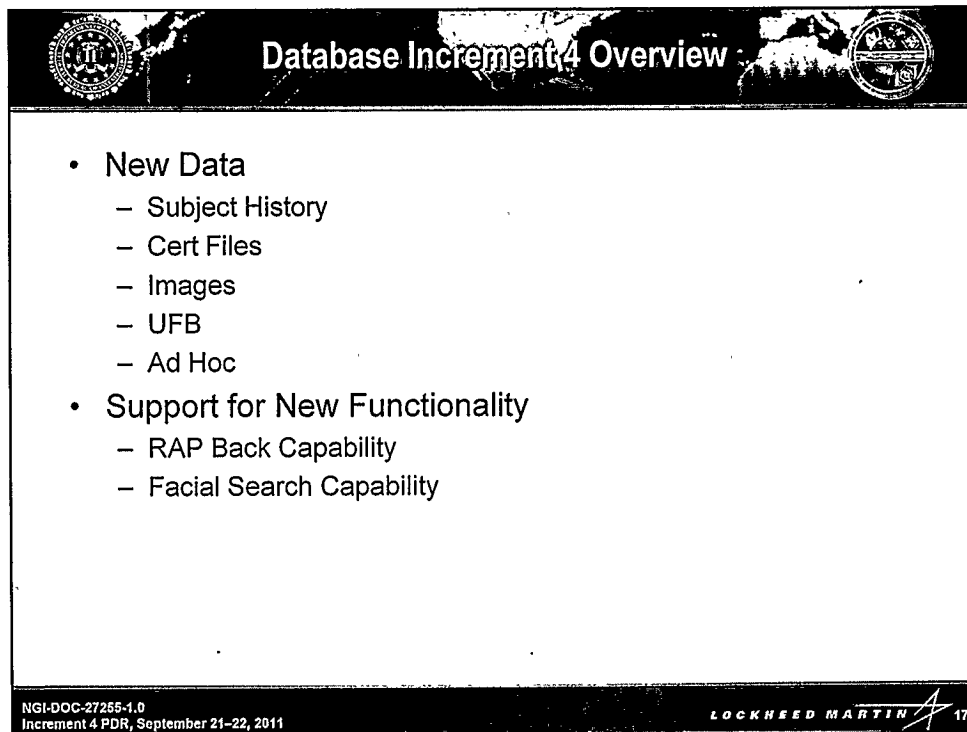
**\*Key:**

- New BILC is new for Increment 4
- Sus BILC is carried forward (sustained) from previous increment
- Exp BILC is expanded in function or scope from previous increment

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The slide features a dark header with the title "Database Increment 4 Overview" in white. On either side of the title are circular logos: the Department of Defense seal on the left and the NSA seal on the right. The main content area is white and contains a bulleted list of features. At the bottom, a dark footer contains technical details on the left and the Lockheed Martin logo with the page number 179 on the right.

### Database Increment 4 Overview

- New Data
  - Subject History
  - Cert Files
  - Images
  - UFB
  - Ad Hoc
- Support for New Functionality
  - RAP Back Capability
  - Facial Search Capability

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## Identity History



- Updates
  - Identity - Microform, Death, NARA, IVF
- Additions
  - Agency Custody History - The entity contains the association of an agency and a custody/supervisory change status within the custody cycle.
  - Arrest - This entity contains arrest information of a person.
  - Charge - This entity contains formal allegation that led to a person's arrest.
  - Court Count Disposition - This entity contains information of court disposition for each individual charge.
  - Court Disposition - This entity contains court disposition information related to an arrest.
  - Custody - This entity defines a custody cycle or supervisory in an arrest cycle and provide current custody cycle status (i.e., whether the custody cycle is active or deleted).
  - Custody History - This entity contains status change history of a custody in a custody cycle.
  - Identity Pointer - This entity contains subject's pointers (State Identification Number(s), FBI pseudo-pointer(s), and, when applicable, a Wanted Person (WP) or Sexual Offender (SX) pointer) and the associated indicators, which tells whether it needs to disseminate the criminal history for the state or whether the state is responsible.
  - Identity Special Process - This entity contains special processing reasons for a given subject.
  - Rap Back Enrollment - This entity contains a subject's enrollment in the Rap Back service. In the event that a criminal or civil submission, disposition, or external system activity identifies an individual with an active Rap Back monitoring flag, NGI/FBI may send Rap back activity notification to the rap Back record owner and designated recipients. NGI will provide the owner of the Rap Back enrollment the ability to request an Identity History Summary for the enrolled individual after receipt of a Rap Back Activity Notification. NGI/FBI will send a Rap Back expiration notification to the Rap Back record owner 30 days prior to the designated subscription expiration date for each Rap back enrollment, with option to renew.
  - Rap Back Recipient - This entity contains a list of other agencies to receive Rap Back notifications.
  - Sexual Offender Registry - This entity contains the sexual offender's data registered with law enforcement agencies, including subject name, registration date, offense case number, registry expiration date (if any), NCIC assigned number, agencies who submitted the registration data and agency whom the subject is registered with.
  - Want - This entity contains information of a 'regular' warrant issued by a court after sufficient evidence is presented or a want (i.e., person of interest) by a law enforcement officer. The information is from NCIC.
  - Want Literal - This entity contains additional information about a specific want.

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## IAFIS/NGI Conceptual Data Model Mapping



IAFIS Conceptual Model Entity Source: IAFIS Database Specification Figure 3-1	NGI Conceptual Model Entity Source: NGI System Design Document Figure 4-14
Subject	Identity
Contributor	Contributor
SOR	SOR
Want	Want
Special Processing	Special Interest
Civil File	Civil History
Biographic Info	Biographic
Biometric	Biometric
Fingerprint	Fingerprint Info
Latent Print	Latent Info
Image	FP Image, Latent Image, Iris Image(N), PP Image(N), Supp FP & PP Image(N), Facial Image, SMI Image(N)
Features	FP Feature, Latent Feature, Iris Feature(N), PP Feature(N), Supp FP & PP Feature(N), Facial Feature(N)
Criminal History File	Criminal History
Photo	Photo Info
Court Disposition	Criminal History
Flash	Criminal History
New Capability	Iris Info
New Capability	Palmpoint Info
New Capability	Supp FP & PP Info
New Capability	Rap Back Subscription
N/A	External System Link (NCIC, III State Databases, NFF State Databases)

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## Increment 4 EBTs TOTs (2 of 5)



NGI Service	Request TOT	Response TOT	NGI User Service
Unsolved Latent Audit Trail Retrieval Request	BATQ	BATR	Information
Fingerprint Audit Trail Retrieval Request	BATQ	BATR	Information
Photo Audit Trail Retrieval Request	BATQ	BATR	Information
Rap Back Identity History Summary Request	RBH	RBHR	Information
Rap Back Subscription List Request	RBS	RBSR	Information
Latent Penetration Query Request	LPNQ	LPNR	Investigation
Latent Repository Statistics Query	LRSQ	LRSR	Investigation
Latent Print Image Investigation Search Request	LFIS	SRL	Investigation
Latent Print Feature Investigation Search Request	LFIS	SRL	Investigation
Facial Recognition Search Request	FRS	SRL	Investigation
Text-Based Facial Photo Search Request	TBS	SRL	Investigation
Text-Based SMT Photo Search Request	TBS	SRL	Investigation
Tenprint Fingerprint Image Investigation Search Request	TPIS	SRT	Investigation

Unchanged from Inc-3 or legacy design  
New Threads/Services in Inc-4

New TOT for EBTs  
Modified TOT



## Increment 4 EBTS TOTs (3 of 5)



NGI Service	Request TOT	Response TOT	NGI User Service
Tenprint Fingerprint Feature Investigation Search Request	TPFS	SRT	Investigation
Tenprint Fingerprint Rap Sheet Search Request	TPRS	SRT	Investigation
External Query History Request (see PR1029)	EQHR	EHRR, EQRR	Investigation
Unsolved Biometric Notification	n/a	ULM (Notification)	Notification
Unsolicited Unsolved Latent Record Delete Notification	n/a	UULD (Notification)	Notification
Unsolicited Hit Notification	n/a	UHN (Notification)	Notification
Special Interest Notification	n/a	SIN	Notification
External System Link Notification	n/a	XLN	Notification
External System Link Failure Notification	n/a	XLN	Notification
Rap Back Activity Notification	n/a	RBA	Notification
Rap Back Renewal Notification	n/a	RBR	Notification
Special Population Cognizant Notification	n/a	SPN	Notification

Unchanged from Inc-3 or legacy design  
New Threads/Services in Inc-4

New TOT for EBTS  
Modified TOT



## Increment 4 EBTS TOTs (5 of 5)



NGI Service	Request TOT	Response TOT	NGI User Service
Direct Palmprint Enrollment Request	FIS	FISR	Data Management
Direct Supplemental Fingerprint and Palmprint Enrollment Request	FIS	FISR	Data Management
Fingerprint Image Replacement Request	FIS	FISR	Data Management
Direct Biometric Enrollment to an SPC Request	SPE	SPER	Data Management
Direct Photo Enrollment	DBE	DBER	Data Management
Direct Rap Back Enrollment	DRE	DRER	Data Management
Disposition Maintenance Request	DSPE	DSPR	Data Management
Disposition Fingerprint Submission Request	FDSP	DSPR	Data Management
External System Link Maintenance Request	EXMAINT	EXMAINTR	Data Management
External System Link Activity Request	EXMAINT	EXMAINTR	Data Management
External System Record Maintenance Request	EXMAINT	EXMAINTR	Data Management
III Record Maintenance Request	IRM	IRMR	Data Management
International Terrorist File Record Maintenance Request	ITFM	ITMR	Data Management
Rap Back Maintenance Request	RBM	RBMR	Data Management

Unchanged from Inc-3 or legacy design  
New Threads/Services in Inc-4

New TOT for EBTS  
Modified TOT



## Summary of Business Process Changes and Impacts (1 of 3)



- New Photo-based Transactions

Impacted Role	Change	Impact
Authorized Contributor & FBI Service Provider	Text-based facial photo search, Facial recognition search, Text-based SMT search	Education on new capabilities
Authorized Contributor	New TOTs	Education on requirements/processing

- Introduction of Rap Back Services

Impacted Role	Change	Impact
Authorized Contributor	Ability to request Rap Back Identity History Summary	Education on new capabilities
	New TOTs	Education on requirements/processing
	Rap Back notifications	Education on new notifications

- New and/or Increase in Notifications

Impacted Role	Change	Impact
Authorized Contributor & FBI Service Provider	New notifications added for Inc 4	Increase in notifications
		Education on triggers
CJIS Customer Service Group		Increase in incoming calls from customers receiving notifications

FEDERAL BUREAU OF INVESTIGATION  
FOI/PA  
DELETED PAGE INFORMATION SHEET  
FOI/PA# 1181716-1

Total Deleted Page(s) = 3

Page 124 ~ Duplicate - See 1181716-1-CJIS-BOX 1 Section 3;

Page 128 ~ Duplicate - 1181716-1-CJIS-BOX 1 Section 3;

Page 226 ~ Referral/Consult;

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# IDENT Overview

## ➤ DHS Is Large IAFIS User

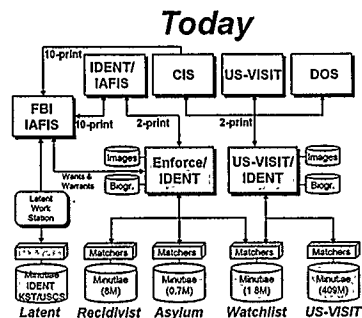
- 1,057 ORIs
- 5,340,935 Transactions (2005)
  - 2,345,987 (Criminal)
  - 2,904,948 (Civil)

## ➤ Significant Positive Impact For Data Sharing

- >200K IAFIS Hits for Criminal Trxs (2005)
- >35K IDENT Hits Against Wants & Warrants (Since 2002)

## ➤ New Enhancements Will Expand and Improve Sharing

- Transition to 10-Print/Interoperability
- Unified IDENT
- Pilot Data Sharing (iDSM)
  - Expungements
  - Rap Back




## **IAFIS Interoperability Requirements**

- **Provide New Functionality**

- Automated Updates between Systems
- Civil and Criminal File Linking
- Response format with most recent information listed first
- DHS Biometric Unique Identifier added to IAFIS
- Capture multiple biographic fields
- Return photo with response
- Identify rolled, flats, slaps, latents
- Identify why a record was changed
- RapBack

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## **Next Generation Identification Quick Wins**

- Quality Check Automation Phase 3
- III Message Key for Disposition Reporting
- MRD to CD Capability
- Automation of MRD to CD
- New Disposition Log
- IAFIS Accuracy Improvements
- Additional Biometric Receipt and Store
- ULF Cascaded Searches
- RISC Rapid Search Prototype

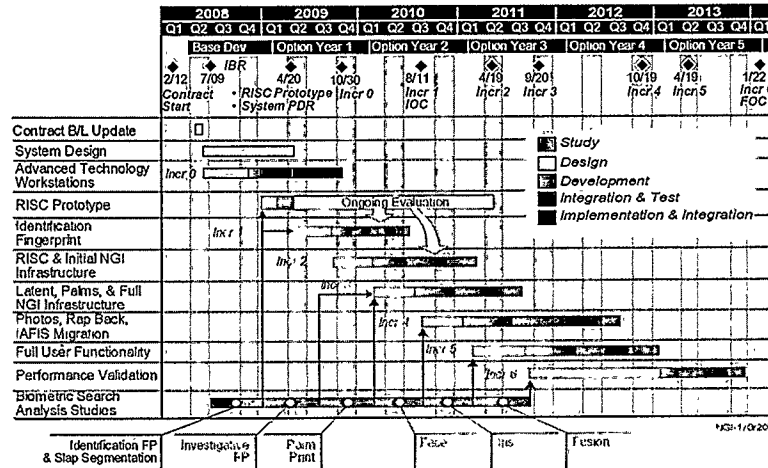
51

•**Advanced Fingerprint Identification Technology (AFIT)** - The AFIT capability will enhance the IAFS fingerprint processing service by improving enrollment (including latent submissions), retrieval, search and maintenance processes, while focusing on increasing the IAFIS processing capacity, storage capacity and accuracy. AFIT will also create a new repository known as the Repository for Individuals of Special Concern (RISC). This will provide a "red/yellow/green/" response from a rapid identification search of a database containing people of special interest such as Known or Suspected Terrorists, Wanted Persons, and Other Persons of Special Interest. -- Responses will be measured in seconds

•**Enhanced IAFIS Repository** - The Enhanced Repository will combine records from the civil, criminal, and new repositories into an interoperable repository tied together by a unique identity reference. This capability will also deliver a Rap Back Service which will provide authorized users the ability to obtain an automatic notification when an enrolled subject has selected activities occurring on his/her record.

•**National Palm Print System** – The National Palm Print System will be a new service provided by NGI which will allow IAFIS to establish an IAFIS Repository that contains palm prints, provide latent palm print search capability, and provide a search of known palm prints against the ULF.

# Tentative Incremental Time Line



## *NGI Capabilities*

- **Enhanced IAFIS Repository**
  - Utilize the civil file for tenprint searching purposes
  - Provide Iris services
  - Provide Rap Back Services
- **National Palm Print System**
  - Establish a Palmprint Repository with latent functionality
- **Advanced Fingerprint Identification Technology**
  - Faster fingerprint Processing
  - Increase search accuracy
  - Create the Repository for Individuals of Special Concern (RISC)

9

## Next Generation Identification

- Next Generation Identification (NGI) will protect the United States by providing proactive investigative and intelligence biometric capabilities to Homeland Security, Law Enforcement and Defense communities throughout the nation. It will capitalize on the nexus between law enforcement and counter terrorism through biometric information sharing to proactively disrupt terrorist activities and improve intelligence. Citizens in positions of trust will be flagged for rap back to protect national security. Flat fingerprints will be processed through wireless access in real-time with rapid notification back to front line law enforcement officers. Comprehensive criminal history information will be fused with multi-modal biometrics to aid investigations by accessing biometric databases across the US Government.

Slide 23

# Program Initiatives

- Advanced Fingerprint Identification Technology including the Enhanced Terrorist Identification Service (ETIS) - Increase IAFIS processing capacity, storage capacity, & accuracy, decrease response times, provide new processing capability, rapid terrorist/wanted person fingerprint check (ETIS).
- QC Automation Functionality - Automate manual Quality Check (QC) processes and provide quicker responses and consistency.
- Interstate Photo System - Allow photo submissions independent of arrest, bulk submissions, photos other than facial, photos with civil submissions, and multi-modal potential.
- Disposition Reporting Improvements -- Allow electronic submissions via CJIS WAN using EFTS and III message formats, modernization of the Machine Readable Data (MRD) process, direct Federal Court submissions.
- Enhanced IAFIS Repository - New capabilities for civil records, civil record consolidation, Rap Back Service, multi-modal potential.
- National Palm Print System (NPPS) - Receive, store, and search palm prints, allow bulk submissions, search unsolved latent file, multi-modal functionality.

Slide 26

# Enhanced IAFIS Repository

- ⌘ Current Functionality
  - Criminal And Civil – 2 Logical Areas
  - Unable To Seamlessly Move Data Between Files
- ⌘ New Functionality
  - New Capabilities For Civil Records
  - Civil Record Consolidation
  - Rap Back Service
  - Multi-modal Potential
- ⌘ Benefits
  - Notify Responsible Agency Regarding Criminal Offenses Of Individuals In Sensitive Positions
  - Automatically Allows For Transition Of Files Between Civil And Criminal Repositories
  - Increases Repository Capacity

Slide 30



## **Full Interoperability**

- Concept of Operations signed 02/16/2006
- Capabilities
  - Dedicated Biometric Search Capability
  - Linking of Repository Records
  - Global Critical Data Set
  - NGI Initiatives supporting Interoperability
    - Advanced Fingerprint Identification Technology (AFIT)
    - RAP Back
    - Photo
- Continuing to work with DHS and DOS
  - Policy issues/MOU
  - Incremental deliverables by Fiscal Year
  - Automated response from IDENT



## Biometric Interoperability Link to NGI



- Biometric Interoperability objectives were identified through concept development and tied into the core IAFIS/NGI services
- Biometric Interoperability and NGI Requirements merged
- Biometric Interoperability is dependent on the NGI to achieve full Interoperability with IDENT
- Biometric Interoperability objectives linked to NGI services
  - External Biometric Search Capability – NGI EIR Capability
  - External Repository Record Link – NGI EIR Capability
  - Enhance IAFIS to support Interoperability – NGI AFIT Capability
    - Improved response times
    - Improved IAFIS accuracy
    - Enhanced IAFIS service availability

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**Enhanced IAFIS Repository (EIR)** – The EIR capability will allow compatibility between existing civil and criminal repositories as well as new repositories by providing single identity management. The EIR will support the search and retrieval services for new biometric modalities such as iris images, and provide administrative functions for special population files. As a new feature, a Rap Back Service will support an authorized contributor's ability to enroll identities and receive notifications regarding subjects based on selected activities.

**Advanced Fingerprint Identification Technology (AFIT)** – The AFIT objectives enhance the IAFIS fingerprint and latent processing services, increase the accuracy and daily fingerprint processing capacity of the IAFIS, and improve the IAFIS availability. New functionality will include a rapid fingerprint search of the Repository for Individuals of Special Concern (RISC). The RISC search will provide a rapid identification search of a limited population using a minimum of two rolled or flat fingerprints. The limited population is anticipated to contain records for Wanted Persons, Known or Suspected Terrorists, Sex Offender Registry Subjects, and other persons of special interest.

Notional FBI Interoperability Development Strategy							
FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
<b>Shared Services</b>							
		NGI Contract Award					
		<b>Increment 1</b> • CBP Pilot for POE		O&M			
			<b>Increment 2</b>		O&M		
			• Initial linking of IDENT and IAFIS records • Automated latent searches for IAFIS and IDENT • Implement IVF Special Processing Flag - • Increase record sets in RISC • Improve response times based on business need • Increase IAFIS search capacity for Interoperability submissions • Initial Verification Service • Continue piloting IDR • Increased single searching of IDENT/IAFIS	<b>Increment 3</b>		O&M	
					<b>Increment 4</b>		O&M
					• Increase search capacity for Interoperability submissions • Provide access to IAFIS Civil File and Rap Back for Interoperability partners • Complete linking of IDENT and IAFIS records		
						<b>Increment 5</b>	
						• Increase search capacity for Interoperability submissions • 30-Second CMF search for CBP	
<b>Interoperability Quick Wins</b>							
	• AFIS Uplift • RISC Prototype - Build 1	• Initial implementation of single search request (IAFIS/IDENT) • Increase search capacity • Ability to provide automated notification to LESC and contributing agencies • RISC Prototype - Build 2 • Deploy Network Secure Zone					
<b>Shared Data</b>			O&M				
• iDSM Development • iDSM Deployment • Pilot iDSM with Boston PD	• Add pilot sites • Add short-term IVF to IAFIS • Add KST records • Enhance iDSM • Design NOE • Develop Unique Identifier	• Automated notification on iDSM hits • Search all IAFIS Criminal transactions • Search limited IAFIS civil transactions • Deploy Unique Identifier • Real-time audits • Deploy full NOE • Deploy separate image slice					
					<b>DRAFT</b>	Revision 1.0 June 15, 2007	

Increased search capacity in Increment 1 will be provided by Interoperability through an uplift of AFIS:



## **Full Interoperability**

- Concept of Operations signed 02/16/2006
- Capabilities
  - Dedicated Biometric Search Capability
  - Linking of Repository Records
  - Global Critical Data Set
  - NCI Initiatives supporting Interoperability
    - Advanced Fingerprint Identification Technology (AFIT)
    - RAP Back
    - Photo
- Continuing to work with DHS and DOS
  - Policy issues/MOU
  - Incremental deliverables by Fiscal Year
  - Automated response from IDENT

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## NGI Current Challenges and Benefits

### Enhanced IAFIS Repository Initiative

#### **Current Challenges**

- Content and format of criminal and civil repositories differ; it is difficult to transfer records between them.
- Civil repository submissions are stored chronologically; multiple submissions for an individual result in multiple unlinked datasets.
- The civil repository is difficult to search due to structural difficulties; Attempts at applying for employment under a second identity sometimes go undetected.
- No cross-reference between civil and criminal repositories

#### **Benefits**

- Consolidate multiple individual submissions for an individual into a single dataset
- Interoperability between civil and criminal repositories
- Will extend search, storage, file maintenance, and response generation to the civil repository
- Civil repository will be searched when criminal data is submitted on an individual who has no criminal history. Civil data found in the repository will be consolidated with the newly submitted criminal data.
- Rap Back, new civil repository service

### Enhanced IAFIS Repository Initiative

*FBI CJIS has undertaken redesign of the IAFIS criminal and civil history repositories. The fingerprint image and feature repositories need to meet customer demands for new and improved services. New services include authorized searches of the civil repository and notification of arrest actions on enrolled employees subsequent to a background check.*

### **CURRENT CHALLENGES**

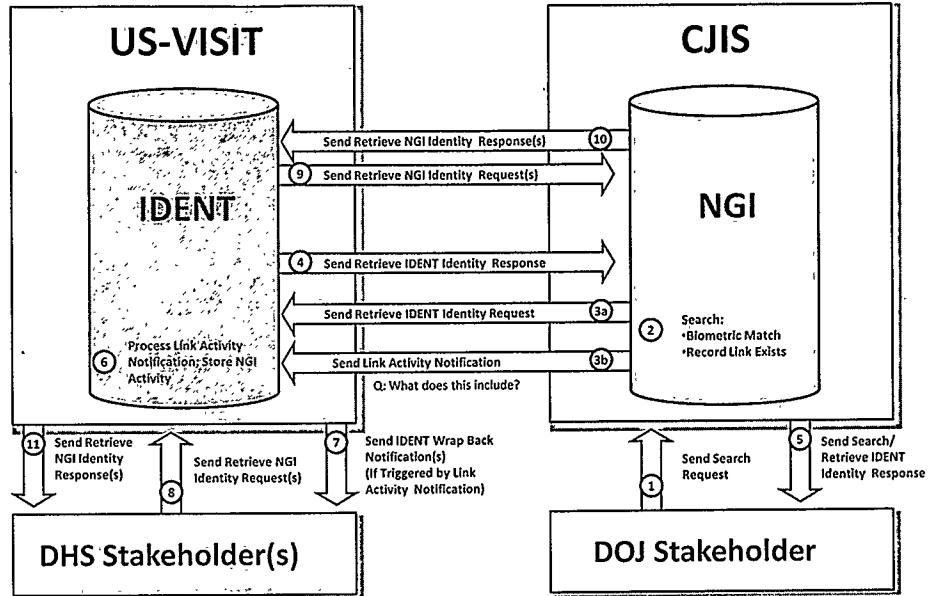
The IAFIS repositories are currently comprised of multiple data sets, including criminal history, fingerprint images, fingerprint features, and like data for civil history. The civil repository consists of civil fingerprint and biographical data normally submitted to obtain background checks for employment, licensing, or security clearances. The content and format of the criminal and civil repositories, and the way they are processed, differ; it is difficult to transfer records between them. Furthermore, submissions to the civil repository are stored chronologically, so that multiple submissions for an individual result in multiple unlinked datasets. Because of these structural difficulties the civil repository is difficult to search; attempts at applying for employment under a second identity sometimes go undetected. There is no cross-reference between the civil and criminal repositories. Once a background check is completed on a subject, their employer may not be notified of subsequent arrest actions until the next routine background check.

### **BENEFITS**

The initiative will restructure the civil repository to consolidate multiple submissions for an individual into a single dataset, assure format and processing interoperability between the civil and criminal repositories. The initiative will also extend search, storage, file maintenance, and response generation services normally available for the criminal repository to the civil repository. Furthermore, whenever criminal activity data is submitted on an individual who has no recorded criminal history, the civil repository will be searched. Any civil data found in the repository will be consolidated with the newly submitted criminal data.

This initiative will also introduce a new civil repository service referred to as Rap Back. This service allows an authorized contributor to flag an employee's civil record so that subsequent criminal activity by the employee will generate a notice back to the subscriber. This process will allow the contributor to detect risks that arise between routine background checks. This service is aimed at limiting security access for people of interest who may pose a threat to national security or the well being of others.

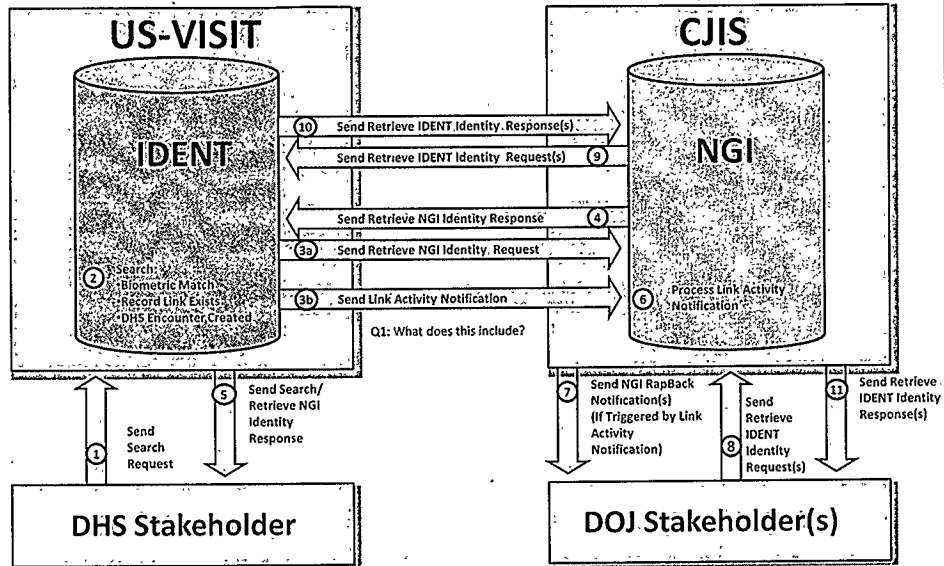
## #2 - DOJ Stakeholder's Search Matches in NGI: Subsequent Link Activity





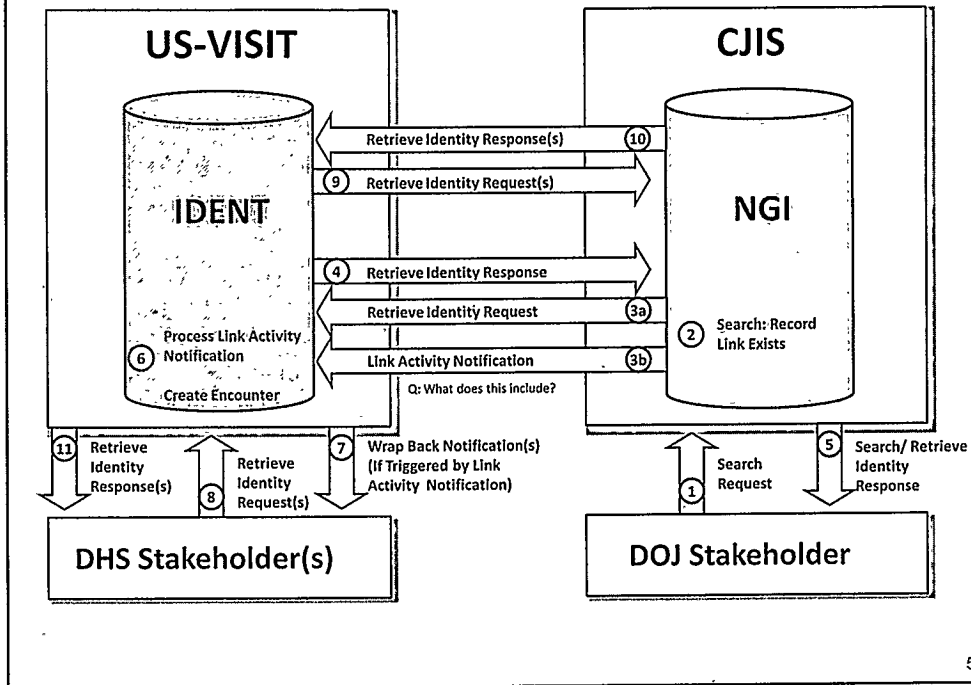
General Scenario (NGI to IDENT)	#2	DOJ Stakeholder's Search Matches in NGI: Subsequent Link Activity
Step	Description	
1.	DOJ Stakeholder submits an interoperability Search Request(of NGI and IDENT) to NGI.	
2.	NGI conducts a search. There is a biometric match to an existing linked recordd.	
3a.	NGI sends the Retrieve IDENT Identity Request to IDENT.	
3b.	NGI sends the Link Activity Notification to IDENT.	
4.	IDENT sends the Retrieve IDENT Identity Response to NGI.	
5.	NGI sends the Search / Retrieve IDENT Identity Response to the DOJ Stakeholder.	
6.	IDENT processes the Link Activity Notification and stores NGI Activity in IDENT.	
7.	IDENT Wrap Back Notification(s) may be triggered by the Link Activity Notification.	
8.	DHS Stakeholder(s) may choose to submit Retrieve NGI Identity Request(s) to IDENT.	
9.	IDENT sends Retrieve NGI Identity Request(s) to NGI.	
10.	NGI sends Retrieve NGI Identity Response(s) to IDENT.	
11.	IDENT sends Retrieve NGI Identity Response(s) to the DHS Stakeholder(s).	
Open Issues, Notes, or Questions:	Q1:What does the Link Activity Notification include?	

### #3 - DHS Stakeholder's Search Matches in IDENT: Subsequent Link Activity

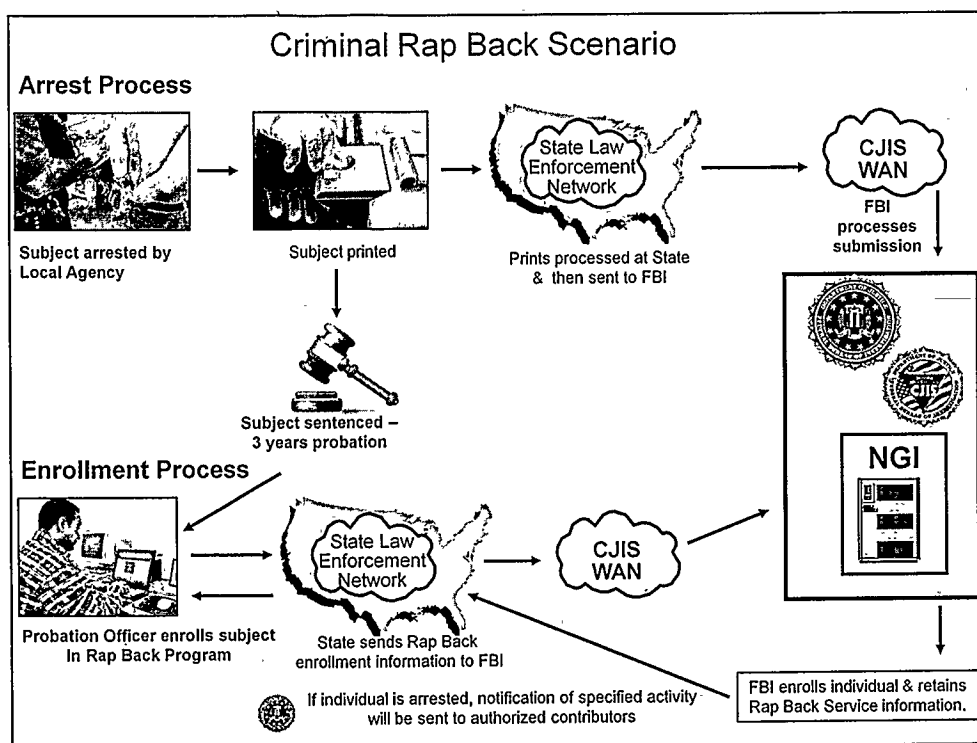


General Scenario (IDENT to NGI)	#3	DHS Stakeholder's Search Matches in IDENT: Subsequent Link Activity
Step	Description	
1.	A DHS Stakeholder submits an interoperability search request (of IDENT and NGI) to IDENT.	
2.	IDENT processes a full gallery search of IDENT. There is a biometric match to an existing linked record.	
3a.	IDENT sends the Retrieve NGI Identity Request (with or without prints depending on the DOJ Stakeholder) to NGI.	
3b.	IDENT sends the Link Activity Notification to NGI.	
4.	NGI sends the Retrieve NGI Identity Response to IDENT.	
5.	IDENT sends the Search/Retrieve NGI Identity Response to the DHS Stakeholder.	
6.	NGI processes the Link Activity Notification.	
7.	NGI RapBack Notification(s) may be triggered by the Link Activity Notification.	
8.	DOJ Stakeholder(s) may choose to submit a Retrieve IDENT Identity Request(s) to NGI.	
9.	NGI sends a Retrieve IDENT Identity Request(s) to IDENT.	
10.	IDENT sends a Retrieve IDENT Identity Response(s) to NGI.	
11.	NGI sends Retrieve IDENT Identity Response(s) to the DHS Stakeholder(s).	
Open Issues, Notes, or Questions:	Q1:What data elements should be included in the Link Activity Notification include? Note: In Step #3a , the Retrieve NGI Identity Request and the Link Activity Notification are independent processes. The Retrieve NGI Identity Request could be sent without new activity on a linked record (e.g. When DOS initiates an RCH)	

## #2 - DOJ Stakeholder Search Matches on a Linked Record in NGI

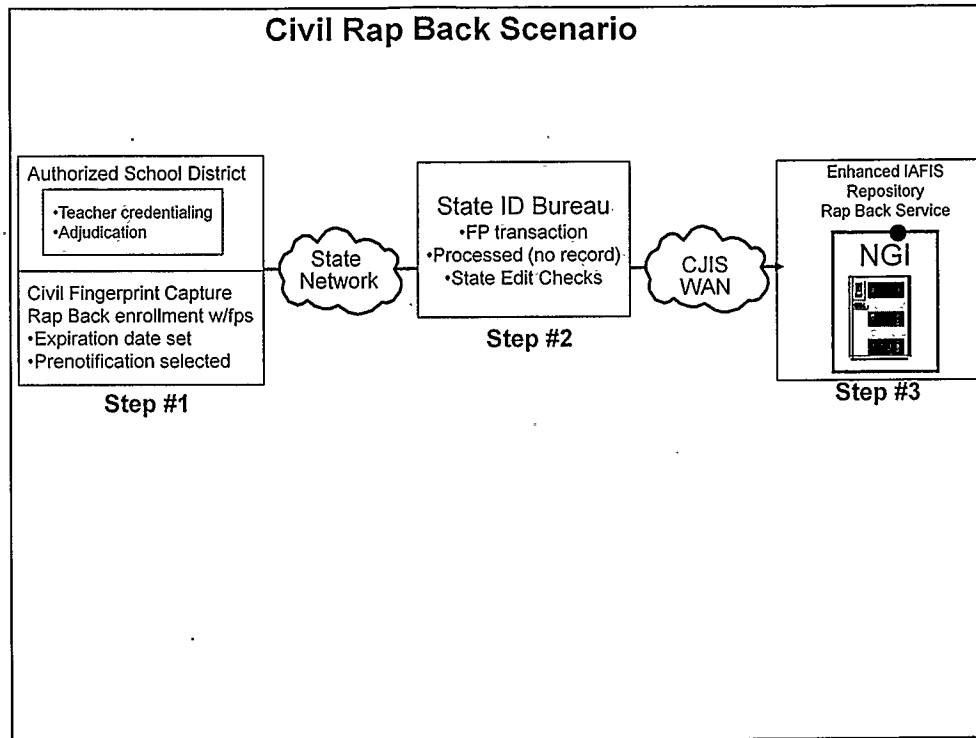


General Scenario (NGI to IDENT)	#2	DOJ Stakeholder Search Matches on a Linked Record in NGI
Step	Description	
1.	DOJ Stakeholder submits an interoperability Search Request(of NGI and IDENT) to NGI.	
2.	NGI conducts a search. There is a biometric match to an identity with an existing record link.	
3a and 3b.	NGI sends the Retrieve Identity Request and the Link Activity Notification to IDENT.	
4.	IDENT sends the Retrieve Identity Response to NGI.	
5.	NGI sends the Search / Retrieve Identity Response to the DOJ Stakeholder.	
6.	IDENT processes the Link Activity Notification and creates an encounter in IDENT.	
7.	Wrap Back Notification(s) may be triggered by the Link Activity Notification.	
8.	DHS Stakeholder(s) may submit Retrieve Identity Request(s) to IDENT.	
9.	IDENT sends Retrieve Identity Request(s) to NGI.	
10.	NGI sends Retrieve Identity Response(s) to IDENT.	
11.	IDENT sends Retrieve Identity Response(s) to the DHS Stakeholder(s).	
Open Issues, Notes, or Questions:	Q1:What does the Link Activity Notification include?	



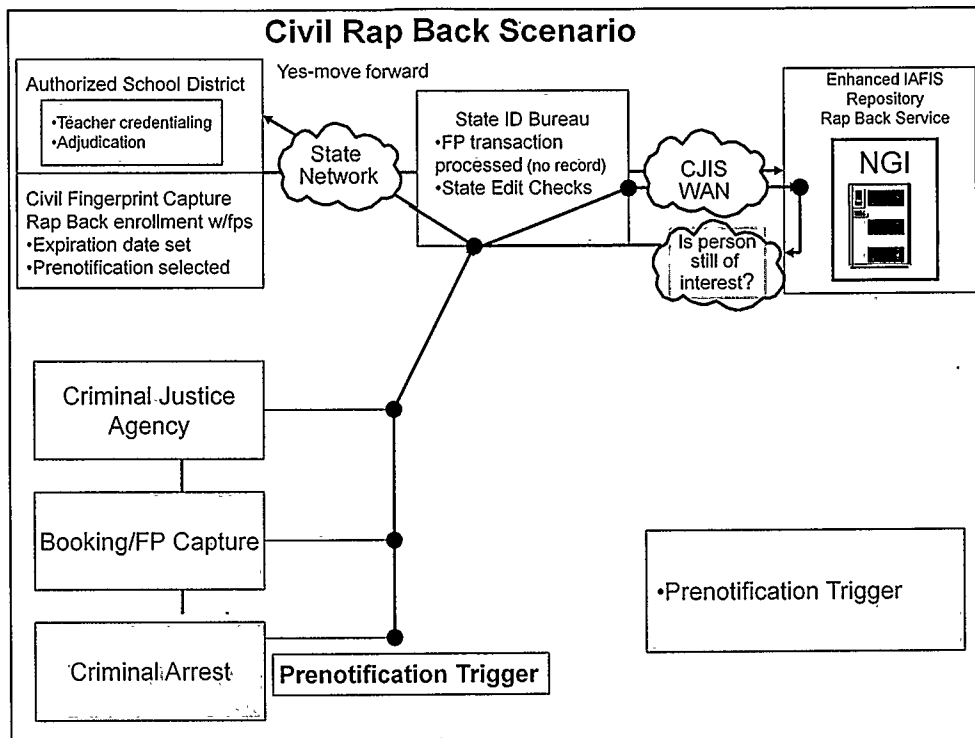
Criminal submission, retain criminal submission, enroll in Rap Back Service



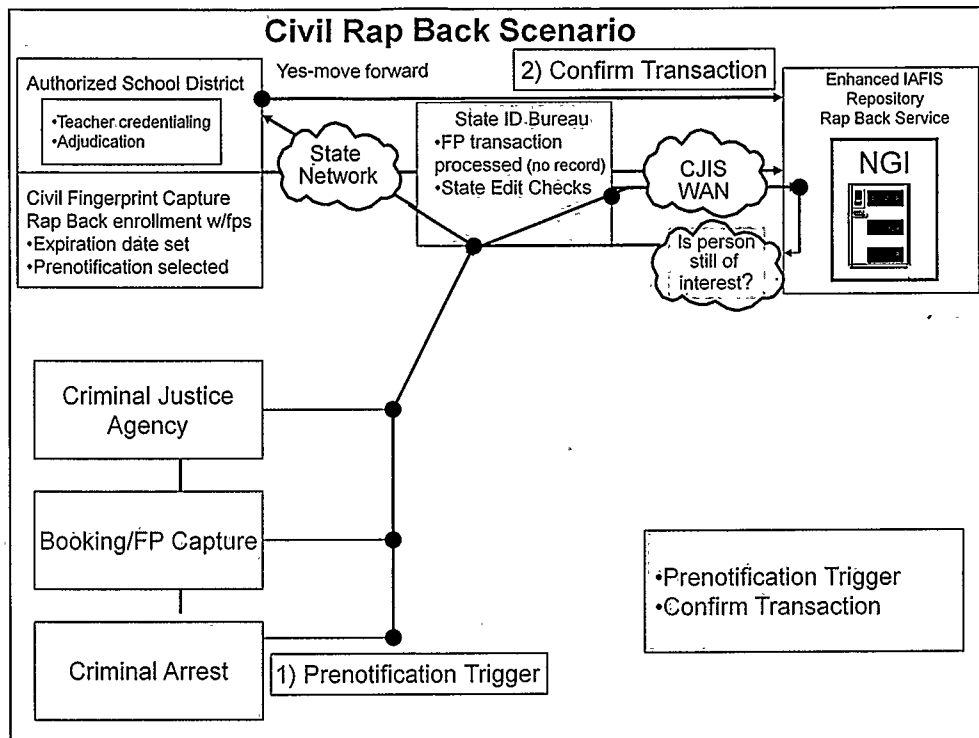


Civil submission, retain civil submission, enroll in Rap Back Service

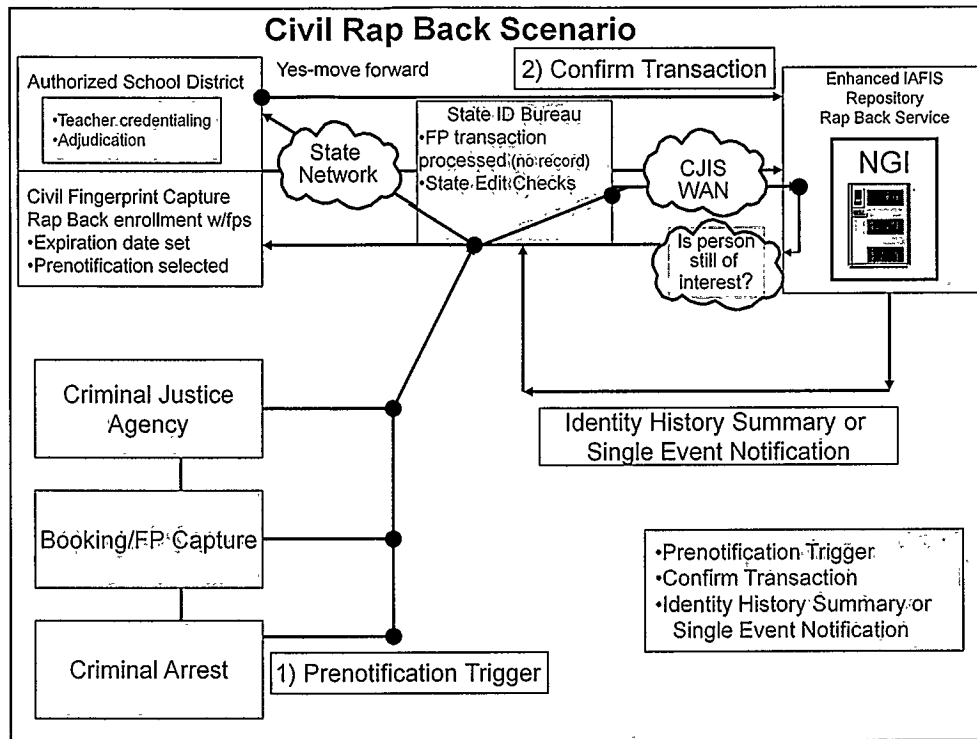




Civil submission, retain civil submission, enroll in Rap Back Service



Civil submission, retain civil submission, enroll in Rap Back Service



Civil submission, retain civil submission, enroll in Rap Back Service



## **Biometric Interoperability Link to NGI**

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- Biometric Interoperability objectives were identified through concept development and tied into the core IAFIS/NGI services
- NGI will enhance current Interoperability functionality
  - Decreased response times
  - Increased capacity
  - Improved IAFIS accuracy
  - Enhanced IAFIS service availability
  - Record Linking to promote Rap Back/Wrap-Back
  - Latent services

## **Full Interoperability**

- Concept of Operations signed 02/16/2006
- Capabilities
  - Dedicated Biometric Search Capability
  - Linking of Repository Records
  - Global Critical Data Set
  - NGI Initiatives supporting Interoperability
    - Advanced Fingerprint Identification Technology (AFIT)
    - RAP Back
    - Photo
- Continuing to work with DHS and DOS
  - Policy issues/MOU
  - Incremental deliverables by Fiscal Year
  - Automated response from IDENT

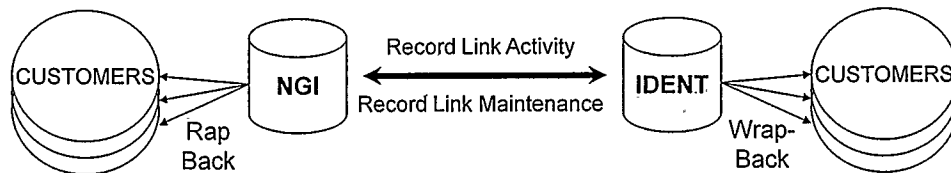
## External Repository Record Link



- **Sub-Objectives**

- Provide functionality for IAFIS to link jointly held records with external repository(s).
- Support the exchange of information with external repository(s) based on linked records.
- Provide notification to external system of IAFIS activity on linked records.
- Receive notification of an external system encounter of a linked record (i.e., an IAFIS Wanted Person, Immigration Violators File).
- Provide Want owners notifications of external system encounter.
- Provide LESC notification of external system encounters of Immigration Violator File records.
- Provide Rap Back services.

## NGI-IDENT Record Linking and Notification



- NGI to deliver for CJIS
- Record Linking WG clarifies what triggers IDENT activity notice and what information can be returned

## Program Initiatives

- Multi-modal Framework - Advancement of integration strategies and indexing of additional biometric data that will provide the framework for a future multi-modal system to facilitate biometric fusion identification techniques. This framework will be expandable, scalable and flexible to accommodate new technologies and biometric standards.
- Advanced Fingerprint Identification Technology including the Enhanced Terrorist Identification Service (ETIS) - Increase IAFIS processing capacity, storage capacity, & accuracy, decrease response times, provide new processing capability, rapid terrorist/wanted person fingerprint check (ETIS).
- QC Automation Functionality - Automate manual Quality Check (QC) processes and provide quicker responses and consistency.
- Interstate Photo System - Allow photo submissions independent of arrest, bulk submissions, photos other than facial, photos with civil submissions, and multi-modal potential.
- Disposition Reporting Improvements - Allow electronic submissions via CJIS WAN using EFTS and III message formats, modernization of the Machine Readable Data (MRD) process, direct Federal Court submissions.
- Enhanced IAFIS Repository - New capabilities for civil records, civil record consolidation, Rap Back Service, multi-modal potential.
- National Palm Print System (NPPS) - Receive, store, and search palm prints, allow bulk submissions, search unsolved latent file, multi-modal functionality.

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Slide 5

Unclassified



## Enhanced IAFIS Repository

- Current Functionality
  - Criminal And Civil – 2 Logical Areas
  - Unable To Seamlessly Move Data Between Files
- New Functionality
  - New Capabilities For Civil Records
  - Civil Record Consolidation
  - Rap Back Service
  - Multi-modal Potential
- Benefits
  - Notify Responsible Agency Regarding Criminal Offenses Of Individuals In Sensitive Positions
  - Automatically Allows For Transition Of Files Between Civil And Criminal Repositories
  - Increases Repository Capacity



## Enhanced IAFIS Repository

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### ■ Functionality

- Provide Identity Management Services
- Provide Iris Services
- Provide Rap Back Services
- Expand Repository Infrastructure


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## Business Rule Groups



<ul style="list-style-type: none"><li>• Access</li><li>• Authorization</li><li>• Automated Quality</li><li>• Biometric File Maintenance</li><li>• Check Automated Sequence Check</li><li>• Cascaded Search</li><li>• Consolidation</li><li>• Dissemination</li><li>• Enrollment</li><li>• External System Data Retention</li><li>• External System Search</li></ul>	<ul style="list-style-type: none"><li>• Feature Quality</li><li>• File Maintenance</li><li>• ITF Search</li><li>• Multi-tiered Dissemination</li><li>• NGI Data Element</li><li>• NGI Search</li><li>• Output Processing</li><li>• Rap Back Notification</li><li>• Response Distribution</li><li>• RISC Enrollment</li><li>• Search Priority</li><li>• Special Processing</li><li>• Transaction Processing</li></ul>
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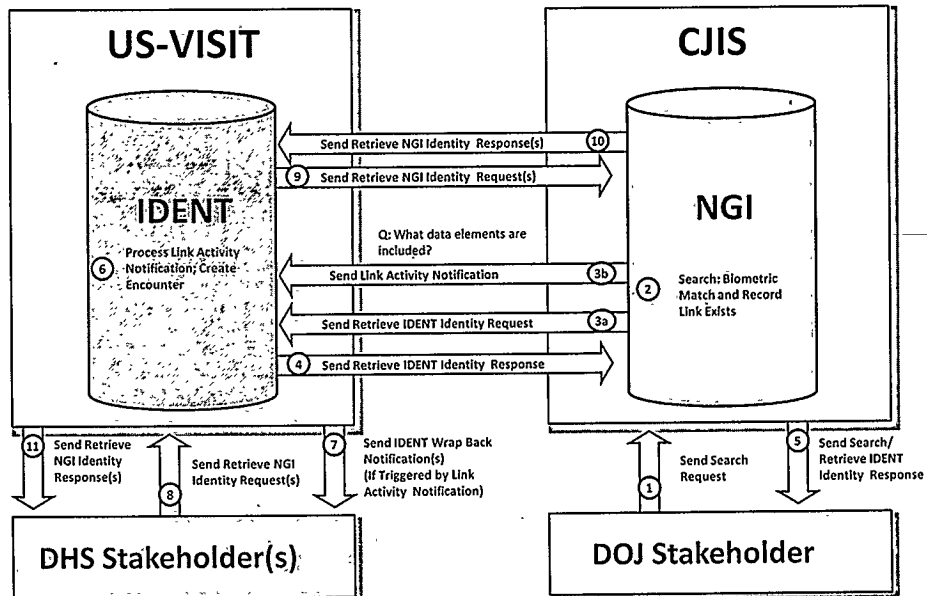
Business Rule Source Examples	
BUSINESS RULE	SOURCE DOCUMENTS
Automated Sequence Check Business Rules	IAFIS System Spec 01090-11.0 IAFIS-ICD 05125-24.0 AFIS SwDD 02160-1.0, App.B ITN SwDD 02161-1.1 EBTS_V8.002_04-01-08-final AFIS SwDD 02160-1.0, App.A IAFIS Database Spec 02162-1.1, AppA,H,I,J ISDD_v5.2 File 1 ISDD_v5.2 File 1, MATRX_1 ITN SwDD 02161-1.1, App B,C,D,E
Rap Back Notification Business Rules	EBTS_V8.002_04-01-08-final
Cascaded Search Business Rules	BIO FRD 3.1 Final BIO-DOC-01174-3.1 EBTS_V8.002_04-01-08-final IAFIS System Spec 01090-11.0 IAFIS-ICD 05125-24.0 AFIS SwDD 02160-1.0, App.B, App.C IAFIS Database Spec 02162-1.1, APPENDIX B ISDD_v5.2 File 1, DN21
Biometric File Maintenance Business Rules	BIO FRD 3.1 Final BIO-DOC-01174-3.1
ITF Search Business Rules	BIO FRD 3.1 Final BIO-DOC-01174-3.1
Multi-tiered Dissemination Business Rules	BIO FRD 3.1 Final BIO-DOC-01174-3.1

October 15-16, 2008

LOCKHEED MARTIN

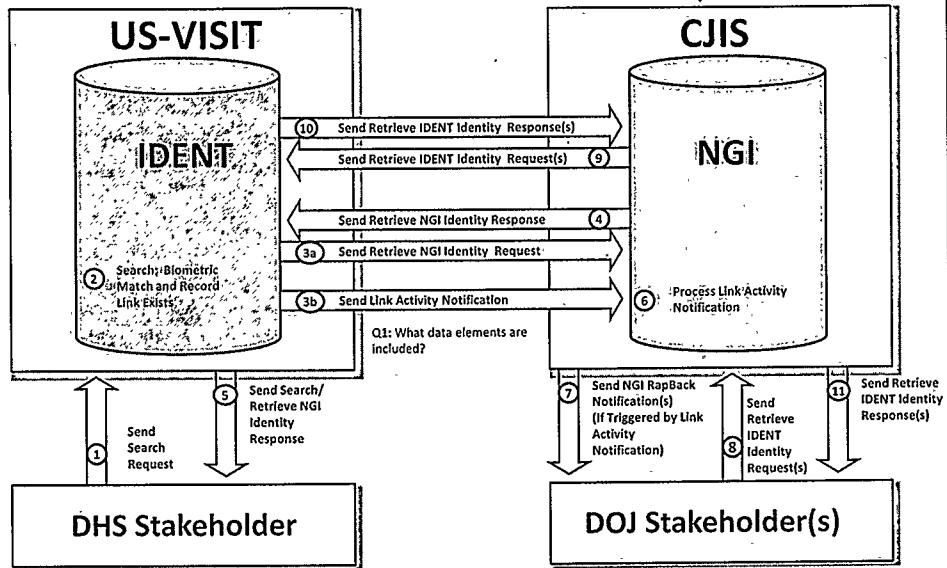
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## #2 - DOJ Stakeholder's Search Matches in NGI: Subsequent Link Activity



General Scenario (NGI to IDENT)	#2	DOJ Stakeholder's Search Matches in NGI: Subsequent Link Activity
Step	Description	
1.	DOJ Stakeholder submits an interoperability Search Request(of NGI and IDENT) to NGI.	
2.	NGI conducts a search. There is a biometric match to an existing linked record .	
3a.	NGI sends the Retrieve IDENT Identity Request to IDENT.	
3b.	NGI sends the Link Activity Notification to IDENT.	
4.	IDENT sends the Retrieve IDENT Identity Response to NGI.	
5.	NGI sends the Search / Retrieve IDENT Identity Response to the DOJ Stakeholder.	
6.	IDENT processes the Link Activity Notification and creates an encounter in IDENT.	
7.	IDENT Wrap Back Notification(s) may be triggered by the Link Activity Notification.	
8.	DHS Stakeholder(s) may choose to submit Retrieve NGI Identity Request(s) to IDENT.	
9.	IDENT sends Retrieve NGI Identity Request(s) to NGI.	
10.	NGI sends Retrieve NGI Identity Response(s) to IDENT.	
11.	IDENT sends Retrieve NGI Identity Response(s) to the DHS Stakeholder(s).	
Open Issues, Notes, or Questions:	Q1:What does the Link Activity Notification include?	

### #3 - DHS Stakeholder's Search Matches in IDENT: Subsequent Link Activity





General Scenario (IDENT to NGI)	#3	DHS Stakeholder's Search Matches in IDENT: Subsequent Link Activity
Step	Description	
1.	A DHS Stakeholder submits an interoperability search request (of IDENT and NGI) to IDENT.	
2.	IDENT processes a full gallery search of IDENT. There is a biometric match to an existing linked record.	
3a.	IDENT sends the Retrieve NGI Identity Request (with or without prints depending on the DOJ Stakeholder) to NGI.	
3b.	IDENT sends the Link Activity Notification to NGI.	
4.	NGI sends the Retrieve NGI Identity Response to IDENT.	
5.	IDENT sends the Search/Retrieve NGI Identity Response to the DHS Stakeholder.	
6.	NGI processes the Link Activity Notification.	
7.	NGI RapBack Notification(s) may be triggered by the Link Activity Notification.	
8.	DOJ Stakeholder(s) may choose to submit a Retrieve IDENT Identity Request(s) to NGI.	
9.	NGI sends a Retrieve IDENT Identity Request(s) to IDENT.	
10.	IDENT sends a Retrieve IDENT Identity Response(s) to NGI.	
11.	NGI sends Retrieve IDENT Identity Response(s) to the DHS Stakeholder(s).	
Open Issues, Notes, or Questions:	<p>Q1: What data elements should be included in the Link Activity Notification include?</p> <p>Note: In Step #3a, the Retrieve NGI Identity Request and the Link Activity Notification are independent processes. The Retrieve NGI Identity Request could be sent without new activity on a linked record (e.g. When DOS initiates an RCH)</p>	

## Link Activity Notification

### IDENT to NGI

- Will NGI generate on-line hit notifications when it receives a link activity notification from IDENT?
- If yes, is it possible to provide a hit notification to SIU and CDIG if there is a link activity notification on KST/FSI records?
- Interoperability ICA includes data fields currently included in the hit notification messages. Are these sufficient for record linking link activity notifications?

1. External System linked record activity results in unsolicited notifications to the appropriate Authorized Contributors

SFR889 NGI shall send a Want Notification to the wanting agency when external system activity occurs on a linked record containing an active want based on dissemination rules

SFR899 NGI shall send a Special Interest Notification to an Authorized Contributor when external system activity occurs on a linked record containing a special processing flag based on dissemination rules.

SFR940 NGI shall send Rap Back Activity Notification to the appropriate Authorized Contributors when an External System Activity request is received for a Rap Back enrolled Identity

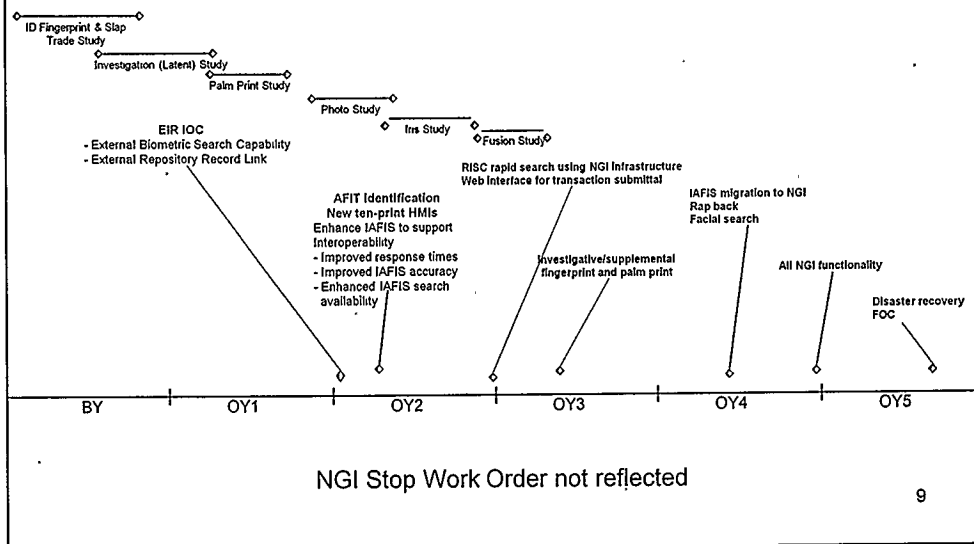
SFR964 NGI shall send Immigration Violator File Notification to the LESC when external system activity occurs on a linked record containing an IVF indicator based on dissemination rules.

An External System Link Activity Notification from an External System or NFF Criminal Print Ident Notification from an NFF State is considered a positive identification and may trigger RISC Notifications

ICA -- Hit Notification Message???



## High Level Diagram of Schedule






## Record Linking


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- Conceptually links subjects in both IAFIS and IDENT
  - Predicated upon an initial biometric match
- Allows subsequent communications for LE purposes without additional biometric matching
  - Saves line space and computing resources
- Allows notification of subsequent activity on linked records, consistent with RapBack
  - However, requires non-criminal justice agencies to submit fingerprints to retrieve CHRI



## Ten-Print Fingerprint Identification Services




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■ **New Functionality**

- Accept Flat and Rolled Searches
- Designate Search of Internal/External Repository
- Designate Repositories for Enrollment
- Allow Secondary Biometric Enrollment
- Accept Supplemental Major Case Print (MCP) Collection
- Rap Back Enrollment
- Identity Theft Victim (ITV) Enrollment
- Always Perform Feature Search

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## Ten-Print Fingerprint Identification Services



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■ **New Functionality (cont.)**

- Always search RISC Repository
- Search based on transaction priority
- Cascaded ULF/SPC File Searches
- Provide Photo With Response (optional)

■ **Contributing Sources**

- Authorized IAFIS Contributors
- FBI Service Providers
- External Systems (i.e., IDENT)

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## Searches from an External System



■ Searches *from* External Systems

- Indicate if external record link should be established for an IAFIS positive identification
- Create new IAFIS enrollment with external record link for an IAFIS non-identification
- Indicate if an Immigration Alien Query (IAQ) needs sent to LESC as part of a search from the IDENT System

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## Rap Back Service

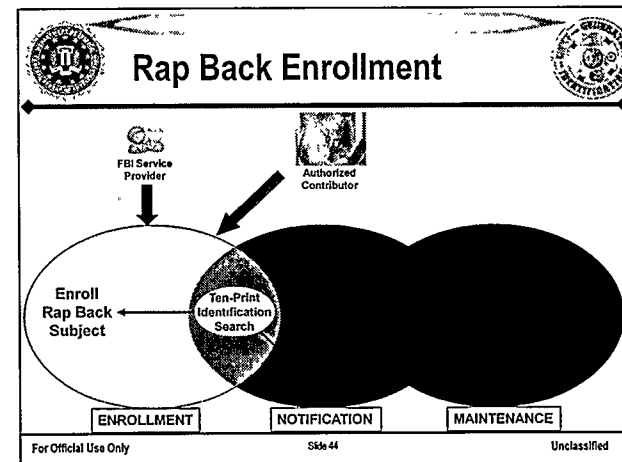
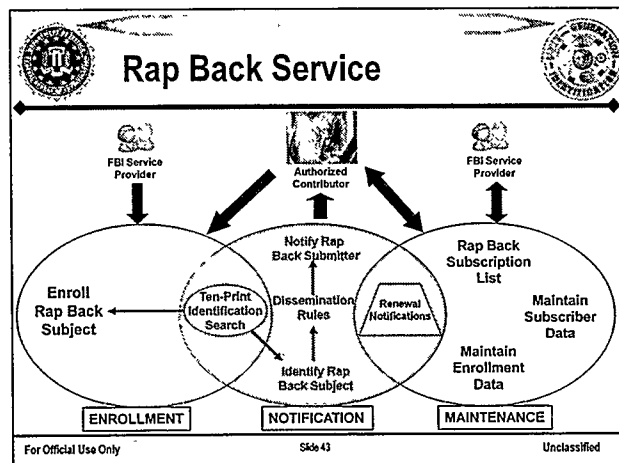
**RAP BACK:**


Notification to an Authorized Contributor that activity (e.g., criminal, civil, External System activity) has occurred on a previously enrolled subject's record.

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## Rap Back Enrollment




■ Rap Back Enrollment

- Indicate on a Ten-Print Fingerprint Identification Search Request
- Indicate Rap Back Expiration Date
  - Default if not designated or invalid
- Indicate event types that trigger Rap Back notifications
  - Civil, Criminal, External
- Designate recipients of Rap Back notifications
- Reject if search is rejected


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## Ten-Print Fingerprint Identification Services



■ Additional Functionality includes:


- Identity Theft Victim (ITV) Enrollment
- Always Perform Feature Search
  - Search against composites
- Always search RISC Repository
  - All Ten-Print Fingerprint Identification Searches

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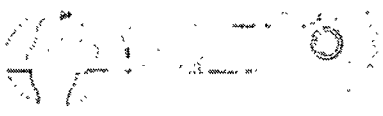


## Next Generation Identification



### Information Services


SRD Section 3.3




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## Information Services




**Information** – The IAFIS service that provides specific biographic or biometric information on an individual.

- Biometric Image Retrieval
- Biometric Features Retrieval
- Biometric Audit Trail Retrieval
- Biometric Information Retrieval
- Identity History Request
- Certification File Request
- Rap Back Subscription List Request
- Rap Back Rap Sheet Request


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## Rap Back Subscription List Request




- New functionality
  - Allow Rap Back Subscriber to request a Rap Back Subscription List
- Contributing sources
  - Authorized IAFIS Contributors
  - FBI Service Providers


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## Rap Back Rap Sheet Request




- New functionality
  - Allow Rap Back Subscriber to request a Rap Sheet after receipt of Rap Back Activity Notification
  - Rap Sheet indicates event that triggered the Rap Back
- Contributing sources
  - Authorized IAFIS Contributors


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## Notification Services




- Minimally impacted by NGI
  - External System Activity
    - Want Notifications
    - Special Interest Notifications


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## Notification Services




- New Functionality
  - Expanded Unsolved Biometric Notification
  - Expanded Special Population Cognizant File Notification
  - External System Link Notification
  - Rap Back Activity Notification
  - Rap Back Renewal Notification
  - RISC Notification
  - International Terrorist File Notification
  - Immigration Violator File Notification


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## External System Link Notification




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- New Functionality
  - Activity against records containing an External System Link (i.e., IDENT encounter)
  
- Recipients
  - External Systems (i.e., IDENT)

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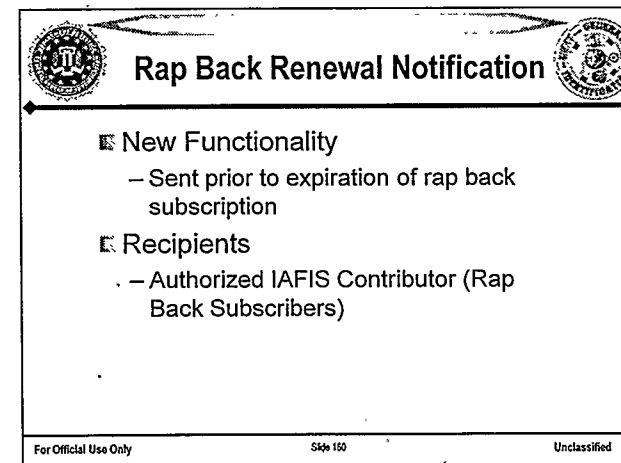
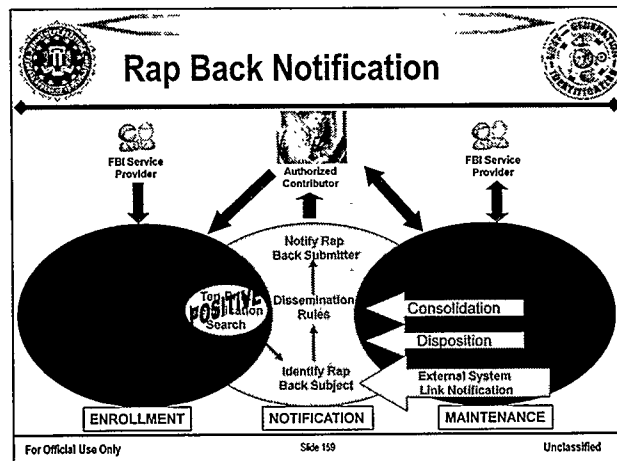
## Rap Back Activity Notification




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- New Functionality
  - Triggered by designated event
    - Positive Criminal Identification
    - Positive Civil Identification
    - External System Activity Notification (i.e., encounter)
    - Selected Data Management Services (e.g., Consolidations or Dispositions)
  - Includes a Rap Back Notification Identifier needed for Rap Back Rap Sheet Request
  
- Recipients
  - Authorized IAFIS Contributor (Rap Back Subscribers)

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## Data Management Services




■ New Functionality (cont.)

- Special Population Cognizant File Maintenance
- Direct Rap Back Enrollment
- Rap Back Maintenance / Renewal
- External System Record / Link Maintenance
- External System Link Activity *Notification*
- ITF Maintenance
- IVF Maintenance


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## Data Management Services




### Statute Retrieval / Maintenance


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## SPC File Maintenance




- Performed by FBI Service Provider
  - On behalf of Authorized Contributor
  - Case-by-case consideration


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## Data Management Services




### Direct Rap Back Enrollment


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## Direct Rap Back Enrollment



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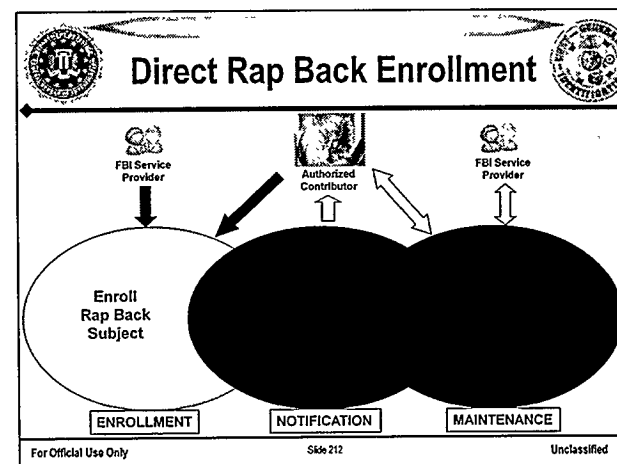
**New Functionality**

- Add rap back to an existing Identity
- Designate event type triggers
- Set expiration date
- Set notification recipients


**Contributing Sources**

- Authorized IAFIS Contributors
- FBI Service Providers


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## Direct Rap Back Enrollment




- Direct Enrollment
  - Supports adding rap back to legacy IAFIS subjects
  - Support adding rap back when not indicated at time of search


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## Data Management Services




### Rap Back Maintenance / Renewal


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## Rap Back Maintenance / Renewal



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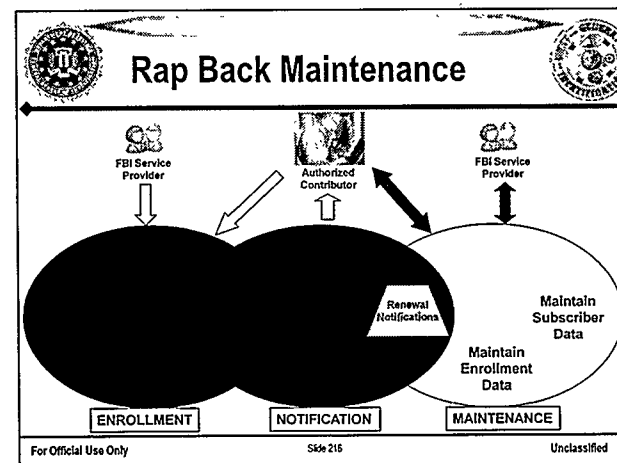
**New Functionality**



- Add / delete recipients
- Modify event type triggers
- Cancel rap back subscription
- Renew rap back subscription

**Contributing Sources**

- Authorized IAFIS Contributors
- FBI Service Providers

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## Administrative & Control Services

- Not impacted by NGI
  - System Backup & Recovery

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## Administrative & Control Services

- Minimally impacted by NGI
  - System Status Reporting
    - Centralize functions
  - System Administration
    - Create & Manage new repositories
  - Manage Workflow & Work Queues
    - Manage workflow for new biometrics
  - Transaction History
    - Centralized functions
    - Supports new services
  - User Fee Billing
    - Rap Back

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## Identity Data Management

- Identity Information
  - Biographic information
  - Biometric Information
  - Event Information
  - Special Processing Indicators
  - Notification Indicators (e.g., Want, Flash, SOR, ITF, IVF, Rap Back)

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## Identity Data Management

- Maintain Unique Identity
- Identity Data Retention Rules
- Create Identity
- Update Identity
- Delete Identity
- Retrieve Identity


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## Reliability




■ Reliability is the probability that a system will be able to process work correctly and completely without being aborted. Reliability is defined in terms of the system processing and fingerprint matching accuracy.


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## System Reliability



■ System Reliability


- Process all transactions to completion

Fingerprint	Disposition Submissions
Latent	ITF Searches
Photo	Rap Back
Palms	Major Case Print (MCP)
IRIS	Repository Management
Rapid Searches	Identity Management


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## System Performance




- Iris Response Times
  - Iris search: 24 hours
  - Iris image retrieval: 1 hour
  - Iris features retrieval: 1 hour


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## System Performance




- Rap Back Response Times
  - Rap Back notification: 1 hour
  - Rap Back subscription list: 24 hours
  - Maintenance / Renewal: 1 hour


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## NGI Workload




- ☐ Fingerprint
- ☐ Latent
- ☐ Photo
- ☐ Palm Print / Supplemental MCP
- ☐ Iris
- ☐ Disposition
- ☐ Identity Management
- ☐ Rap Back
- ☐ Identity History and Request


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## NGI Workload





# Fingerprint

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**NGI Workload**

**Rap Back**

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**Rap Back Workload and Capacity**

- New functionality
  - Enrollment (Criminal, Civil)
  - Subscription List Requests
  - Subscription Maintenance
    - Update Requests
    - Delete Requests
  - Subscription Renewal
  - Rap Back Notifications

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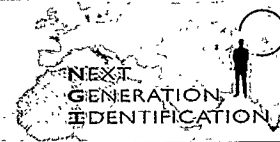


Rap Back Workload						
DAILY	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012
<b>Identification Services</b>						
Enrollments	-	-	90,758	85,451	92,740	103,400
<b>Information Services</b>						
Subscription List	-	-	908	855	927	1,034
<b>Data Management Services</b>						
Deletions	-	-	4,538	4,273	4,637	5,170
Updates	-	-	4,538	4,273	4,637	5,170
Renewals	-	-	-	45,379	42,725	46,370
<b>Notification Services</b>						
Notifications	-	-	148,439	131,523	138,326	147,040
For Official Use Only						
S&S 343						
Unclassified						

Rap Back Capacity						
Yearly	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012
Subscriptions Capacity	-	-	33,126,560	31,189,519	50,413,287	53,335,906
For Official Use Only						
S&S 344						
Unclassified						

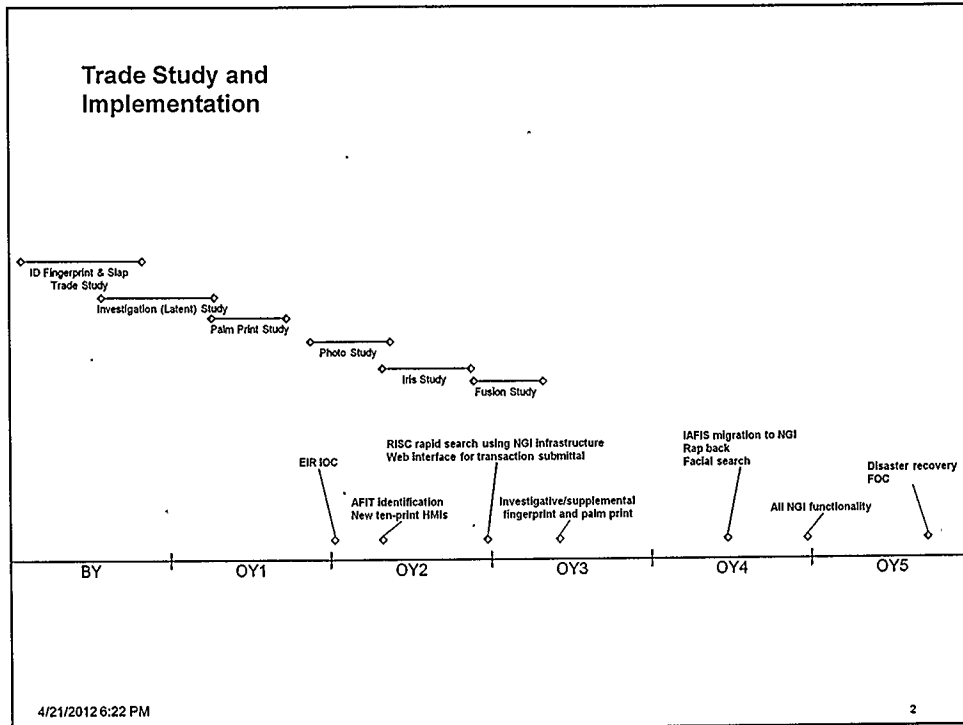


## Enhanced IAFIS Repository



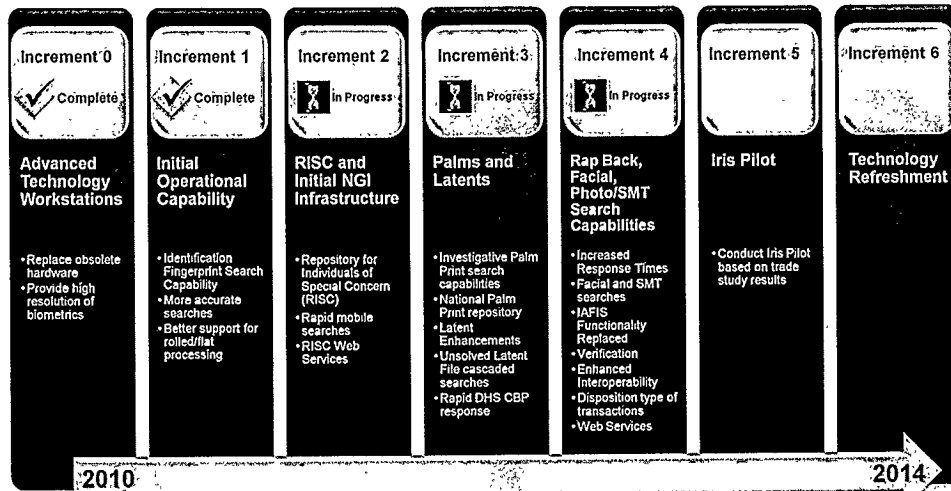
### ■ Functionality

- Provide Identity Management Services
- Provide Rap Back Services
  - Automatic notification of enrolled subject
- Expand Repository Infrastructure
- Provide Iris Services
- Five Additional Repositories





## NGI Implementation Schedule



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## Rap Back, Facial, SMT Search Capabilities, Migration of Remaining IAFIS Functionality (Increment 4 )

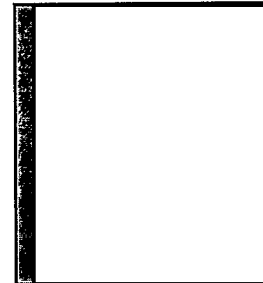


### Status

- Rap Back
- Facial Search
- Text based scars, marks, and tattoo (SMT) searches
- Enhanced Interoperability
- Fingerprint verification services
- Improved response times
- Target Deployment – Summer 2014

### Resulting Benefits

- Enhance public safety
- National level investigative searches of photos/SMTs
- More accurate and complete criminal history records
- Flexible and scalable architecture for future needs



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8

b6



## Rap Back Activities



- Reviewing Best Practices and Lessons Learned
  - Currently identified 28 states with Rap Back business lines
  - Strategic discussions to align with a national implementation
- Identifying Policy Focus Areas
- Going Forward
  - Engage Law Enforcement Partners
  - Continue working with Subject Matter Experts

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## NGI Initiatives

- QC Automation
- Interstate Photo System (Mugshots)
- Disposition Reporting Improvements
- Advanced Fingerprint Identification Technology
  - Enhanced Terrorist Identification Service (ETIS)
- Enhanced IAFIS Repository
  - Rap Back
- National Palm Print System (NPPS)

7

## Quality Check Automation

- Functionality
  - Automate Manual QC Processes
- Benefits
  - Quicker Responses & Consistency

8

### Enhanced IAFIS Repository

#### ■ Functionality

- New Capabilities For Civil Records
- Civil Record Consolidation
- Rap Back Service
- Multi-modal Potential

15

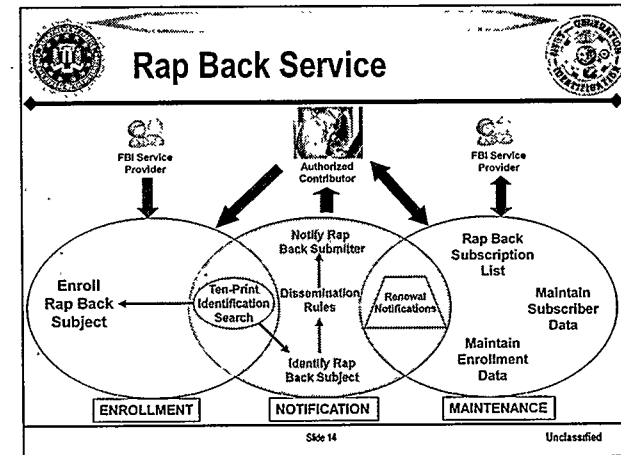
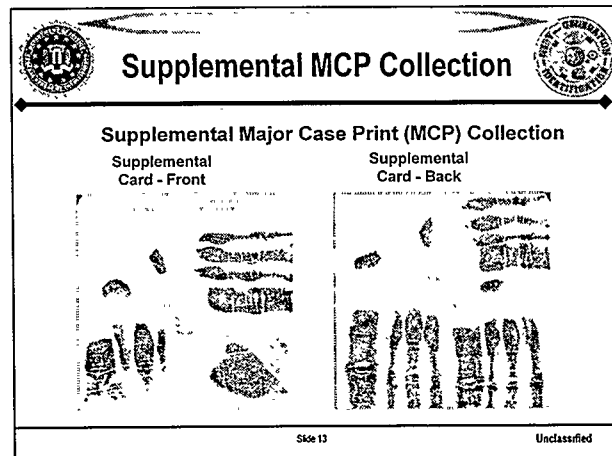
### Enhanced IAFIS Repository

#### ■ Benefits

- More Thorough Search
- Expanded Search Capabilities
- Safer Nation

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## Information Services



■ **Information** – The IAFIS service that provides specific biographic or biometric information on an individual.

- Biometric Image Retrieval
- Biometric Features Retrieval
- Biometric Audit Trail Retrieval
- Biometric Information Retrieval
- Identity History Request
- Certification File Request
- Rap Back Subscription List Request
- Rap Back Rap Sheet Request

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## Next Generation Identification



### Investigation Services



Slide 26

Unclassified



## Notification Services



- **Notification** - The IAFIS service that provides an unsolicited notification based on pre-set event criteria (triggers).

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## Notification Services




- **New Functionality**
  - Expanded Unsolved Biometric Notification
  - Expanded Special Population Cognizant File Notification
  - External System Link Notification
  - Rap Back Activity Notification
  - Rap Back Renewal Notification
  - RISC Notification
  - International Terrorist File Notification
  - Immigration Violator File Notification

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## Rap Back Activity Notification

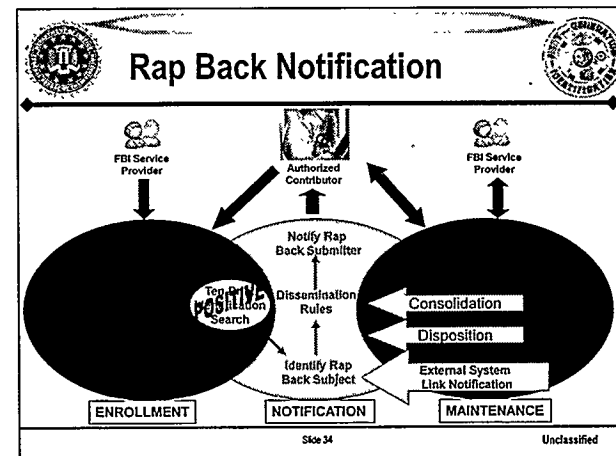



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**■ New Functionality**


- Triggered by designated event
  - Positive Criminal Identification
  - Positive Civil Identification
  - External System Activity Notification (e.g., encounter)
  - Selected Data Management Services (e.g., Consolidations or Dispositions)
- Includes a Rap Back Notification Identifier needed for Rap Back Rap Sheet Request

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## Direct Rap Back Enrollment



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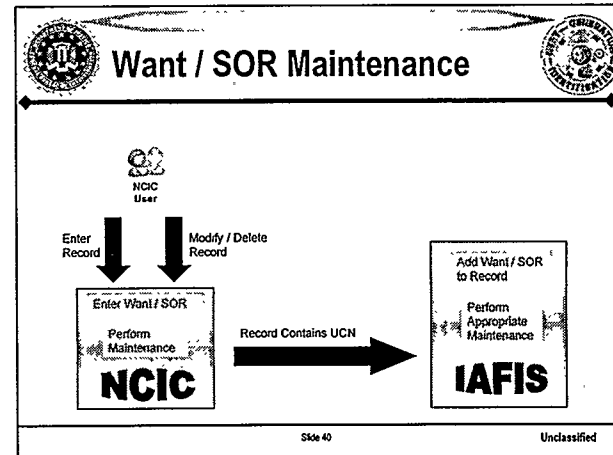
**New Functionality**

- Add rap back to an existing Identity
- Designate event type triggers
- Set expiration date
- Set notification recipients

**Contributing Sources**

- Authorized IAFIS Contributors
- FBI Service Providers

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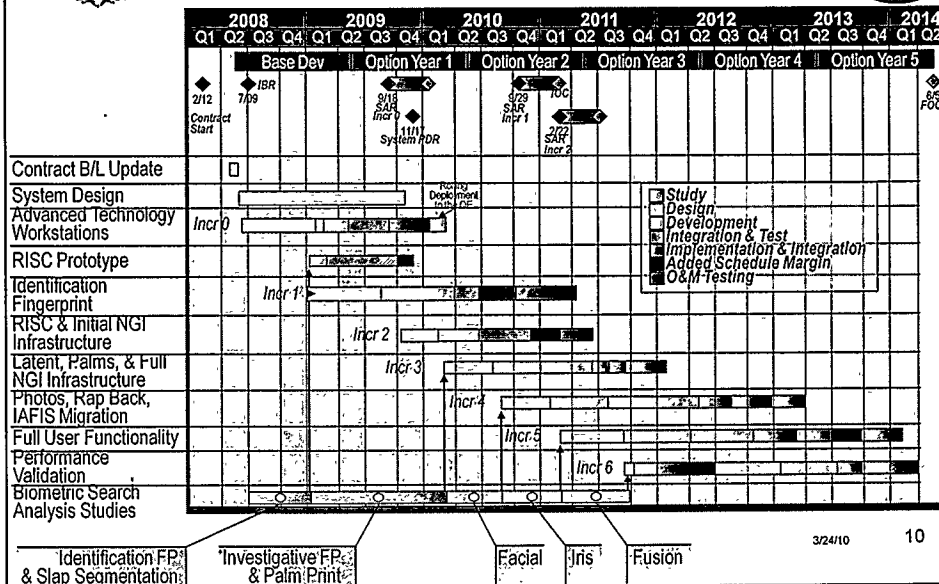
## Mission / Service Similarities

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### Similarities between IDENT and IAFIS/NGI

- Authorized by law to perform biometric matching
- Maintains mega-galleries of fingerprint information
  - with duplication on criminal immigration issues and critical data sets (i.e., terrorist, W/W)
- Working to incorporate multi-modal biometric matching
- Working towards an updated notification/alert service to customers (i.e., IDENT's Wrap-Back and NGI's RapBack)
- Offers multiple response times based on customer mission needs





## Mission / Service Similarities

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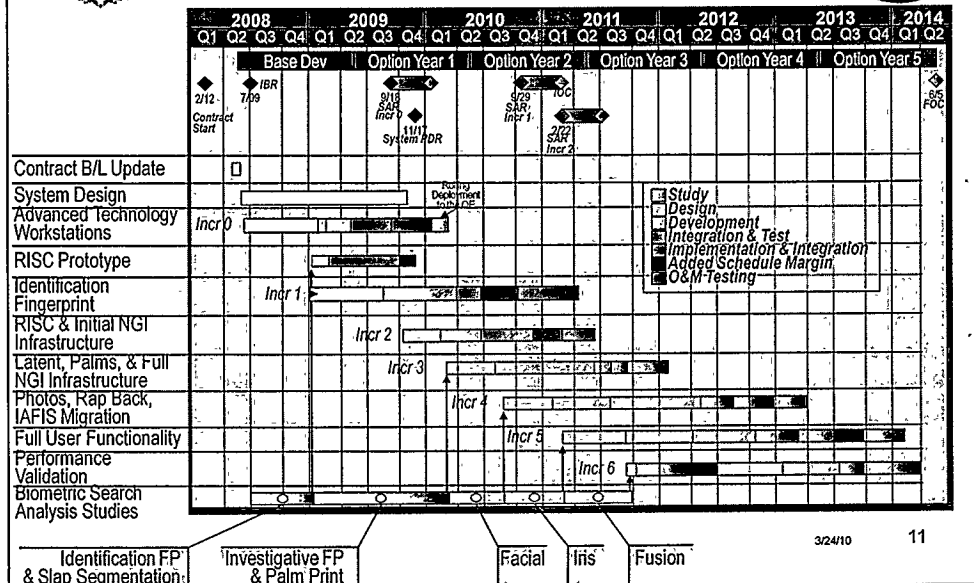
### Similarities between IDENT and IAFIS/NGI

- Authorized by law to perform biometric matching
- Maintains mega-galleries of fingerprint information
  - with duplication on criminal immigration issues and critical data sets (i.e., terrorist, W/W)
- Working to incorporate multi-modal biometric matching
- Working towards an updated notification/alert service to customers (i.e., IDENT's Wrap-Back and NGI's RapBack)
- Offers multiple response times based on customer mission needs





# Projected Implementation Schedule



TENTATIVE and Subject to Change

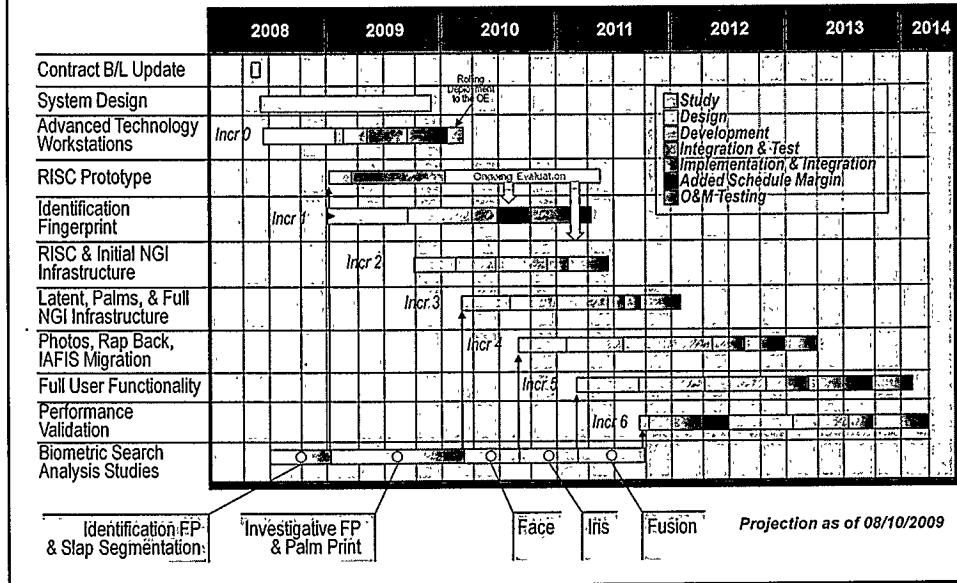
Updated chart received 3/24/2010

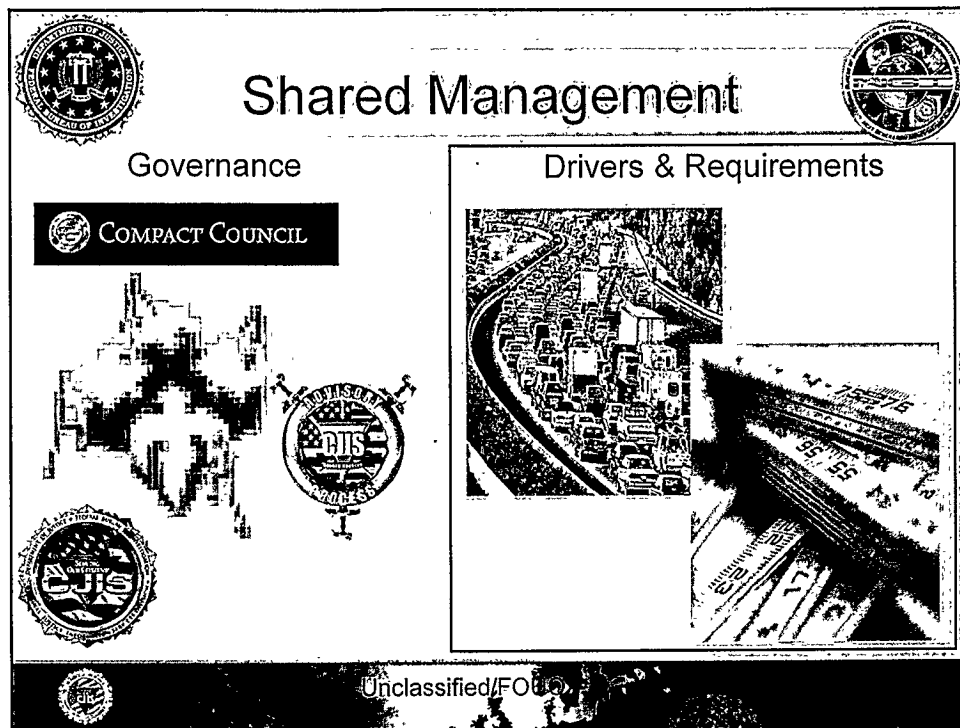
Increment 1 = new matching algorithm

Increment 4 = Shared Services

Increment 6 = full capacity and performance

# NGI Projected Timeline





The drivers for NGI were built around the system users. Some states have already implemented services (palm databases/rap back) on the state-level that NGI will offer. However, NGI will play a vital role in providing those services on a nation-wide level, therefore making that connection. The connection will provide state-to-state information sharing which everyone can benefit.

In 2006, the NGI program office worked to validate current stakeholder requirements, and identified additional user requirements during a canvass of the IAFIS user community, in which some of you were probably involved. Over 193 agencies representing over 1,000 individuals were canvassed.

#### NGI Drivers and Requirements

**Flexibility**

**Capacity**

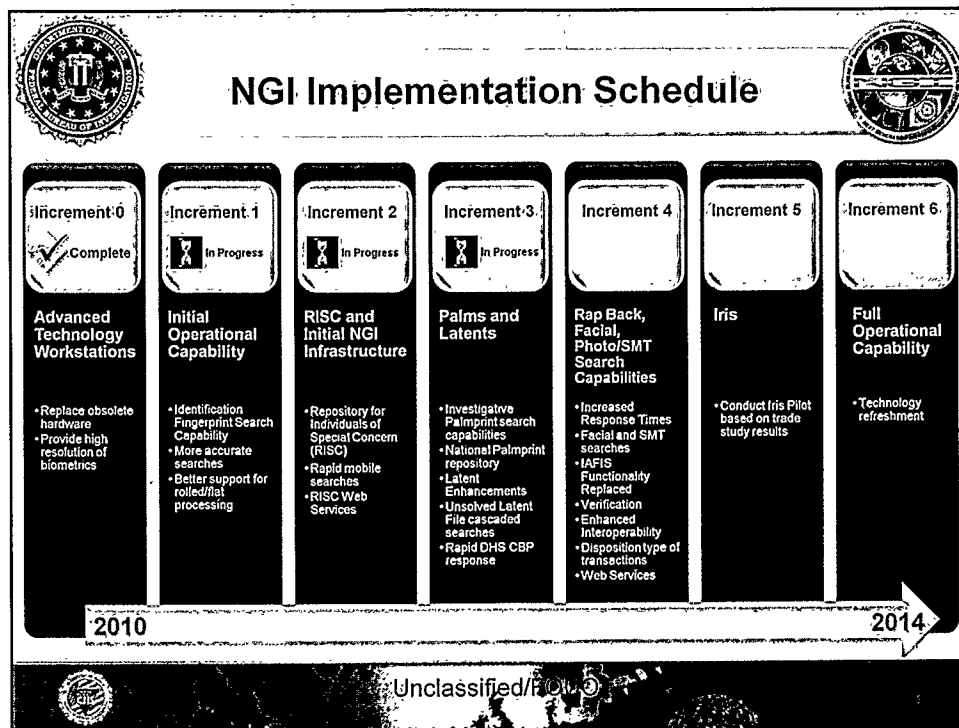
**Accuracy**

**Response Times**

**Additional Functionality**

**Interoperability**

**Availability**



**Increment 0 - Advanced Technology Workstations (ATW) - Completed March 26, 2010.**

**Increment 1 - Increased accuracy (99% true match rate) of fingerprint search results & provides better support for processing flat and rolled fingerprints**

**Increment 2 - Repository for Individuals of Special Concern (RISC)**

Rapid mobile searches of the worst of the worst

Supports mobile fingerprint identification operations on a national level

**Increment 3 - Palmprint Repository and additional Latent functionality (latent palm searches)**

Provides reverse or cascaded of incoming transactions against unsolved latent and palm files

**Increment 4 - Enhanced photo repository and searches of scars, marks, and tattoos (SMT)/photos;**

RAP Back functionality

Biometric Interoperability


Replacement of IAFIS

Implements interoperability solutions with the Department of Homeland Security


**Increment 5 - Iris Pilot**

**Increment 6 - Full Operational Capability**

Technology refresh




### Rap Back, Facial, SMT Search Capabilities, Migration of Remaining IAFIS Functionality (Increment 4)




- ▶ Rap Back notification of criminal activity on previously enrolled individuals
- ▶ Facial Search
- ▶ Text based scars, marks, and tattoo (SMT) searches
- ▶ Enhanced Interoperability to include transition of shared services to NGI
- ▶ Fingerprint verification services
- ▶ Improved response times


#### Resulting Benefits

- ▶ Enhance public safety
- ▶ National level investigative searches of photos/SMTs
- ▶ More accurate and complete criminal history records
- ▶ Flexible and scalable architecture for future needs







Human




Animal




Plant




Flag




Object




Abstract



Symbol



Other



Unclassified//FOUO

b6

#### INCREMENT 4 (2013)

In Increment 4, all remaining IAFIS functionality, which includes the high priority functionality previously delivered as QUICKWINS, will be migrated to the NGI architecture. At a minimum, IAFIS response and accuracy requirements will be met, however, the advanced NGI response and accuracy requirements will be realized in Increment 6. The expansion of the facial and scars, marks, and tattoos search will be included in this increment. The verification transaction will enable users to submit a transaction to confirm an identity based on a one-to-one comparison.

The Enhanced IAFIS Repository (EIR) will be operational supporting the unique identity concept and Rap Back capability. As a new feature, the Rap Back Service will provide authorized criminal justice and non-criminal justice users the capability to receive subsequent notification of criminal activity posted to an enrolled individual's record.

NGI will include criminal and civil submissions, biometric submissions, special population files, unsolved latent/biometric files, etc. A **unique identity reference (alphanumeric character)** will identify and collectively locate individuals contained within the files.

Additionally, disposition reporting via the CJIS WAN will be included with this increment as will the shared services to provide Department of Homeland Security interoperability.

Full replacement of the IAFIS.



## Rap Back



*The NGI Rap Back Service was developed in response to a need for notification of Criminal and Civil activity that occurs after the initial processing and retention of fingerprint transactions*

### Customer Benefits

- ▶ Offer continuous evaluation of suitability on persons serving in positions of trust
- ▶ Provide timely notification of individuals placed on probation
- ▶ Confirm suitability for employees placed in national security positions of trust
- ▶ Task of performing subsequent fitness determination through taking fingerprints, etc., is no longer necessary
- ▶ Enhance public safety at all levels

### Categories of Interest

- ▶ Individuals holding positions of trust
  - ▶ e.g. Teachers, Nurses, National Security positions
- ▶ Individuals processing through the criminal justice system
  - ▶ e.g. Probation and Parole



Unclassified//FOUO

## Success

- Texas Education Agency enrolls all applicants into Texas Rap Back program
  - FY 09 – 245 cases of subsequent hits opened
  - Teacher fingerprinted in 2007, Rap Back hit in 2009
    - Arrested for Indecency with Child

## External Repository Record Link

- Provide functionality for NGI to link jointly held records with IDENT
- Support the exchange of information with IDENT based on linked records
- Provide notification to IDENT of NGI activity on linked records
- Receive notification of IDENT encounter of a linked record (i.e., an IAFIS Wanted person, IVF)
- Provide Want owners notifications of IDENT encounter
- Provide DHS/LESC notification of IAFIS/NGI encounters of IVF records
- Provide RAP Back services



## Mission / Service Similarities

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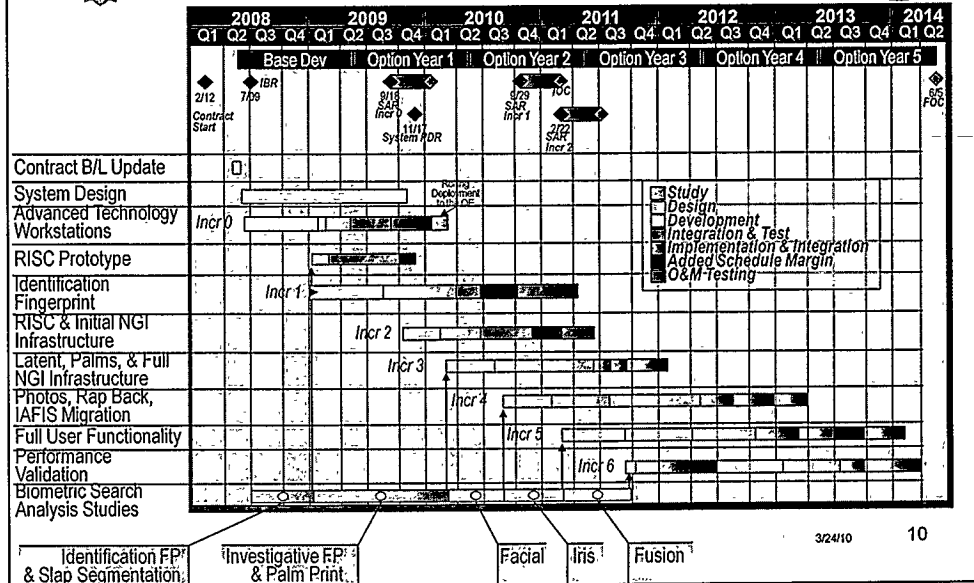
### Similarities between IDENT and IAFIS/NGI

- Authorized by law to perform biometric matching
- Maintains mega-galleries of fingerprint information
  - with duplication on criminal immigration issues and critical data sets (i.e., terrorist, W/W)
- Working to incorporate multi-modal biometric matching
- Working towards an updated notification/alert service to customers (i.e., IDENT's Wrap-Back and NGI's RapBack)
- Offers multiple response times based on customer mission needs





# Projected Implementation Schedule



TENTATIVE and Subject to Change

Updated chart received 3/24/2010

Increment 1 = new matching algorithm

Increment 4 = Shared Services

Increment 6 = full capacity and performance



## Full Interoperability



- **Concept of Operations signed 02/16/2006**
- **Capabilities**
  - ◆ **Dedicated Biometric Search Capability**
  - ◆ **Linking of Repository Records**
  - ◆ **Global Critical Data Set**
  - ◆ **NGI Initiatives supporting Interoperability**
    - ◆ **Advanced Fingerprint Identification Technology (AFIT)**
    - ◆ **RAP Back**
    - ◆ **Photo**



## Mission / Service Similarities

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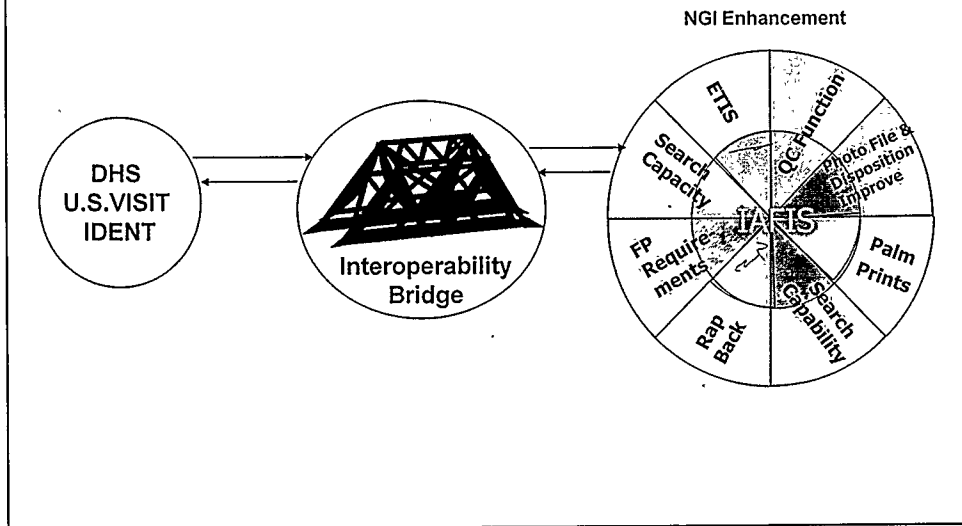
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- Offers multiple response times based on customer mission needs

### Similarities between IDENT and IAFIS/NGI

- Utilizes blade hardware to perform matching
- In the process of updating matching algorithms to MorphoTrak variations
- Supports a rapid search of a limited subset

# IAFIS/NGI/Interoperability Interrelationship



## **NGI/Interoperability**

- **Commonalities – NGI capabilities that will benefit Interoperability**
  - Capability to partition the database for segmented searches of wanted persons and known or suspected terrorists (ETIS).
  - Rap Back Service (VISAS).
  - Flat fingerprint processing.
  - More accurate CHRI Database.
  - Improved IAFIS speed and accuracy.
- **Differences – Capabilities NGI does not immediately deliver that are required for Interoperability**
  - Increased storage capacity.
  - Increased availability.
  - Establish mechanism to share data real-time with reciprocal exchange of information.

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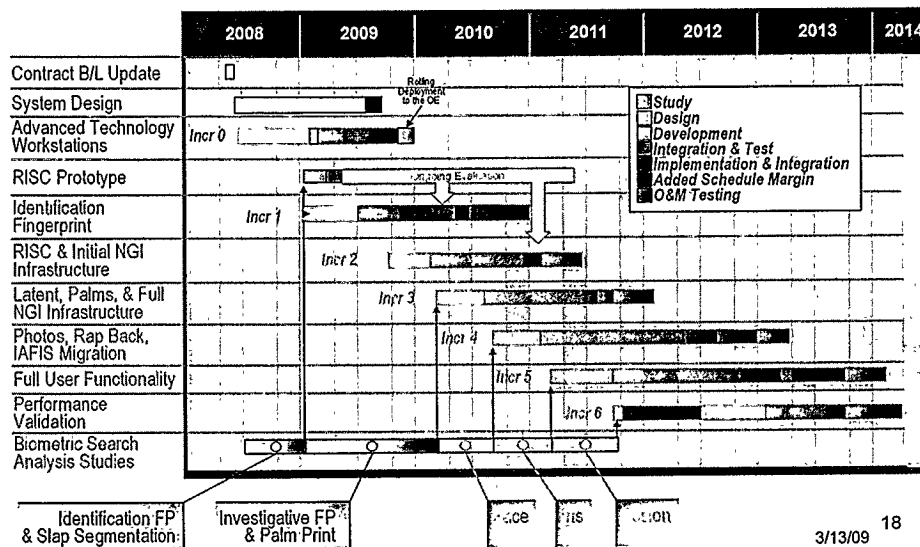
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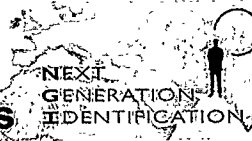
# Incremental Approach

NEXT  
GENERATION  
IDENTIFICATION





## **Incremental Plan Introduction of Capabilities**



- Increment 0 – Advanced Technology Workstations (ATW)
- Increment 1 – AFIT Identification Fingerprint Search Capability
- Increment 2 – Repository for Individuals of Special Concern (RISC)/Initial NGI Infrastructure
- Increment 3 – Latents/Palms/Full NGI Infrastructure
- Increment 4 – Rap Back/Facial & SMT Search
- Increment 5 – Full NGI Functionality
- Increment 6 – Full Operational Capability

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High level view of what happens in each increment  
Details of each increment will be forth coming.





# Increment 4

NEXT  
GENERATION  
IDENTIFICATION

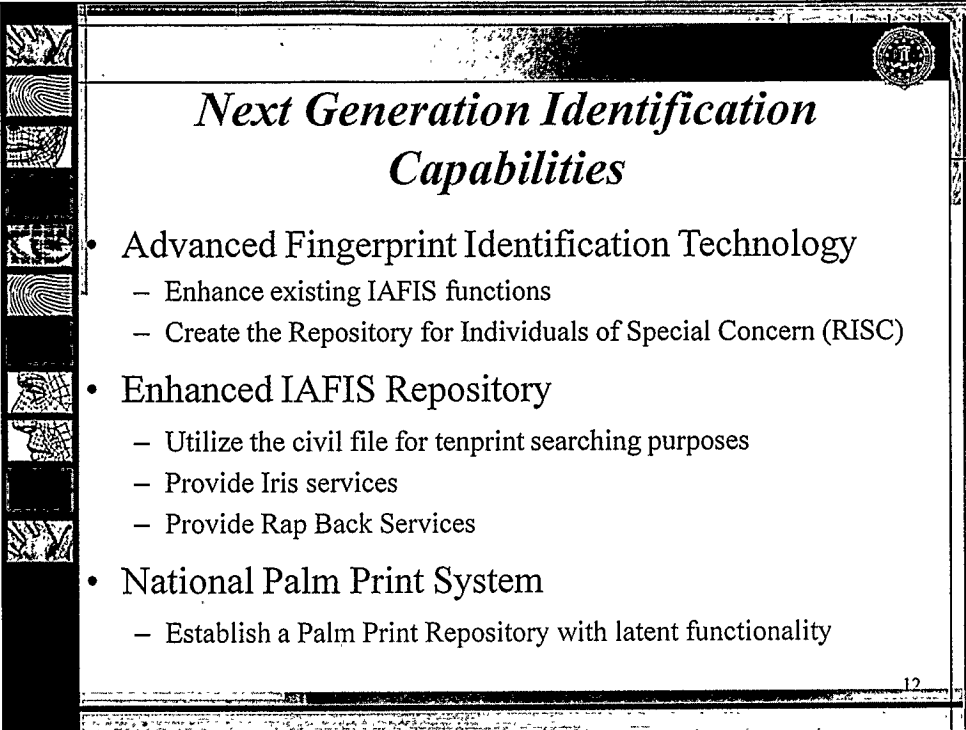


## **Rap Back, Facial & SMT Search Capabilities Migration of remaining IAFIS functionality to NGI**

- Rap Back – notification of criminal activity on previously enrolled individuals
- Facial & SMT – expansion of facial and SMT searches for investigative purposes.
- Disposition reporting via CJIS Wide Area Network (WAN)
- Unique Identity – more complete and accurate history Records by linking the repositories with a Universal Control Number (UCN)
- Fingerprint verification services



b6  
b7C



## *Next Generation Identification Capabilities*

- **Advanced Fingerprint Identification Technology**
  - Enhance existing IAFIS functions
  - Create the Repository for Individuals of Special Concern (RISC)
- **Enhanced IAFIS Repository**
  - Utilize the civil file for tenprint searching purposes
  - Provide Iris services
  - Provide Rap Back Services
- **National Palm Print System**
  - Establish a Palm Print Repository with latent functionality

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• **Advanced Fingerprint Identification Technology (AFIT)** - The AFIT capability will enhance the IAFIS fingerprint processing service by improving enrollment (including latent submissions), retrieval, search and maintenance processes, while focusing on increasing the IAFIS processing capacity, storage capacity and accuracy. AFIT will also create a new repository known as the Repository for Individuals of Special Concern (RISC). This will provide a "red/yellow/green/" response from a rapid identification search of a database containing people of special interest such as Known or Suspected Terrorists, Wanted Persons, and Other Persons of Special Interest. -- Responses will be measured in seconds

• **Enhanced IAFIS Repository** - The Enhanced Repository will combine records from the civil, criminal, and new repositories into an interoperable repository tied together by a unique identity reference. This capability will also deliver a Rap Back Service which will provide authorized users the ability to obtain an automatic notification when an enrolled subject has selected activities occurring on his/her record.

• **National Palm Print System** – The National Palm Print System will be a new service provided by NGI which will allow IAFIS to establish an IAFIS Repository that contains palm prints, provide latent palm print search capability, and provide a search of known palm prints against the ULF.

## **Next Generation Identification (NGI)**

- **Advanced Fingerprint Identification Technology**
  - Enhance existing IAFIS functions
  - Create the Repository for Individuals of Special Concern (RISC)
- **Enhanced IAFIS Repository**
  - Utilize the civil file for ten-print searching purposes
  - Provide multimodal biometric capabilities
  - Provide Rap Back services
- **National Palm Print System**
  - Establish a Palm Print Repository with latent functionality

The NGI Program will be a major upgrade and/or replacement to the FBI's existing IAFIS which will provide new functionality, as well as improve upon current functionality.

By upgrading and/or replacing the existing IAFIS technology through the NGI Program, we will be able to accommodate increased information processing and sharing demands from local, state, federal, and international agencies.

The NGI Program will advance the integration strategies and indexing of additional biometric data that will provide the framework for a future multimodal system to facilitate biometric fusion identification techniques to provide expanded and more accurate identification.

This framework will be expandable, scalable, and flexible to accommodate new technologies, new biometric standards, and will be interoperable with existing systems.

**Quality Check (QC) Automation-** The Quality Check function of IAFIS is one of the first steps in IAFIS tenprint processing in which textual information is reviewed. At one point in time 98% of all transactions required a manual review. As of July 1, 2007, Auto QC was implemented and has reduced the manual processing time from an average of 38 seconds to an average of .75 seconds.

**Interstate Photo System (IPS) or Mugshots -** The IPS capability will enhance the enrollment of photos, the retrieval capability of photos and provide additional search capabilities of photo repositories (including SMT photos) using biographical data and/or facial recognition technology.

**Disposition Reporting Improvements –** Approximately 46% of our records contain dispositions. Therefore, this initiative proposes the development of four enhancements as alternatives for the submission of disposition information: Submissions Via CJIS WAN; Submissions Via III; Modernization of our magnetic tape based Machine Readable Data (MRD) Process; and Direct Federal Court Submissions. A portion of this modernization began on 9/2/07 for existing MRD users.

**Advanced Fingerprint Identification Technology (AFIT) -** The AFIT capability will enhance the IAFS fingerprint processing service by improving enrollment (including latent submissions), retrieval, search and maintenance processes, while focusing on increasing the IAFIS processing capacity, storage capacity and accuracy. AFIT will also create a new repository known as the Repository for Individuals of Special Concern (RISC). This will provide a "red/yellow/green/" response from a rapid identification search of a database containing people of special interest such as Known or Suspected Terrorists, Wanted Persons, and Other Persons of Special Interest. -- Responses will be measured in seconds

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**National Palm Print System –** The National Palm Print System will be a new service provided by NGI which will allow





## Projected Implementation Dates



FP Algorithms  
Rolled  
Flats



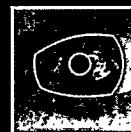
RISC



Palms  
Latent



Photos  
Rap Back



Iris

2010 Aug

2011 April

Sept

2012 Oct

2013 April  
22

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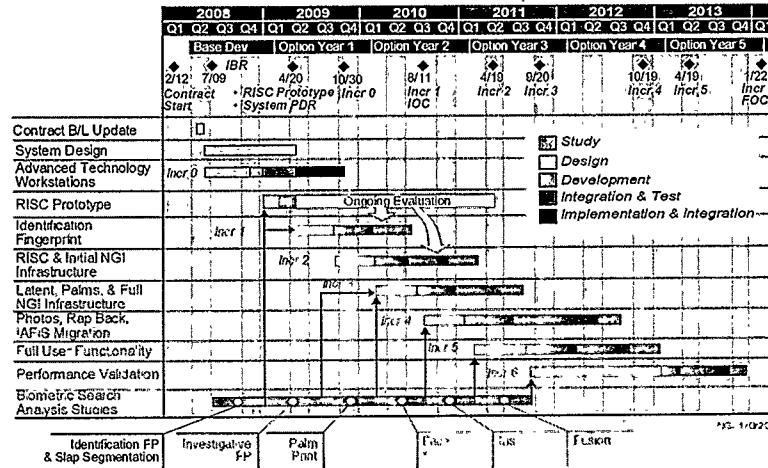
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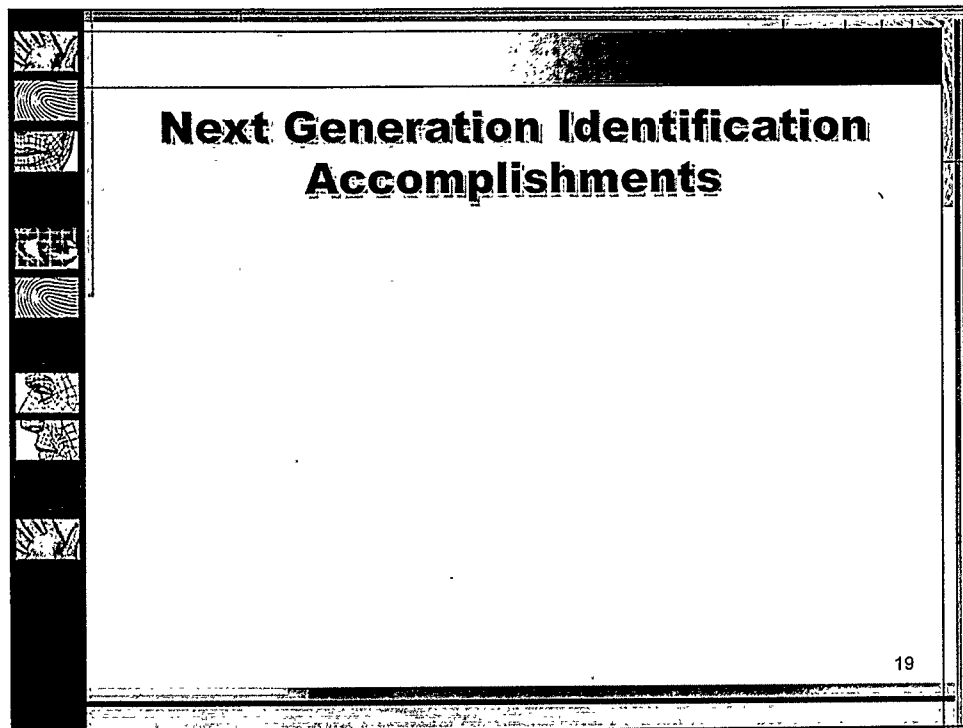
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## Tentative Incremental Time Line



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- Business Rules White Paper– 440 Hours
  - Define strategy/decomposition of Increment 4 Business Rules
  - White Paper will:
    - Determine separation of business logic from business rules
    - Includes analysis of:
      - Legacy IAFIS Business Rules Extraction
        - » III
        - » ITN
      - New NGI Business Rules
        - » Facial
        - » Rap Back
        - » External identity linkages
    - Will document the source of the NGI rules (port from IAFIS or develop new) and how they will be implemented.
- Work Product(s): White Paper and TIM
  - Schedule Period: PDR



## **External Repository Record Link**

- Provide functionality for NGI to link jointly held records with IDENT
- Support the exchange of information with IDENT based on linked records
- Provide notification to IDENT of NGI activity on linked records
- Receive notification of IDENT encounter of a linked record (i.e., an IAFIS Wanted person, IVF)
- Provide Want owners notifications of IDENT encounter
- Provide DHS/LESC notification of IAFIS/NGI encounters of IVF records
- Provide RAP Back services

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***NGI***

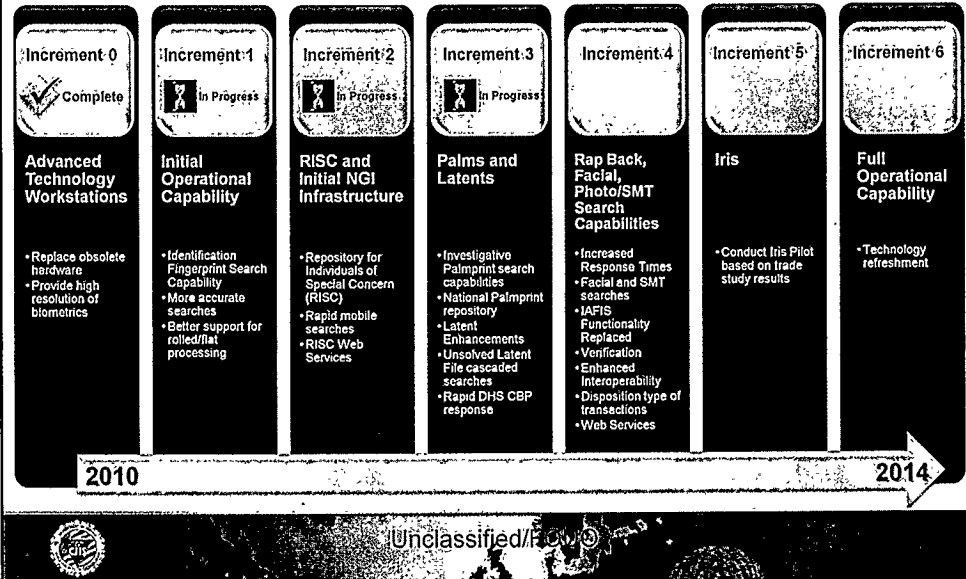
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***Enhanced IAFIS Repository***

- **Functionality**
  - Provide Identity Management Services
  - Provide Rap Back Services
    - Automatic notification of enrolled subject
  - Expand Repository Infrastructure
  - Provide Iris Services
  - Five Additional Repositories



## NGI Implementation Schedule





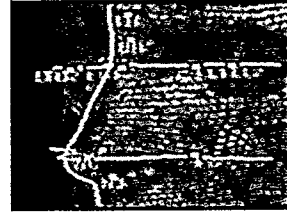
## Rap Back, Facial, SMT Search Capabilities, Migration of Remaining IAFIS Functionality (Increment 4)



- ▶ Rap Back notification of criminal activity on previously enrolled individuals
- ▶ Facial Search
- ▶ Text based scars, marks, and tattoo (SMT) searches
- ▶ Enhanced Interoperability to include transition of shared services to NGI
- ▶ Fingerprint verification services
- ▶ Improved response times

### Resulting Benefits

- ▶ Enhance public safety
- ▶ National level investigative searches of photos/SMTs
- ▶ More accurate and complete criminal history records
- ▶ Flexible and scalable architecture for future needs



Human



Animal



Plant



Flag



Object



Abstract



Symbol



Other



Unclassified//FOUO

## **Full Interoperability**

- Concept of Operations signed 02/16/2006
- Capabilities
  - Dedicated Biometric Search Capability
  - Linking of Repository Records
  - Global Critical Data Set
  - NCI-Initiatives supporting Interoperability
    - Advanced Fingerprint Identification Technology (AFIT)
    - RAP Back
    - Photo
- Continuing to work with DHS and DOS
  - Policy issues/MOU
  - Incremental deliverables by Fiscal Year
  - Automated response from IDENT

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    - Photo
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  - Policy issues/MOU
  - Incremental deliverables by Fiscal Year
  - Automated response from IDENT



## ***Enhanced IAFIS Repository Initiative***

### ***Current Challenges with IAFIS***

- Content and format of criminal and civil repositories differ; it is difficult to transfer records between them.
- Civil repository submissions are stored chronologically; multiple submissions for an individual result in multiple unlinked datasets.
- The civil repository is difficult to search due to structural difficulties; Attempts at applying for employment under a second identity sometimes go undetected.
- No cross-reference between civil and criminal repositories

### ***Benefits with incorporation of planned enhancements***

- Consolidate multiple individual submissions for an individual into a single dataset
- Interoperability between civil and criminal repositories
- Will extend search, storage, file maintenance, and response generation to the civil repository
- Civil repository will be searched when criminal data is submitted on an individual who has no criminal history. Civil data found in the repository will be consolidated with the newly submitted criminal data.
- Rap Back, new civil repository service



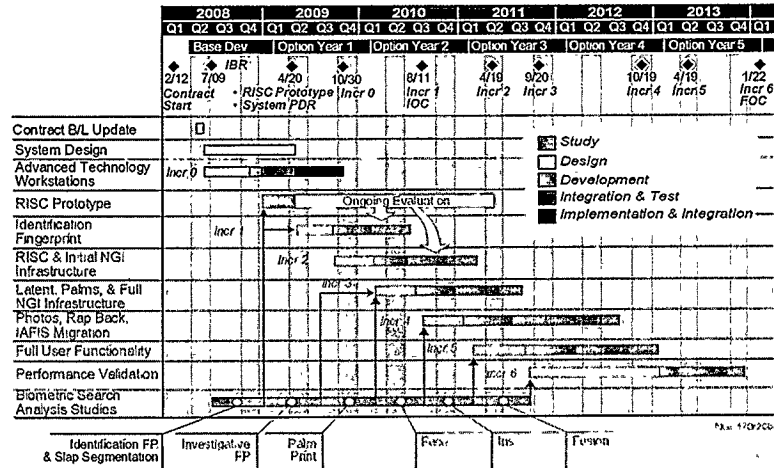
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# Tentative Incremental Time Line





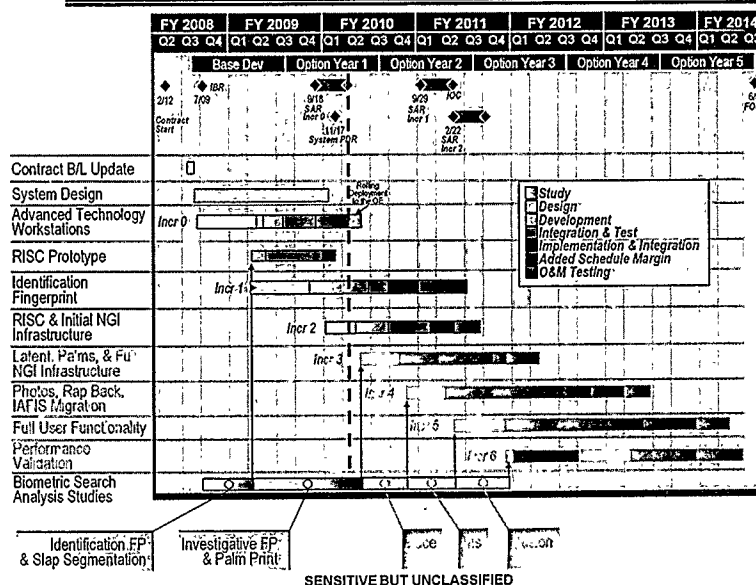
## Interoperability Capabilities Off-Site Meeting Agenda



### DAY 2

- Review and discuss expected additional IOC capabilities (cont'd from Day 1)
  - 10-Print Full Deployment
    - Primary response time
    - TPRS for secondary referrals from primary
    - Transaction capacity
  - Flats for criminal justice (beyond POE Primary)
    - Border Patrol request for search only
- Transaction Volume Review/Discussion (2008, 2009 & 2010, 2010+)
  - What does TVS mean to each Department?
  - FBI searches to IDENT
  - DHS searches to IAFIS
  - Volume
  - Response times
  - TVS versus Anticipated
- Storage of EID for Shared Data
- Biometrics with hit notifications
  - Rap Back for IDENT stakeholders
- COOP
- Automated Shared Data updates
- Review the day's progress

## NGI Development Timeline



**Focus on providing status for Increments 0 through 2 only and talk about trade studies.**

### NGI Congressional Reporting Requirements

NGI's inability to finalize program requirements and a budget and schedule baseline for NGI raises the possibility of significant budget overages and schedule delays. The FBI is directed to notify the House and Senate Committees on Appropriations prior to acceptance of any Engineering Change Proposal that will change NGI's Incremental Development Plan or the Integrated Master Schedule as they existed on 04/14/2009. With respect to program scope, the FBI is directed to report to the House and Senate Committees on Appropriations within 120 days of the enactment of this Act on the standards the Bureau will use to assess the maturity of any biometric indicator being considered for inclusion in NGI.

Assessment of Biometrics Report due to Finance Division on 03/07/2010.  
Report due to Congress on 04/08/2010 (120 days after enactment). Report will focus on Technology readiness; Privacy issues; Return on Investment; and Purpose (Investigative versus identification).

# Department Investment Review Board

## NGI Objectives, Functions, and Benefits by Increment

Increment	Objective	Functionality	Benefit
0 (Completed)	• Advanced Technology Workstation	• Replace Service Provider workstation	• Use of commodity platform for Human-Machine Interface (HMI) lowers Total Cost of Ownership (TCO)
1 (In Progress)	• Initial Operational Capability (IOC)	• Advanced Fingerprint Identification Technology (AFIT) identification • Establish and maintain criminal/civil linkages	• More accurate fingerprint search • Better support for flats and less than 10 fingers • Begin building repository unique identity relationships
2 (In Progress)	• Initial deployment of NGI infrastructure • Objective Repository for Individuals of Special Concern (RISC) deployment	• RISC rapid search using NGI infrastructure	• Fast RISC response times • Opportunity to evaluate NGI infrastructure under operational use
3* (Begin in FY10)	• Initial deployment of NGI workflow • National Palmprint System	• Investigative fingerprint and palmprint on NGI infrastructure	• All latent functionality hosted on NGI infrastructure • National Palmprint System
4 (Begin in FY10)	• Retirement of legacy IAFIS applications • High priority NGI functionality	• Rap back • Shared services • EIR operational • Facial and Scars, Marks, and Tattoos (SMT) search • Disposition reporting via CJIS WAN and NCIC • Unique identity • RISC notifications • Fingerprint verification Services • All legacy HMI capabilities re-implemented	• Greater capacity, faster response time, higher accuracy, higher availability • Notification of criminal activity on previously cleared individuals • Full DHS Interoperability to include transition of shared services to NGL record linking, and automated hit notifications and latent searches of the IDENT gallery • Access to subject information spanning multiple repositories • Expansion of facial and SMT search for investigative purposes • More complete and accurate history records • Automated notification of activity to contributors of RISC records • Identity verification using 10 or fewer fingerprints
5	• Full deployment of NGI functional requirements	• All NGI functionality	• All NGI user functionality available
6	• Full Operational Capability	• All performance specifications met or exceeded	• Completed NGI system

\* Proposed DHS 10 Second Response

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8

10 second DHS response time – Increment 3 (proposed)

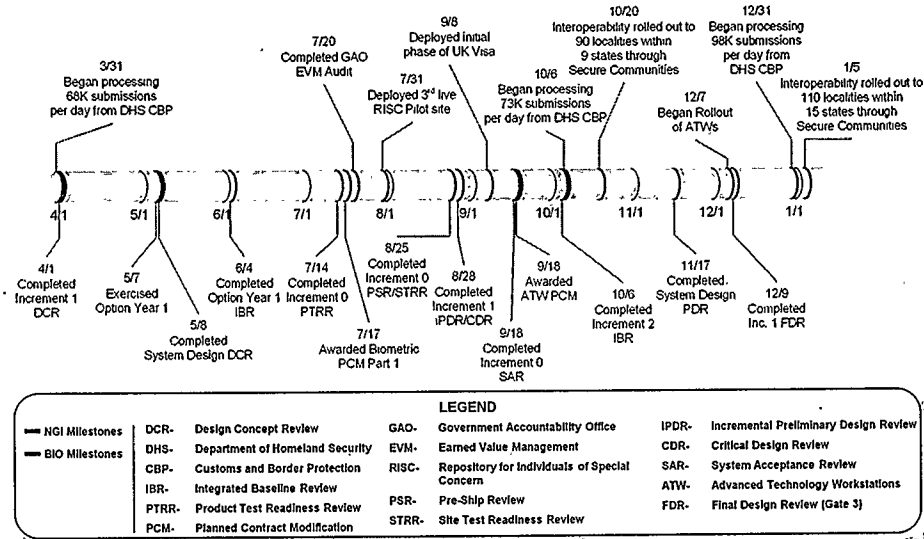
\$22 M

-\$11M Development

-\$11M O/M

CJIS pursuing rapid response with IAFIS prior to NGI Increment 3.

## Project Status – Milestones Timeline



- During FY 2009, the CJIS.RISC Pilot provided the first live hit notifications to law enforcement officers on the street.
- The following states are submitting live data:
  - MN – deployed 11/28/07
  - OH – deployed 03/06/09
  - TX – deployed 07/31/09
- FL began submitting test data on 06/27/08
- We are in the process of executing an MOU to begin testing with CA DOJ and DOD
- UK is a pilot site for Law Enforcement purposes only
- GAO “Review of Government-wide Policies and Procedures in Using EVM” that was conducted from March to July 2009.
- Biometric Trade Study Part I (Identification Fingerprint Search, RISC Rapid Search, and Slap Segmentation) Planned contract modification awarded on July 20, 2009.
- ATW Part 2 planned contract modification awarded on August 19, 2009.
- Increment 1 Preliminary Design Review/Critical Design Review was held on August 26-28, 2009.
- In August 2009, established the Rap Back Task Force.
- Completed collection of palm prints from over 1,000 subjects in support of the Investigative Fingerprint and Palm Print Trade study.
- Significant increase in IDENT/IAFIS Interoperability access for state and local law enforcement due to ICE Secure Communities Program.
- Began processing 68,000 IAFIS submissions per day from DHS Customs and Border Protection Port-of-Entry Primary via DHS IDENT for foreign visitors traveling to the U.S. on March 31, 2009.

## Department Investment Review Board

### Department Certification Assessment

Stakeholder Buy-In and Value	
Certification Statement	2. Program sponsor and user organizations are identified, appropriately engaged, and have demonstrated buy-in to the program.
PMO Self-Assessment	<ul style="list-style-type: none"> <li>The Executive Program Sponsor is Executive Assistant Director Louis E. Grever of the FBI Science and Technology Branch.</li> <li>NGIPO provided support for the March 2010 meeting of the Rap Back Service Task Force.</li> <li>Advisory Process and Compact Council Process include participation in the Increment 2 Preliminary Design Review held January 26-28, 2010 and Critical Design Review held April 20-22, 2010. Representatives from APB and Compact Council were invited and represented.</li> <li>NGI has a change management system to manage changes to scope, costs, schedule, and risk. NGI Program established a two-tier change management process: NGI Executive Change Control Board (ECCB) and NGI Technical Review Board (TRB).</li> </ul> <p>As an example of NGI's stakeholder involvement and communication, contact was made during 2010 with the following entities: Department of Defense (DoD); the Biometric Task Force; REACH Conference; the Facial Identification Scientific Working Group; CJIS Systems Officers from all states; and the Compact Council Standards Committee.</p> <ul style="list-style-type: none"> <li>Collaborated with the DoD to identify and resolve potential issues with their participation in the RISC Pilot MOU. Obtained signatures from DoD and CJIS to complete the MOU. MOU's were also signed for the states of Georgia and California for future participation in the RISC.</li> <li>Participated in 2010 APB meetings providing discussion on EBTS, Iris, Latent, and Rap Back services.</li> <li>Participated in the 2010 Compact Council meetings providing discussion on NGI updates, Transition to Unique Identifying Number, and Recommendations for Advising Civil Applicants of Privacy Act Notices</li> </ul>
Department Assessment	
Qualifiers	

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## Conclusion - The Bottom Line

Top 4 key messages for DIRB members today are:

- 1) Solidified program management by increment allowing for:
  - Proper tracking of spending
  - Consistent reporting to all entities (i.e., OMB, DOJ, FBI, etc.)
  - Combination of the NGI and BIO OMB Exhibits 300
  - Consistent reporting to Federal IT Dashboard
- 2) Continued focus on holding LM to fair and reasonable cost for execution of contract
- 3) NGI is focusing on the customer
  - Continue to assess workload and demand requirements that could require additional scalability in the future
  - Focus Groups for Rap Back
  - US VISIT CBP 30 seconds to 10 seconds
  - RISC
  - Secure Communities
- 4) NGI is delivering results
  - Advanced Technology Workstations are operational

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## Next Generation Identification

- Next Generation Identification (NGI) will protect the United States by providing proactive investigative and intelligence biometric capabilities to Homeland Security, Law Enforcement and Defense communities throughout the nation. It will capitalize on the nexus between law enforcement and counter terrorism through biometric information sharing to proactively disrupt terrorist activities and improve intelligence. Citizens in positions of trust will be flagged for rap back to protect national security. Flat fingerprints will be processed through wireless access in real-time with rapid notification back to front line law enforcement officers. Comprehensive criminal history information will be fused with multi-modal biometrics to aid investigations by accessing biometric databases across the US Government.

Slide 22

# Program Initiatives

- Advanced Fingerprint Identification Technology including the Enhanced Terrorist Identification Service (ETIS) - Increase IAFIS processing capacity, storage capacity, & accuracy, decrease response times, provide new processing capability, rapid terrorist/wanted person fingerprint check (ETIS).
- QC Automation Functionality - Automate manual Quality Check (QC) processes and provide quicker responses and consistency.
- Interstate Photo System - Allow photo submissions independent of arrest, bulk submissions, photos other than facial, photos with civil submissions, and multi-modal potential.
- Disposition Reporting Improvements - Allow electronic submissions via CJIS WAN using EFTS and III message formats, modernization of the Machine Readable Data (MRD) process, direct Federal Court submissions.
- Enhanced IAFIS Repository - New capabilities for civil records, civil record consolidation, Rap Back Service, multi-modal potential.
- National Palm Print System (NPPS) - Receive, store, and search palm prints, allow bulk submissions, search unsolved latent file, multi-modal functionality.

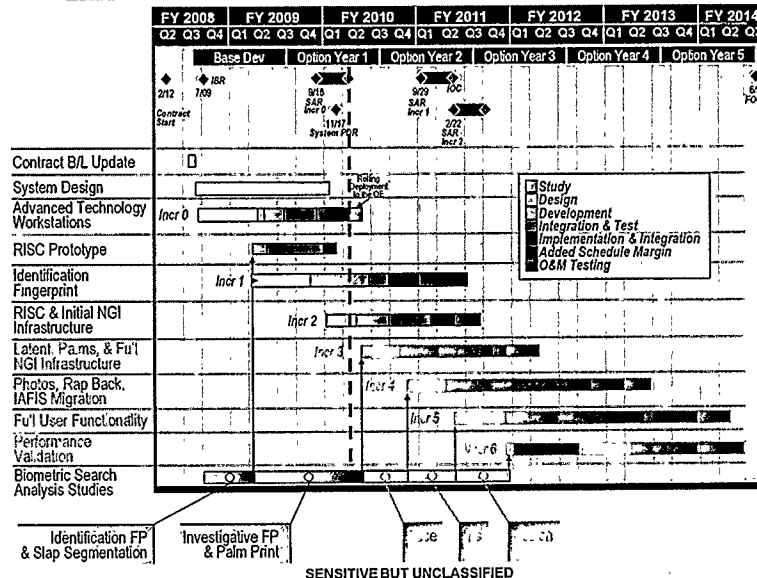
Slide 25

# Enhanced IAFIS Repository

- ☒ Current Functionality
  - Criminal And Civil – 2 Logical Areas
  - Unable To Seamlessly Move Data Between Files
- ☒ New Functionality
  - New Capabilities For Civil Records
  - Civil Record Consolidation
  - Rap Back Service
  - Multi-modal Potential
- ☒ Benefits
  - Notify Responsible Agency Regarding Criminal Offenses Of Individuals In Sensitive Positions
  - Automatically Allows For Transition Of Files Between Civil And Criminal Repositories
  - Increases Repository Capacity

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## NGI Development Timeline



**Focus on providing status for Increments 0 through 2 only and talk about trade studies.**

### NGI Congressional Reporting Requirements

NGI's inability to finalize program requirements and a budget and schedule baseline for NGI raises the possibility of significant budget overages and schedule delays. The FBI is directed to notify the House and Senate Committees on Appropriations prior to acceptance of any Engineering Change Proposal that will change NGI's Incremental Development Plan or the Integrated Master Schedule as they existed on 04/14/2009. With respect to program scope, the FBI is directed to report to the House and Senate Committees on Appropriations within 120 days of the enactment of this Act on the standards the Bureau will use to assess the maturity of any biometric indicator being considered for inclusion in NGI.

Assessment of Biometrics Report due to Finance Division on 03/07/2010.  
Report due to Congress on 04/08/2010 (120 days after enactment). Report will focus on Technology readiness; Privacy issues; Return on Investment; and Purpose (Investigative versus identification).

Department Investment Review Board

NGI Objectives, Functions, and Benefits by Increment

Increment	Objective	Functionality	Benefit
0 (Completed)	• Advanced Technology Workstation	• Replace Service Provider workstation	• Use of commodity platform for Human-Machine Interface (HMI) lowers Total Cost of Ownership (TCO)
1 (In Progress)	• Initial Operational Capability (IOC)	• Advanced Fingerprint Identification Technology (AFIT) identification • Establish and maintain criminal/civil linkages	• More accurate fingerprint search • Better support for flats and less than 10 fingers • Begin building repository unique identity relationships
2 (In Progress)	• Initial deployment of NGI infrastructure • Objective Repository for Individuals of Special Concern (RISC) deployment	• RISC rapid search using NGI infrastructure	• Fast RISC response times • Opportunity to evaluate NGI infrastructure under operational use
3 (Begin in FY10)	• Initial deployment of NGI workflow • National Palmprint System	• Investigative fingerprint and palmprint on NGI infrastructure • Rapid Response (10 sec) for DHS CBP Primary	• All latent functionality hosted on NGI infrastructure • National Palmprint System
4 (Begin in FY10)	• Retirement of legacy IAFIS applications • High priority NGI functionality	• Rap back • Shared services • EIR operational • Facial and Scars, Marks, and Tattoos (SMT) search • Disposition reporting via CJIS WAN and NCIC Unique Identity • RISC notifications • Fingerprint verification Services • All legacy HMI capabilities re-implemented	• Greater capacity, faster response time, higher accuracy, higher availability • Notification of criminal activity on previously cleared individuals • Full DHS interoperability to include transition of shared services to NGI, record linking, and automated hit notifications and latent searches of the IDENT gallery • Access to subject information spanning multiple repositories • Expansion of facial and SMT search for investigative purposes • More complete and accurate history records • Automated notification of activity to contributors of RISC records • Identity verification using 10 or fewer fingerprints
5	• Full deployment of NGI functional requirements	• All NGI functionality	• All NGI user functionality available
6	• Full Operational Capability	• All performance specifications met or exceeded	• Completed NGI system

\* Proposed DHS 10-Second-Response

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10 second DHS response time – Increment 3 (proposed)

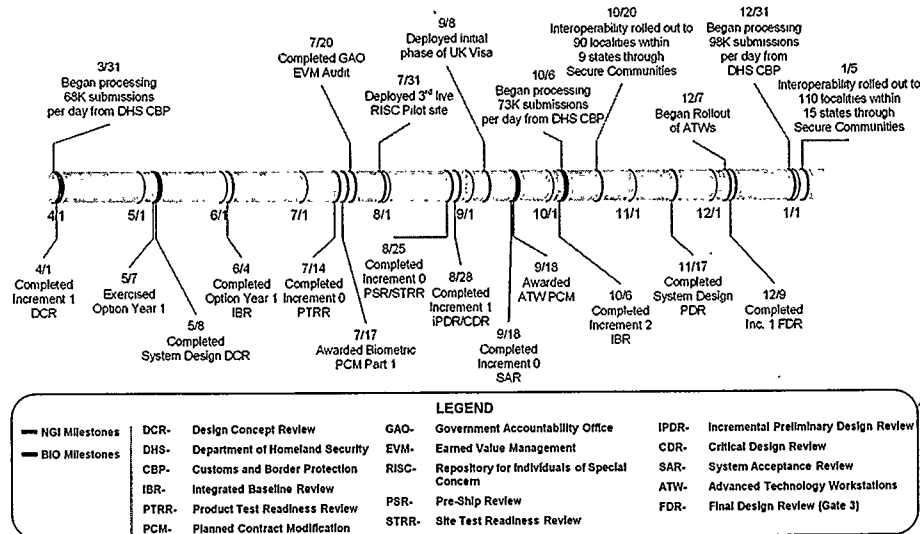
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CJIS pursuing rapid response with IAFIS prior to NGI Increment 3.

## Project Status – Milestones Timeline



- During FY 2009, the CJIS RISC Pilot provided the first live hit notifications to law enforcement officers on the street.
- The following states are submitting live data:
  - MN – deployed 11/28/07
  - OH – deployed 03/06/09
  - TX – deployed 07/31/09
- FL began submitting test data on 06/27/08
- We are in the process of executing an MOU to begin testing with CA DOJ and DOD
- UK is a pilot site for Law Enforcement purposes only
- GAO “Review of Government-wide Policies and Procedures in Using EVM” that was conducted from March to July 2009.
- Biometric Trade Study Part I (Identification Fingerprint Search, RISC Rapid Search, and Slap Segmentation) Planned contract modification awarded on July 20, 2009.
- ATW Part 2 planned contract modification awarded on August 19, 2009.
- Increment 1 Preliminary Design Review/Critical Design Review was held on August 26-28, 2009.
- In August 2009, established the Rap Back Task Force.
- Completed collection of palm prints from over 1,000 subjects in support of the Investigative Fingerprint and Palm Print Trade study.
- Significant increase in IDENT/IAFIS Interoperability access for state and local law enforcement due to ICE Secure Communities Program.
- Began processing 68,000 IAFIS submissions per day from DHS Customs and Border Protection Port-of-Entry Primary via DHS IDENT for foreign visitors traveling to the U.S. on March 31, 2009.

## Department Investment Review Board

### Department Certification Assessment

Stakeholder Buy-In and Value	
Certification Statement	2. Program sponsor and user organizations are identified, appropriately engaged, and have demonstrated buy-in to the program.
PMO Self-Assessment	<ul style="list-style-type: none"> <li>The Executive Program Sponsor is Executive Assistant Director Louis E. Grever of the FBI Science and Technology Branch.</li> <li>NGIPO provided support for the March 2010 meeting of the Rap Back Service Task Force.</li> <li>Advisory Process and Compact Council Process include participation in the Increment 2 Preliminary Design Review held January 26-28, 2010 and Critical Design Review held April 20-22, 2010. Representatives from APB and Compact Council were invited and represented.</li> <li>NGI has a change management system to manage changes to scope, costs, schedule, and risk. NGI Program established a two-tier change management process: NGI Executive Change Control Board (ECCB) and NGI Technical Review Board (TRB).               <ul style="list-style-type: none"> <li>Interoperability changes are vetted through NGI ECCB and TRB as necessary.</li> </ul> </li> </ul> <p>As an example of NGI's stakeholder involvement and communication, contact was made during 2010 with the following entities: Department of Defense (DoD); the Biometric Task Force; REACH Conference; the Facial Identification Scientific Working Group; CJIS Systems Officers from all states; and the Compact Council Standards Committee.</p> <ul style="list-style-type: none"> <li>Collaborated with the DoD to identify and resolve potential issues with their participation in the RISC Pilot MOU. Obtained signatures from DoD and CJIS to complete the MOU. MOU's were also signed for the states of Georgia and California for future participation in the RISC.</li> <li>Participated in 2010 APB meetings providing discussion on EBTS, Ins. Latent, and Rap Back services.</li> <li>Participated in the 2010 Compact Council meetings providing discussion on NGI updates, Transition to Unique Identifying Number, and Recommendations for Advising Civil Applicants of Privacy Act Notices</li> </ul>
Department Assessment	
Qualifiers	

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## Conclusion - The Bottom Line

Top 4 key messages for DIRB members today are:

- 1) Solidified program management by increment allowing for:
  - Proper tracking of spending
  - Consistent reporting to all entities (i.e., OMB, DOJ, FBI, etc.)
  - Combination of the NGI and BIO OMB Exhibits 300
  - Consistent reporting to Federal IT Dashboard
    - Combination of the NGI and BIO IT Dashboard
- 2) Continued focus on holding LM to fair and reasonable cost for execution of contract
- 3) NGI is focusing on the customer
  - Continue to assess workload and demand requirements that could require additional scalability in the future
  - Focus Groups for Rap Back
  - Working Groups on Latent Interoperability
  - 10 second response for DHS CBP Primary
  - RISC
  - Deployment of interoperability to additional federal, state and local law enforcement
  - Deployment of interoperability to additional authorized non-criminal justice agencies
  - Enhanced interoperability to FBI Agents utilizing QCP devices
- 4) NGI is delivering results
  - Advanced Technology Workstations are operational

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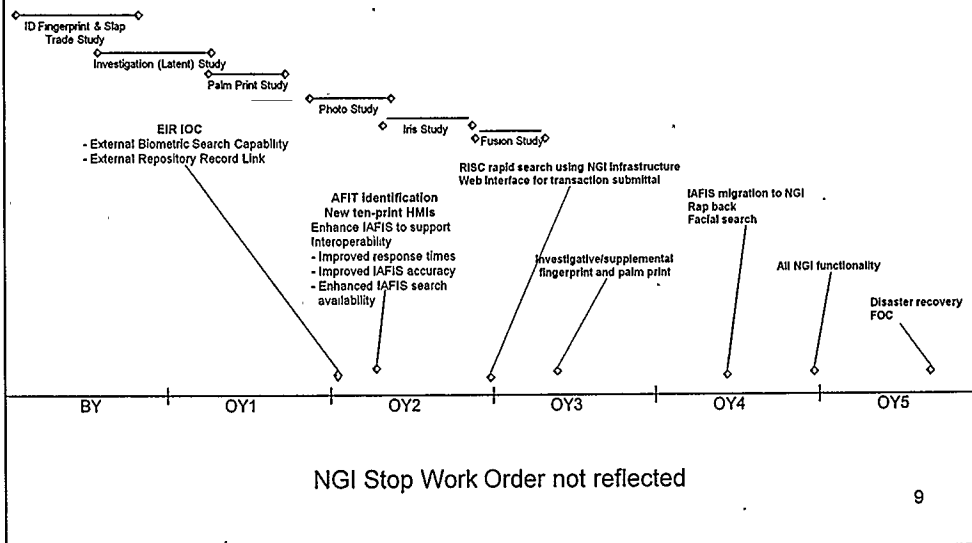
## External Repository Record Link



- Provide functionality for NGI to link jointly held records with IDENT
- Support the exchange of information with IDENT based on linked records
- Provide notification to IDENT of NGI activity on linked records
- Receive notification of IDENT encounter of a linked record (i.e., an IAFIS Wanted person, IVF)
- Provide Want owners notifications of IDENT encounter
- Provide DHS/LESC notification of IAFIS/NGI encounters of IVF records
- Provide RAP Back services



## High Level Diagram of Schedule



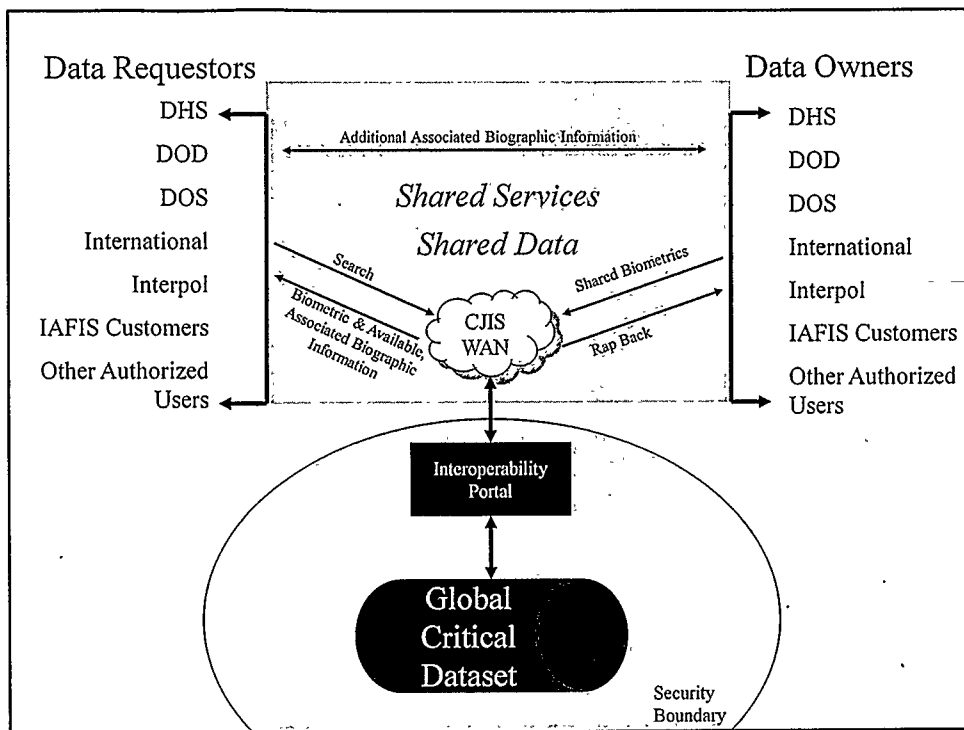


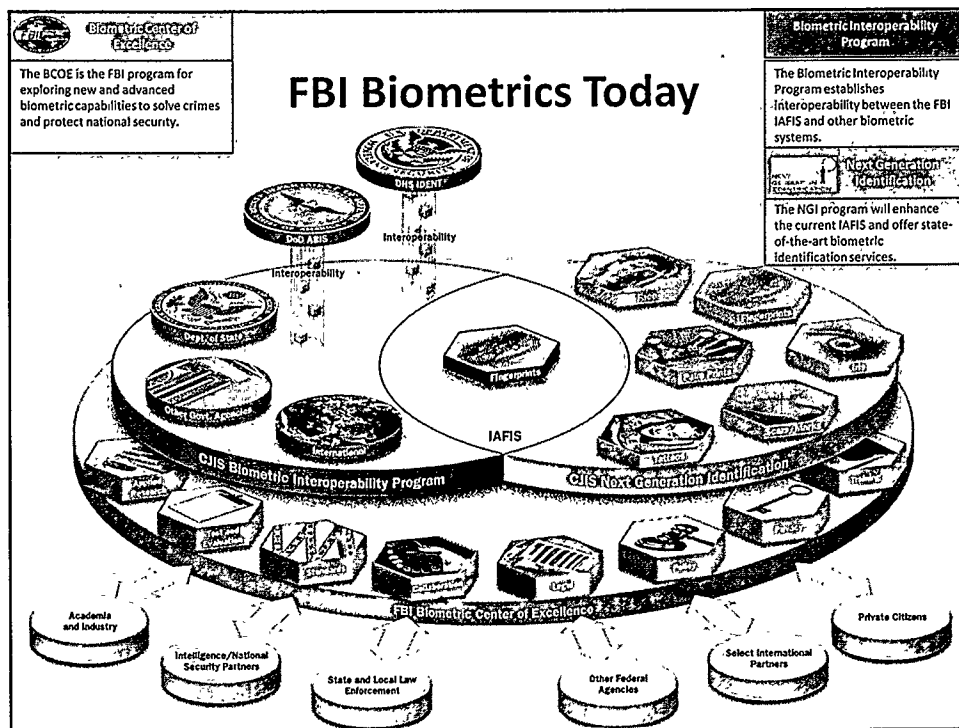
## Record Linking

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- Conceptually links subjects in both IAFIS and IDENT
  - Predicated upon an initial biometric match
- Allows subsequent communications for LE purposes without additional biometric matching
  - Saves line space and computing resources
- Allows notification of subsequent activity on linked records, consistent with RapBack
  - However, requires non-criminal justice agencies to submit fingerprints to retrieve CHRI





NGI will enhance the current IAFIS with new and improved functionality, offering state-of-the-art biometric identification services and collection of multimodal biometrics. The NGI Program consists of seven increments and associated deliverables:

- Advanced Technology Workstations (ATWs)
- Repository of Individuals of Special concern (RISC) Prototype
- Identification Fingerprint Search Capability ~ Faster Algorithm & Improved Accuracy
- Latent & Palm Prints & Full NGI Infrastructure
- Photographs, Rap Back, & IAFIS Migration
- Full User Functionality & Performance Validation

At mid-year FY 2010, biometric trade studies are 40% complete and the roll-out of ATWs is 96% complete. NGI will deliver increments to include improved accuracy of Fingerprints, Rolled and Flat, for operational environment deployment in February 2011; with Palmprints, Latents, Iris, Photos/Facial, Scars, Marks and Tattoos to be delivered in future increments.

All three initiatives supporting the P4 objective are currently on track toward established milestones. At the end of the 2nd Quarter 2010,

- BCOE is at 24% complete of overall life cycle, compared to 18% target;
- BIO is on target at 36% complete of overall life cycle; and,
- NGI is at 33% complete of overall life cycle, compared to target of 29%.

The overall rating for all the P4 objective is a **low Yellow** due to BCOE red status, and NGI and BIO at yellow.

- BCOE is rated **Red** due to the lack of resources. Budget request for 15 FSL was not supported by FD.
- BIO is rated **Yellow** due to risks associated with a changing DHS requirement for a 30 second response vs. 10 second response, the Customs and Border Protection (CBP) Point of Entry (POE) Primary's Criminal Justice status, and Secure Communities resistance from some locations.
- NGI is rated **Yellow** due to the risk of the contractor not adhering to established schedules for the incremental deployment of NGI.

## System Requirements Specifications

This SRS organizes the NGI system requirements into major sections by type:

- ▶ **Functionality** – this section further organizes requirements by type of user service, such as Identification, Verification, Information, Notification, Investigation, and Data Management. Within each user service type, the document organizes requirements by the individual service that the system provides such as Tenprint Fingerprint Identification, Photo Image Retrieval Request, Rap Back Renewal Notification, and Manage Workflow and Work Queues.
- ▶ **Usability** – This section includes those requirements that affect usability, including conformance to common Graphical User Interface (GUI) standards.
- ▶ **Reliability and Availability** – Requirements that address completeness and correctness as well as the availability of the system's various services and recoverability.
- ▶ **Performance and Workload** – Performance requirements specify response times for the system's services. Workload requirements specify average and peak workloads on a yearly, daily, and hourly basis.
- ▶ **Supportability** – These requirements address the development, test, diagnosis, maintenance; and enhancement of the system.



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NGI shall support prioritized Tenprint Fingerprint Identification Searches.

NGI shall support AQC for Tenprint Fingerprint Identification Searches.

NGI shall enroll fingerprints into designated repositories as part of Tenprint Fingerprint Identification Searches.

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NGI shall enroll an Identity as part of a retained Tenprint Fingerprint Identification Search.

NGI shall enroll photos as part of a Tenprint Fingerprint Identification Search.

NGI shall enroll palmprints as part of a Tenprint Fingerprint Identification Search.

NGI shall enroll iris data as part of a Tenprint Fingerprint Identification Search.

NGI shall enroll a Rap Back Subscription as part of a Tenprint Fingerprint Identification Search.

NGI shall enroll Identity Theft Victims as part of a Tenprint Fingerprint Identification Search.

NGI shall enroll supplemental fingerprint and palmprint information as part of a Tenprint Fingerprint Identification Search.

NGI shall support the linking of NGI and External System (e.g., IDENT) records as part of a search.

Linking of NGI and External System records will occur when NGI or the External System enrolls a new identity or receives higher quality fingerprints for an unlinked record.

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NGI shall support Identity maintenance as part of a Tenprint Fingerprint Identification Search.

NGI shall provide an appropriate response to a Tenprint Fingerprint Identification Search request.

A response may include Identity History (i.e., criminal, civil) relevant to the identified subject. NGI may provide an electronic or printed response, as requested by the submitter of the request.

NGI shall provide wanted person information with the Tenprint Fingerprint Identification Search response.



NGI shall support the retrieval of photo information from an External System (e.g., IDENT).

NGI shall provide photo images to External Systems.

NGI shall support the retrieval of palmprint information.

NGI shall support the retrieval of iris information.

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NGI shall support the retrieval of unsolved latent audit trail information.

NGI shall support Other Information requests.

NGI shall support the retrieval of Rap Back Subscription Status.

NGI shall support the retrieval of a Rap Back Identity History Summary.

## 2.4 Investigation Services

The Investigation Service provides a list of candidates based on a one-to-many biometric and/or biographic search. The result set may include an ordered listing of candidates and corresponding information to facilitate the investigative decision process.

NGI shall support enrollment of an Identity as part of an Investigative Search.

Identity enrollment as part of an Investigative Search will only occur when the contributor indicates that a biometric should be retained in an unsolved biometric file.

NGI shall provide external system link identifiers as part of an Investigative Search response.

NGI shall support Subject Search requests based on biographic information.

The search request may be submitted via NCIC, NICS or NGI workstations, or Machine Readable Data (MRD).

NGI shall provide a candidate list in response to a Subject Search request.

The response may contain additional biographical data for each subject, or pointers to other systems that may contain additional data.

NGI shall support Ad Hoc Subject Search requests of Identity History repositories.

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NGI shall support Latent Investigation Searches against designated NGI repository(ies).

NGI shall support Latent Investigation Searches of an external biometric repository.

NGI shall support Latent Investigation Searches from External Systems (e.g., IDENT).

Iris File (UIF), and Unsolved Photo File (UPF)]. With this service, a data owner will receive an unsolicited notification from the system based on event criteria (triggers). In addition, events that trigger a notification on Immigration Violator File (IVF) records will be provided to the Law Enforcement Support Center (LESC).

NGI shall provide notification of record activity on persons who are of special interest.

Special Interest Flags will include Flashes, Wanted Persons, Registered Sexual Offenders, and other persons of special interest.

NGI shall provide Authorized Contributors with notifications of external system activity on a linked record flagged as being of special interest.

NGI shall provide notification of file maintenance activities to criminal record owners.

NGI shall provide notifications of positive identifications against shared data records to the shared data owner (e.g., IDENT).

NGI shall provide an External System (e.g., IDENT) with notifications of activity on a linked record.

NGI shall send notifications to wanting agencies as the result of fingerprint verification activity.

NGI shall send IVF notifications to the LESC.

NGI shall provide a Rap Back Notification Service.

NGI shall provide the owner of an unsolved latent fingerprint with notification of potential fingerprint matches.

NGI shall provide the owner of an SPC File with notification of potential fingerprint matches.

NGI shall provide the owner of an unsolved latent fingerprint with notification of fingerprint decisions.

NGI shall provide the owner of an SPC File fingerprint with notification of fingerprint decisions.

NGI shall provide the owner of an unsolved latent with notification of latent decisions.

NGI shall provide the owner of an SPC File with notification of latent decisions.

NGI shall provide the owner of an unsolved Latent with notification of deletions due to ULF maximum capacity.

NGI shall provide the owner of an unsolved photo with notification of potential facial photo matches as a result of a cascaded search.

NGI shall provide the owner of an SPC File with notification of potential facial photo matches as a result of a cascaded search.

NGI shall support the maintenance of Identity History information.

NGI shall support restoration of Identity History information.

The following requirements are related to the direct enrollment and maintenance of biometrics. Direct biometric enrollment may be done with fingerprints for validation, or without fingerprints when a Memorandum of Understanding (MOU) is in place with the contributor.

NGI shall support direct enrollment of photos.

NGI shall support bulk enrollment of photos.

NGI shall support the maintenance of photos.

NGI shall support direct enrollment of supplemental fingerprint and palmprint information.

NGI shall support bulk enrollment of supplemental fingerprint and palmprint information.

NGI shall support direct enrollment of palmprints.

NGI shall support bulk enrollment of palmprints.

NGI shall support the maintenance of palmprints.

NGI shall support direct enrollment of iris data.

NGI shall support bulk enrollment of iris data.

NGI shall support the maintenance of iris data.

NGI shall support direct enrollment into Rap Back.

NGI shall support the maintenance of Rap Back Subscriptions.

NGI shall support Rap Back Subscription Renewal.

NGI shall support ITF record maintenance requests.

NGI shall support the maintenance of Special Interest records.

NGI shall support Death Notice submissions.

NGI shall support Flash Submissions.

NGI shall support the maintenance of IVF information.

NGI shall support NFF State CPI Notifications.

NGI shall accept an indicator on a Tenprint Fingerprint Identification Search request that specifies if a photo should be included with the fingerprint search response.

The following requirement will support an Authorized Contributor request to search the LESC using an Immigration Alien Query (IAQ) as part of an identification search of the IDENT System. Responses to NGI will be provided as an Immigration Alien Response (IAR).

NGI shall accept an indicator on a Tenprint Fingerprint Identification Search request of the IDENT system that an IAQ be requested of the LESC.

NGI shall accept as part of a Tenprint Fingerprint Identification Search from an External System (e.g., IDENT) an indication of whether or not NGI should establish a link when the search results in a positive identification.

NGI shall accept palmprint images from an Authorized Contributor as part of a Tenprint Fingerprint Identification Search request.

NGI shall allow palmprint images from an Authorized FBI Service Provider as part of a Tenprint Fingerprint Identification Search request.

NGI shall accept iris data input from an Authorized Contributor as part of a Tenprint Fingerprint Identification Search request.

NGI shall allow iris data input from an Authorized FBI Service Provider as part of a Tenprint Fingerprint Identification Search request.

NGI shall accept a Rap Back Enrollment from an Authorized Contributor as part of a Tenprint Fingerprint Identification Search request.

NGI shall allow a Rap Back Enrollment from an Authorized FBI Service Provider as part of a Tenprint Fingerprint Identification Search request.

NGI shall require a designation of which event type(s) (e.g., civil, criminal, external system) will trigger Rap Back notifications for the associated Identity when Rap Back Enrollment is indicated as part of a Tenprint Fingerprint Identification Search request.

NGI shall accept a Rap Back subscription expiration date for the associated Identity, as part of a Tenprint Fingerprint Identification Search request.

NGI shall accept a designation of the Authorized Contributor(s) that should receive Rap Back Notifications for the associated Identity, as part of a Tenprint Fingerprint Identification Search request.

NGI shall accept a UCN(s) as part of a Tenprint Fingerprint Identification Search request.

NGI will optionally accept one or more quoted Universal Control Numbers (UCN) when a contributor has made an identification at the state level.

NGI shall accept an Identity History Summary indicator as part of a Tenprint Fingerprint Identification Search request.

NGI shall enroll supplemental fingerprint and palmprint information into the designated repository(ies) based on file maintenance rules as part of a retained Tenprint Fingerprint Identification Search request.

NGI shall provide the capability to uniquely identify supplemental fingerprint and palmprint data enrolled as a result of a Tenprint Fingerprint Identification Search request.

NGI shall enroll an Identity into Rap Back, when indicated, as part of a retained Tenprint Fingerprint Identification Search request.

NGI shall assign a default Rap Back subscription expiration date when an expiration date is not specified as part of the Tenprint Fingerprint Identification Search request.

NGI shall assign the default Rap Back subscription expiration date when the expiration date specified, as part of the Tenprint Fingerprint Identification Search request, exceeds the maximum allowable Rap Back subscription period.

NGI shall reject the Tenprint Fingerprint Identification Search request when the search is marked as SBDA and results in a non-identification decision.

NGI shall reject a Rap Back enrollment when the associated Tenprint Fingerprint Identification Search request is rejected.

NGI shall reject a photo enrollment when the associated Tenprint Fingerprint Identification Search request is rejected.

NGI shall reject a palmprint enrollment when the associated Tenprint Fingerprint Identification Search request is rejected.

NGI shall reject an iris enrollment when the associated Tenprint Fingerprint Identification Search request is rejected.

NGI shall reject the supplemental fingerprint and palmprint information enrollment when the associated Tenprint Fingerprint Identification Search request is rejected.

NGI shall maintain an Identity based on file maintenance rules as a result of a Tenprint Fingerprint Identification Search request with a positive identification decision.

NGI shall update Identity History information with the link information contained in a Tenprint Fingerprint Identification Search request from an External System (e.g., IDENT), when indicated.

NGI shall update fingerprint information based on file maintenance rules as a result of a Tenprint Fingerprint Identification Search request with a positive identification decision.

NGI shall create a copy of the Tenprint Fingerprint Identification Search request for the NGI Certification File based on file maintenance rules.

NGI shall advise the Authorized Contributor when a supplemental fingerprint and palmprint is enrolled as a result of a Tenprint Fingerprint Identification Search request, but fails to meet minimum quality standards for supplemental fingerprint and palmprint searching.

NGI shall advise the Authorized FBI Service Provider when a supplemental fingerprint and palmprint is enrolled as a result of a Tenprint Fingerprint Identification Search request, but fails to meet minimum quality standards for supplemental fingerprint and palmprint searching.

NGI shall advise the Authorized Contributor when a supplemental fingerprint and palmprint is not enrolled due to a failed validation of fingerprints to supplemental fingerprint and palmprints when processing a Tenprint Fingerprint Identification Search request.

NGI shall advise the Authorized FBI Service Provider when a supplemental fingerprint and palmprint is not enrolled due to a failed validation of fingerprints to supplemental fingerprint and palmprints when processing a Tenprint Fingerprint Identification Search request.

NGI shall advise the Authorized Contributor when iris data is enrolled as a result of a Tenprint Fingerprint Identification Search request, but fails to meet minimum quality standards for iris searches.

NGI shall advise the Authorized FBI Service Provider when iris data is enrolled as a result of a Tenprint Fingerprint Identification Search request, but fails to meet minimum quality standards for iris searches.

NGI shall advise the Authorized Contributor of the Rap Back Enrollment status as part of a Tenprint Fingerprint Identification Search response.

NGI shall advise the Authorized FBI Service Provider of the Rap Back Enrollment status as part of a Tenprint Fingerprint Identification Search response.

### ***3.1.2 Latent Fingerprint Identification Services***

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The Latent Fingerprint Identification Services will provide the capability to match fingerprint data from Latent Fingerprint Identification Search requests to fingerprint data contained within the NGI fingerprint repositories. Latent Fingerprint Identification Search requests can only be submitted by FBI Field Offices or Authorized FBI Service Providers. Following receipt of the submission by NGI, these transactions will be manually processed by an Authorized FBI Service Provider (Latent Examiner). This service results in an identification decision (i.e., positive identification, non-identification or inconclusive). If the submission does not meet minimum processing criteria (e.g., quality), the submission will be returned with reason for rejection.

The following functional requirements relate to a fingerprint identification search for latent purposes using ten or less fingerprints resulting in an identification decision.

### 3.3.21.3 Record Status Inquiry Outputs

NGI shall provide a response to a Record Status Inquiry request received via NCIC in accordance with the III/NFF Operational and Technical Manual.

### **3.3.22 Administrative Inquiry**

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The Administrative Inquiry (ZI) is used by III participants when there is a need to determine: the presence of a SID or UCN pointer and the date established; single-, multi-state or wanted status; or dates of establishment and/or last update.

#### 3.3.22.1 Record Administrative Inquiry Inputs

NGI shall accept Administrative Inquiries in accordance with the III/NFF Operations and Technical Manual.

The NGI STOT that supports an Administrative Inquiry is ZI.

NGI shall accept a UCN as part of an Administrative Inquiry Request.

NGI shall accept a SID as part of an Administrative Inquiry Request.

These requests arrive from the NCIC communications network.

#### 3.3.22.2 Record Administrative Inquiry Processing

NGI shall retrieve biographic data and III pointer information as part of an Administrative Inquiry Request.

#### 3.3.22.3 Record Administrative Inquiry Outputs

NGI shall provide a response to an Administrative Inquiry request received via NCIC in accordance with the III/NFF Operational and Technical Manual. ***Rap Back Subscription List Request***

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#### 3.3.23.1 Rap Back Subscription List Request Inputs

NGI shall accept a Rap Back Subscription List request from an Authorized Contributor in accordance with the latest EBTS version.

The EBTS TOT that supports the Rap Back Subscription List requests will be developed in accordance with the ANSI/NIST-ITL Data Format for the Interchange of Fingerprint, Facial, and other Biometric Information.

NGI shall allow an Authorized FBI Service Provider to submit a Rap Back Subscription List request.

The NGI STOT that supports the Rap Back Subscription List requests will be developed in accordance

with the NGI Message Definition Database (MDD).

NGI shall require a Rap Back Subscriber identifier as part of a Rap Back Subscription List request.

NGI shall accept a Rap Back Recipient identifier(s) as part of a Rap Back Subscription List request.

#### **3.3.23.2 Rap Back Subscription List Request Processing**

NGI shall retrieve the Rap Back subscription list for the Rap Back Subscriber and Rap Back Recipient(s) specified in the Rap Back Subscription List request.

NGI shall reject the Rap Back Subscription List request when the Rap Back Subscriber identifier is invalid.

#### **3.3.23.3 Rap Back Subscription List Request Outputs**

NGI shall provide a response to an EBTS formatted Rap Back Subscription List request in accordance with the latest EBTS version.

The EBTS TOT that supports a Rap Back Subscription List response will be developed in accordance with the ANSI/NIST-ITL Data Format for the Interchange of Fingerprint, Facial, and other Biometric Information.

NGI shall allow an Authorized FBI Service Provider to view the Rap Back Subscription List response.

NGI shall allow an Authorized FBI Service Provider to print the Rap Back Subscription List response.

### **3.3.24 Rap Back Identity History Summary Request**

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The following functional requirements relate to a Rap Back Subscriber retrieving an Identity History Summary after receipt of a Rap Back Activity Notification.

#### **3.3.24.1 Rap Back Identity History Summary Request Inputs**

NGI shall accept a Rap Back Identity History Summary request from an Authorized Contributor in accordance with the latest EBTS version.

The EBTS TOT that supports the Rap Back Identity History Summary requests will be developed in accordance with the ANSI/NIST-ITL Data Format for the Interchange of Fingerprint, Facial, and other Biometric Information.

NGI shall require a UCN in a Rap Back Identity History Summary request.



NGI shall require a unique Rap Back Notification Identifier in a Rap Back Identity History Summary request.

#### **3.3.24.2 Rap Back Identity History Summary Request Processing**

NGI shall validate that the Authorized Contributor is an active Rap Back Subscriber for the UCN provided in a Rap Back Identity History Summary request.

NGI shall retrieve the Identity History information for the UCN contained in a Rap Back Identity History Summary request.

NGI shall reject a Rap Back Identity History Summary request if the UCN is not valid.

NGI shall reject a Rap Back Identity History Summary request if the Rap Back Notification Identifier is not valid.

#### **3.3.24.3 Rap Back Identity History Summary Request Outputs**

NGI shall provide a response to a Rap Back Identity History Summary request in accordance with the latest EBTS version.

The EBTS TOT that supports a Rap Back Identity History Summary response will be developed in accordance with the ANSI/NIST-ITL Data Format for the Interchange of Fingerprint, Facial, and other Biometric Information.

NGI shall provide an Identity History Summary in response to a Rap Back Identity History Summary request.

NGI shall indicate, on a Rap Back Identity History Summary response, the event that triggered the Rap Back Activity Notification associated with the submitted Rap Back Notification Identifier.

### **3.4 Investigation Services Functional Requirements**

The following section contains the functional requirements supporting Investigation user services.

#### **3.4.1 Subject Search Request**

The Subject Search service provides the determination of the existence of an Identity History based upon searches using biographic descriptors such as name, date of birth, sex, and race. A Subject Search request contains biographic descriptors from which NGI generates a list of possible candidate matches.

##### **3.4.1.1 Subject Search Request Inputs**

NGI shall accept Subject Search requests from an Authorized Contributor in accordance with the III/NFF Operational and Technical Manual.

These requests arrive from the NCIC communications network.

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# Project Baseline Agreement (PBA)

## Project Background Information

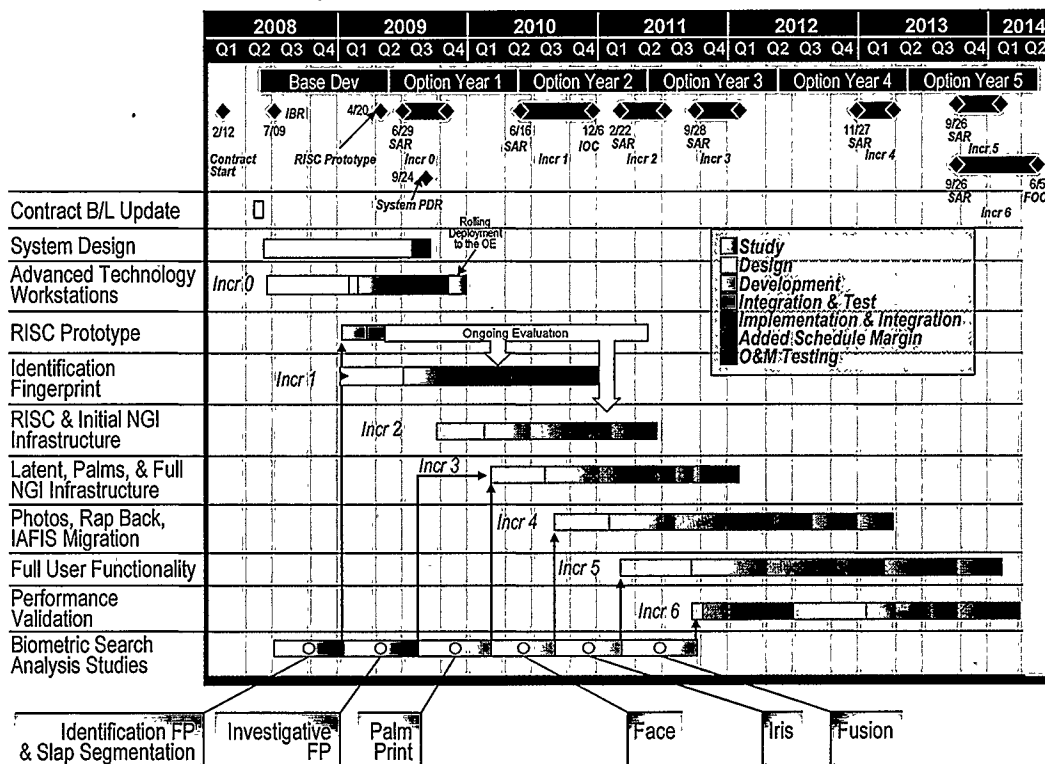
**Program Name:** Next Generation Identification (NGI) Program

**Program Description:** The FBI has initiated the Next Generation Identification (NGI) program in response to advances in technology, customer requirements, and the increasing capacity and performance demands placed upon the Integrated Automated Fingerprint Identification System (IAFIS). This program will advance the FBI's biometric identification services, providing an incremental replacement of IAFIS, while introducing essential new functionality. NGI will offer state-of-the-art biometric identification services and provide a flexible framework of core capabilities that will serve as a platform for multi-modal functionality as well as increased capacities, and shorter response times.

NGI will also allow the FBI to establish a fingerprint identification system that is compatible with other biometric systems; increase the accessibility and number of fingerprint records; and provide latent palmprint search capabilities. NGI will enable the FBI to provide biometric and biographic services to enhance interoperability between stakeholders at all levels of government, including local, state, federal, and international partners. NGI will accommodate the increasing need for pre-employment background checks, licenses, and will support the increase in border patrol and entry/exit checks.

The NGI system will be delivered in six increments as illustrated in Figure 1 below. Table 1 lists the objectives, functionality, and benefits to be delivered by each NGI increment.

**Figure 1: NGI Incremental Development Approach**



**Table 1: NGI Objectives, Functions, and Benefits by Increment**

Increment	Objective	Functionality	Benefit
I0	<ul style="list-style-type: none"> <li>Advanced Technology Workstation</li> </ul>	<ul style="list-style-type: none"> <li>Replace Service Provider workstation</li> </ul>	<ul style="list-style-type: none"> <li>Use of commodity platform for HMI lowers Total Cost of Ownership (TCO)</li> </ul>
I1	<ul style="list-style-type: none"> <li>Initial Operational Capability (IOC)</li> </ul>	<ul style="list-style-type: none"> <li>Advanced Fingerprint Identification Technology (AFIT) identification</li> <li>Establish and maintain criminal/civil linkages</li> </ul>	<ul style="list-style-type: none"> <li>More accurate fingerprint search</li> <li>Better support for flats and less than 10 fingers</li> <li>Begin building repository unique identity relationships</li> </ul>
I2	<ul style="list-style-type: none"> <li>Initial deployment of NGI infrastructure</li> <li>Objective Repository for Individuals of Special Concern (RISC) deployment</li> </ul>	<ul style="list-style-type: none"> <li>RISC rapid search using NGI infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Fast RISC response times</li> <li>Opportunity to evaluate NGI infrastructure under operational use</li> </ul>
I3	<ul style="list-style-type: none"> <li>Initial deployment of NGI workflow</li> <li>National Palmprint System</li> </ul>	<ul style="list-style-type: none"> <li>Investigative fingerprint and palmprint on NGI infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>All latent functionality hosted on NGI infrastructure</li> <li>National Palmprint System</li> </ul>
I4	<ul style="list-style-type: none"> <li>Retirement of legacy IAFIS</li> <li>High priority NGI functionality</li> </ul>	<ul style="list-style-type: none"> <li>IAFIS migration to NGI</li> <li>Rap back</li> <li>Shared services</li> <li>EIR operational</li> <li>Facial and Scars, Marks, and Tattoos (SMT) search</li> <li>Disposition reporting via CJIS WAN and NCIC Unique identity</li> <li>RISC notifications</li> <li>Fingerprint verification Services</li> <li>All legacy HMI capabilities re-implemented</li> </ul>	<ul style="list-style-type: none"> <li>Greater capacity, faster response time, higher accuracy, higher availability</li> <li>Notification of criminal activity on previously cleared individuals</li> <li>Full DHS Interoperability</li> <li>Access to subject information spanning multiple repositories</li> <li>Expansion of facial and SMT search for investigative purposes</li> <li>More complete and accurate history records</li> <li>Automated notification of activity to contributors of RISC records</li> <li>Identity verification using 10 or fewer fingerprints</li> </ul>
I5	<ul style="list-style-type: none"> <li>Full deployment of NGI functional requirements</li> </ul>	<ul style="list-style-type: none"> <li>All NGI functionality</li> </ul>	<ul style="list-style-type: none"> <li>All NGI user functionality available</li> </ul>
I6	<ul style="list-style-type: none"> <li>Full Operational Capability</li> </ul>	<ul style="list-style-type: none"> <li>All performance specifications met or exceeded</li> </ul>	<ul style="list-style-type: none"> <li>Completed NGI system</li> </ul>

**Branch Name:** Science & Technology Branch

**Branch Ranking:** TBD



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## **Record Linking on Civil Data**

**Purpose:** Formulate the FBI CJIS Division Interoperability Initiatives Unit (IIU) policy regarding record linking on civil data that will be maintained in the Next Generation Identification (NGI) system.

**Issue:** Dissemination of civil data is severely restricted. In the current Integrated Automated Identification Fingerprint System (IAFIS) environment, when civil submissions are processed, IAFIS criminal master file is updated with biographic details such as Name or Date of Birth if they are different on the civil submission. Only these biographic details pertaining to civil data are disseminated to the end-users. As an enhancement to the IAFIS, NGI will offer the Rap Back service to the contributors. The Rap Back service was developed in response to a need by IAFIS users for notification of criminal, and in limited cases, civil activity of individuals that occurs after the initial processing and retention of criminal or civil fingerprint transactions by the FBI CJIS Division. Additionally, the concept is being evaluated to allow the Rap Back Service to IAFIS users for notification of civil activity in limited cases. In November 2009, the National Crime Prevention and Privacy Compact Council (Compact Council) was requested to provide guidance on the type of civil information the end-users should receive in response to civil submissions. The Compact Council responded: "Provide all biographical information (including biographical information received from civil submissions) in all responses. Do not provide civil event information in response to civil submissions or as part of a Rap Back response. Possible exception for national security purposes which needs to be further researched." Guidance from the Advisory Policy Board (APB) was sought on this matter in December 2009 and the APB concurred with the Compact Council's decision.

**Current NGI Efforts:** The FBI CJIS Division NGI Program Office is working on a Privacy Impact Assessment (PIA) for civil data incorporating the Compact Council decision mentioned above. The PIA is in its conceptual phase and has not been approved. Moreover, the phrase "national security purpose," has not been defined yet.

### **Points to consider:**

- NGI Increment 1 which will be delivered in 2011 will include the Advanced Fingerprint Identification Technology, and its capability for enhanced matching algorithms. The consolidated criminal and civil repository will not be delivered until NGI Increment 4.
- CJIS will return biographic information associated with civil submissions to the Department of Homeland Security (DHS) Automated Biometric Identification System (IDENT) if a DHS transaction positively identifies to an IAFIS record.

should be addressed at CJIS. IIU will follow up with Biometric Services Section (BSS) Chief for guidance on this issue.

- Currently, no response letter is returned to the agency until connectivity is established. Transition will be a different issue and will need to be addressed in a somewhat different manner.
- A list of questions/concerns was distributed to the group for discussion and consideration. (attached as Addendum A)
- Per [redacted] - On civil transactions, CJIS will always process fingerprints before the Criminal History Record Information (CHRI) is released.
  - The notion about DHS storing no-match responses from IAFIS in IDENT and the possible impacts to CJIS User Fee was discussed.
  - Transition could also impact the volume of criminal inquiries.
  - [redacted] inquired as to what percentage of prints do not come to IAFIS from Customs and Border Patrol (CBP)-
  - It was reported that the ratio today is about 40/60, but this will probably change in the future with Record Linking.
- Discussion continued with regard to DHS storing no-matches in their system and the possible gaps that could create if it is done prior to NGI. CJIS and the United States Visitor and Immigrant Status Indicator Technology (US-VISIT) are scheduled to begin Record Linking in 2013, after NGI. Record Linking will consist of automated notifications to IDENT and IAFIS from the respective agency on updates to common records that are "linked". Per [redacted] with NGI all 10-print Identification Searches will be sent to IDENT.
  - Several gaps are involved with Record Linking. The Next Generation Identification (NGI) RapBack is a viable solution. However, due to the APB already approving Record Linking, IIU needs to incorporate both while achieving the best results for all involved. CJIS anticipates that a combination of these two, new business practices (storage of no-match responses and record linking) may significantly reduce User Fee transactions from the Department of State, USCIS, CBP, and TSA.
  - All positive identifications/matches may not come to IAFIS from IDENT. If they hit the IDENT Watch List, they will not be sent to IAFIS. DHS can't link on W/W or KSTs unless they have to have an independent DHS encounter on the subject. Wants and Warrants will always be shared with IDENT.
- The group discussed possible impacts to the areas outlined on the general questions handout.
  - DHS capacity issues with adding extra volume – Can IDENT handle the additional volume?
    - TSA reports that there are approximately 8-12 populations in their Transportation Threat and Assessment Credentialing (TTAC).
    - TSA's TWIC has an estimated volume 1.2 million
    - Per [redacted] there was a T1 line that was installed just to accommodate TWIC transactions to IAFIS.
    - Currently, USCIS has four (4) T3 connecting lines (significant volumes).

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- What configuration changes will be required?
- Are there any post configuration changes necessary?
- Will testing occur prior to transition?

#### **Fees –**

- If DHS channels through IDENT, who will be responsible for the user fee billing?
- Will we [CJIS] continue to use the same ORIs and bill as we currently do?
- What if any are the costs involved for each agency?

#### **NGI –**

- CJIS plans to charge a fee for RapBack through NGI. It is unclear how this will be passed to IDENT WrapBack users.

#### **Risks –**

- What are the risks involved in transition?
- Is the IDENT pipe capable of handling the additional volumes?
- What will become of the CJIS WAN connection currently in use by TSA?
  - Network connections to the CJIS WAN will need to remain for other uses.
- There is an overarching concern with retention and the legal implications. With a change in the routing of CMF search requests, biometric retention by US-VISIT and CJIS may change based on the processing characteristics of the user organization.
  - The Interoperability MOU should apply as well as user agreements in place through IAFIS business processes.

External System/Authorized Contributors NPPR

Reason for Change Request - There is no definition within IAFIS of an External System. Instead, transactions routed to IAFIS from DHS/IDENT are handled the same as transactions submitted directly to IAFIS. Searches from IAFIS to DHS/IDENT are authorized based on Originating Agency Identifier, Type of Transaction, and Retention.

NGI identifies Direct and Indirect Users. As defined, Indirect Users have two sub-categories, Authorized Contributors and External Systems. Authorized Contributors are eligible to receive all NGI services. External Systems are limited to fingerprint searches, record linking and notifications. External Systems are precluded from most biographic record maintenance, Rap Back, and multi-modal services.

Currently, DHS/IDENT submits fingerprint search requests to IAFIS for multiple DHS customers via (Single Search) IAFIS Shared Services. With the transition of IAFIS Shared Services to NGI, planned in Increment 4, there is a risk of lost functionality for users accessing IAFIS/NGI through DHS/IDENT. To ensure that functionality delivered as IAFIS Shared Services is available with NGI, NGI is requested to grant to External Systems, at a minimum, the privileges/roles associated with Authorized Contributors and update all applicable documentation.

### Interoperability

The Interoperability project goal is to establish interoperability between the FBI's IAFIS and other biometric systems, with current primary emphasis on the Department of Homeland Security (DHS) Automated Biometric Identification System (IDENT).

In order to achieve this goal, interoperability includes four primary objectives.

- The first objective will allow IAFIS users to access IDENT through IAFIS with a single biometric search request and receive a consolidated response. Likewise, IDENT users will be able to access IAFIS through IDENT. Future expansion will expand interoperability to additional biometric systems from other agencies and other nations.
- The second interoperability objective is to provide links between IAFIS and IDENT for subjects with records in both systems. When identifications have been established for subjects maintained in both systems, each system will establish references to the subjects' records in the interoperable system. Direct retrieval between the systems will be developed to supply the supporting biographic information, when this information is needed to support decision making by the contributing agencies.
- The third objective develops a new biometric risk assessment service for searches of a Global Critical Data Set (GCDS). The GCDS contain fingerprints of the highest risk subjects maintained within IAFIS and other external systems. Quick searches (10 seconds) will return a hit or no hit response, with contact information for the follow-up to retrieve more detailed subject information.
- The fourth objective enhances IAFIS to support interoperability by expanding the availability, accuracy, and performance of existing IAFIS services. This effort is tightly linked with Next Generation Identification (NGI) to address volumes and response times, flat fingerprint processing, access to civil file information, Rap Back, enhanced photo accessibility, and availability.

## Interoperability User Services

- Provide expanded IDENT biometrics search capability such that a single query searches one or more repositories. (IDENT Biometric Search Capability)
  - Define standards, protocols and conventions for searching IDENT.
  - Provide capability for the IAFIS to initiate a search of IDENT in support of identification and investigative searches.
  - Provide the capability for the IAFIS to initiate photo retrievals from IDENT.
  - Provide capability for IDENT to initiate an identification search against the IAFIS Repository(ies).
  - Provide capability for IDENT to initiate a verification search against the IAFIS Repository(ies).
  - Provide capability for IDENT to initiate an investigative search of the IAFIS Repository(ies).
  - Provide capability for IDENT to retrieve photo(s) and scars, marks and tattoos (SMTs) from the IAFIS Repository(ies).
  - Provide LESC notification of the IAFIS activity on IVF records.
  - Provide comprehensive activity reporting on expanded information sharing.
    - This enhancement impacts six core IAFIS user services: Identification, Verification, Information, Investigation, Notification, and Data Management.
- Provide the capability for the IAFIS to link an identity(ies) with a record(s) contained within IDENT. (IDENT/IAFIS Repository Record Link)
  - Provide functionality for the IAFIS to link jointly held records with IDENT.
  - Support the exchange of information with IDENT based on linked records.
  - Provide notification to IDENT of the IAFIS activity on linked records.
  - Receive notification of IDENT encounter of a linked record (e.g., an IAFIS Wanted Person, IVF).
  - Provide Want owners notifications of IDENT encounter.
  - Provide LESC notification of encounters of IVF records and other high-priority subjects
  - Provide Rap Back services.



Unanswered comments from DHS on the FRD

We have verification requirements that fall into the "immediate priority" category... will verifications for interoperability components take 15 minutes?

Does EBTS specify formats for IAQ/IAR messages?

Need to understand the difference between IXM and EBTS for IDENT transactions.

Didn't see any notification requests being sent back to external repositories on linked records. Also, will there be ability to receive notification on activities other than verification and identification (e.g. investigation, information) ?

Transaction volumes should reference the latest table, submitted with 10-print requirements on 12/20/2006

Response time is defined in the UI CONOPS as end to end processing time. Query time is the time to generate results with each of the systems.

See 10-print Pilot business requirements for necessary functionality.—refer back

RapBack functionality requirements are in the process of being vetted for the Q3 release of IDENT. It is envisioned that RapBack capability will include ability to support notification against a specific data store (e.g. derogatory information (DI))

## **IAFIS Rap Back Pilot**

### **Background**

The NGI Program Office recognizes the importance of information sharing initiatives and the timeliness of sharing that information with its, local, state, tribal, and federal partners, within the current legal and privacy framework. As a result of a recent National Security Staff Information Sharing and Access Interagency Policy Committee Meeting with our federal partners to include Office of Personnel Management, US Citizenship and Immigration Services, Transportation Security Administration, Customs and Border Protection, it was determined that early delivery of the FBI Rap Back functionality could meet the needs of these respective agencies. In coordination with the Biometric Services Section (BSS), we feel that our current business line could offer a beneficial service to our customers, as well as, provide NGI with lessons learned, as we move toward Increment 4 implementation.

Rap Back functionality is not being added to IAFIS. The concept is not fully flushed out and is planned to be implemented in NGI. Based on the business needs, CJIS will be implementing the *service* using existing IAFIS capabilities. The majority of the service will be performed manually by BSS.

### **Process**

The Identities to be enrolled in the Rap Back Pilot will be enrolled in the criminal repository and marked with an SPF of K. The SPF of K on the record will cause subsequent activity to either route the submission to the DOCSPEC HMI or send a notification to the DOCSPEC printer (based on TOT). The BSS employees assigned to the Rap Back Pilot will use a standalone database to maintain Rap Back enrollment and track notifications. If the subsequent activity falls under the triggering events for a Rap Back notification, the BSS employee will be responsible for notifying the appropriate agency.

### **IAFIS – System Changes**

1. Submissions need to be identified
2. Submissions need to be enrolled in the criminal repository for subsequent searching
3. Submissions need marked for special processing (SPF=K) in order to route to DOCSPEC HMI

New steps within the AQC business rules will be added to accomplish these steps (see redlines to Design Note #25). No other IAFIS system changes are needed.

### **Initial Bulk Load**

1. EFCON will need to build EBTS messages to inject into IAFIS
2. TOT = MAP so that agencies will not be billed for initial load

3. AQC will set TSR to H to suppress/redirect notification since these are not active/current prints
4. AQC will set RET to Y but not set SPF to K. BSS was concerned about the workload on DOCSPEC
5. EFCON will need to run a daily report during the initial load to identify the FNU's created for these submissions as well as data identified by BSS for populate the standalone database.
6. III will then need to set the SPF of K on these records

#### **Day 1 Forward**

1. Agencies will submit fingerprints using normal process using civil TOTs
2. AQC will identify the submission for Rap Back by CRI or a combination of CRI and RFP (depending on agency)
3. AQC will set RET to Y, SPF to K and the appropriate TSR and UFB code
4. The SPF of K will cause the submission to be routed to the DOCSPEC HMI at file maintenance.
5. The DOCSPEC Service Providers will capture appropriate data for their database and release the submission

#### **Subsequent Activity**

1. The SPF of K will already cause subsequent activity on the record to be routed to DOCSPEC HMI or a notification sent to the DOCSPEC printer.
2. Rap Back triggering events will be identified and provided to BSS
3. If the subsequent activity is a Rap Back triggering event, the DOCSPEC Service Provider will perform the steps necessary to notify the appropriate agency.

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### C. Business Requirements

- Internal CJIS discussion on 9/6 concerning DHS responses to IAFIS queries, including both the IDR and the IAR, as well as supporting notifications. Ongoing effort to plan preferred process flow from a CJIS perspective.
- External teleconference held on 9/10 concerning DHS responses to IAFIS queries. CJIS has major concerns with: the DHS inability to support IAFIS response times at deployment, continued dependence on the iDSM site selection document, no ramp-up schedule, unclear definition of pilot and full functionality in out years, no inclusion of IAFIS civil end users, and reliance on a paired IAR and IDR. Action for CJIS to produce alternative flow. Is underway. Internal discussions set for 10/05.
- Working Group - Impact Review Team (WG-IRT) with DHS held 9/12. Two agenda items were CJIS CR 113 (TVS rebaseline) and DHS CR 123 (enumeration). DHS CR 123 approved with concerns addressed from 09/06/2007 teleconference. TVS unable to be baselined per DHS IT concern that ramp up must be included. DHS requested time for their IT to review. DHS took action to rework. CJIS concern that effort is the next step in a process, but indicates movement away from previously agreed points. Internal CJIS action to determine appropriate path forward. Determination resulting from 10/02 ESC meeting is that heavy modifications to the TVS are needed in order to support the current position.
- Discussion with internal latent POC planned for 9/13, seeking specifics on current latent extract process. Reviewed information presented US-VISIT representative in I/O IPT on 9/14 regarding Latent Functionality. Further internal discussion possible on this issue. Discussions held 09/25 at SAT II with members of BRT, NGI, and CITU. Several options were presented. Latent Functionality Concept Paper and brief paper on incremental approach will be drafted. Latent Functionality Concept Paper and Incremental White Paper are on-going.
- Joint BRT meeting held 8/1 to discuss CJIS 96, a proposed change request concerning Rap Back. CJIS prepared a narrative on options for implementation. Awaiting DHS response. Follow-up scheduled for 8/8 cancelled due to schedule conflict. DHS indicates 8/8 that a response on the CJIS narrative will be available by the end of the week. Narrative response not available as of 8/15. Narrative response not available as of 8/22. Narrative response not available as of 9/12. Narrative response not available as of 9/19. On-going item. CJIS BRT reached out to DHS US-VISIT for update. No response as of 10/03.
- On-going BRT action to reconsider business requirement mapping to IOC/FOC in light of Hagerstown off-site agreements on high-level functionality. Internal comparison completed. Open action for the joint BRT to reconcile. Date for joint meeting has been deferred due to availability of key BRT members.
- Action for BRT to begin work on a Stand-Alone Business Requirements Document.

### D. Biometric Interoperability Risk Management

- iDSM O&M Risks
  - 4 risks are open
    - Medium - 3
    - Low - 1
  - Open Risk O&M 3 was elevated to an Issue and moved to the Issue Tracking Log
  - Copy of risks provided upon request
- Shared Data
  - 21 risks are open
    - High - 4
    - Medium - 12
    - Low - 5
  - There is 1 proposed risk.
  - Copy of risks provided upon request
- Shared Services
  - 12 risks are open
    - High - 5
    - Medium - 5
    - Low - 2
  - Copy of risks provided upon request
- Issue Tracking Log:
  - There are insufficient staffing levels for the shared services project management and development.
  - After the NGI contract is awarded an ECP must be generated that will directly incorporate the Shared Data Component functionality into the NGI system design.
  - The iDSM changes to the code baseline do not always follow the CM process.

#### Enhanced IAFIS Repository (EIR) Component

The current IAFIS civil and criminal repositories are separate and distinct databases. Re-organization of the criminal and civil repositories will support our customers' needs to identify when criminal activity occurs on the records of persons holding positions of trust. This component will also offer a new service known as *Rap Back* to authorized users who desire immediate notification when a person of interest may pose a threat to national security or the well being of others.

#### Interstate Photo System (IPS) Enhancement Component

The capability to routinely retrieve mug shots will allow police officers, without specialized identification training, to recognize criminals. These photos will allow officers to quickly obtain a visual comparison within the IAFIS of an individual with an existing criminal history. The enhanced IPS will also allow the submission of photographs absent of a current arrest as well as bulk submissions of photos maintained at the state/federal level. Today, the IAFIS will only allow ten photos per record. Users of the IAFIS will also have an expanded capability to submit and search for photos other than facial (e.g., scars, marks, tattoos).

#### National Palm Print System (NPPS) Component

This NGI component will allow IAFIS to accept, store, and search palm print submissions from the FBI Laboratory Division, as well as local, state, tribal, and federal law enforcement and criminal justice agencies nationwide. Currently, IAFIS does not support this functionality.

#### Quality Check Automation (QCA) Component

Current IAFIS functionality requires human intervention to perform the Quality Check (QC) function, which delays the processing as the submissions must be queued while waiting to be processed. Automation of QC will enhance the FBI/CJIS Division's ability to provide timely and accurate information by streamlining processes, improving consistency of actions, and reducing the IAFIS response times.

## **2.0 NGI STAFFING REQUIREMENTS**

The NGI Program Office Staffing Plan consists of teams to include: Front Office, Policy and Planning, Analysis and Liaison, Risk Management and Compliance, Program Control, and System Engineering. The proposed structure establishes an NGI staff of 41 people plus Contractor Support.

### **2.1 NGI Program Front Office**

#### **Staffing Total – 9 plus Contractor Support**

The NGI Program Front Office will be responsible for Program Level oversight for all: NGI and related analysis, liaison, policy and planning development, corresponding implementation, system

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- What is the peak volume per day / month?
  - Are the checks retained as civils in IAFIS?
  - Is the BRAG aware of Rap Back services that could be helpful with their renewal checks?
  - Who is the Director of the BRAG?
  - Do they have contact with other ICE POCs besides the LESC (for biographic IAQs)?
  - What type of response from IDENT would BRAG like to receive?
- Next IIUDWG – 7/08 at 1 pm
  - BRAG POC(s) will attend to address questions / concerns
  - USV to provide questions from DHS and DOS for BRAG application by 7/02

Note

- This meeting was rescheduled from Thursday, 6/24, due to a scheduling conflict for CJIS.
- Due to scheduling conflicts at USVISIT, the 6/10 meeting was canceled.



## **Questions Concerning NGI Document Package in chronological order by document**

**Question 3:** According to the summary, “[t]he program pursued an extensive collaboration with civil and law enforcement stakeholders and users to define and validate functional requirements prior to contract award.” What were those requirements? Were they codified in the contract? If different, what were the “performance measures” agreed upon with user organizations “that are being used to measure program value for objectives”?

**Answer:** The FBI canvassed local, state, Federal, and authorized noncriminal justice agencies to gain input and identify requirements relating to the NGI capabilities.

The stakeholder requests which correspond with the user, functional, and system level requirements associated with the NGI capabilities have been endorsed by the National Crime Prevention and Privacy Compact and the CJIS Division’s Advisory Policy Board. The National Crime Prevention and Privacy Compact develops the rules and procedures for the national exchange of criminal records for noncriminal justice purposes. The advisory process consists of a network of working groups, subcommittees, and an Advisory Policy Board, and includes representatives from local, state, and federal criminal justice agencies. The advisory process is part of a shared management concept by which this body reviews policy, technical, and operational issues related to CJIS Division programs. The Federal Working Group, as part of this process, consists of representatives from various Federal Agencies such as the U.S. Marshals, U.S. Immigration and Customs Enforcement, U.S. Secret Service, and the Bureau of Alcohol, Tobacco, Firearms and Explosives, etc. Therefore, the FBI has gained support for the NGI Program from all of its stakeholders, including local, state, and Federal Agencies. These requirements were incorporated into the contract utilizing the System Requirements Document. The performance measures within the Exhibit 300 are based on the System Requirements Document.

**Question 4:** Why were Biometric Interoperability and NGI merged under a single contract?

**Answer:** The Biometric Interoperability Program evolved as the DOJ/FBI, DOS, and DHS worked to agree upon the best information sharing solution for meeting mission and operational needs of all parties. Once these parties agreed upon a technical solution to achieve biometric interoperability between the FBI’s IAFIS and the DHS’ IDENT system, it was determined by the FBI that leveraging the NGI development contract would satisfy the majority of the requirements for this large-scale program. The Biometric Interoperability Program requirements were merged with the NGI requirements prior to Request for Proposal release on the NGI development contract. Additionally, the NGI effort already included key foundational concepts consistent with the Biometric Interoperability Program, including search of an external repository; rapid search of high priority subjects; improved response times; improved accuracy and processing for Identification Flat fingerprints; and ability to provide a “rap back” service similar to the record linking concept within the Biometric Interoperability Program.

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Although it is not yet determined how this should be achieved, potentially, subjects of interest could be enrolled in the proposed Rapback function at CJIS and a notification sent to DHS or DOS of subsequent activity. With this concept, IAFIS would need to support the storage and search of a repository roughly equal to the size of IDENT. Complications arise with determining this gallery size, recognizing that of the approximately 114 million subjects enrolled in IDENT by fiscal year 2009, only 35% will be comprised of 10-prints. Planning would need to account for expected IDENT growth and the re-capture rate of subjects with the planned transition from 2-10 prints.

Conversely, another alternative for notification could be CJIS providing DHS with fingerprint images for all IAFIS subjects with new activity. DHS would search IDENT to determine biometric matches to subjects of interest and request associated criminal history record information through either a National Crime Information Center (NCIC) query or through a fingerprint submission to CJIS. It is possible that this alternative notification method could be used to narrow the current functionality gap until NGI delivers Rapback.

### **Photo Functionality**

The third NGI initiative that may be leveraged by interoperability is the Interstate Photo System (IPS). DHS and DOS require photos at the time of visa issuance and entry into the country. Access to this large gallery of photos by state and local law enforcement and non-criminal justice agencies would be a useful tool when determining identity. Current interoperability plans are to return DHS and DOS photos within the response following a biometric match. It would be equally useful for DHS and DOS to receive IAFIS photos within the response instead of having to do a follow-up retrieval request. Additionally, the ability to directly request a photo from either IAFIS or IDENT based on an identifying number would be a useful improvement in determining identity, exposing fraud, or resolving administrative errors.

- CJIS mentioned ITT plan to contact DOS OPSS regarding two things: 1) If they want the FIN and EID on no-match enrollments; and, 2) Can DOS OPSS utilize the SSCN. [ ] to follow-up with [ ]
- FDLE
  - USVISIT Update at ESC of internal target date of 9/15 for recommendation of approval.
- BRAG
  - USVISIT Update at ESC of internal target date of 8/15 for recommendation of approval.
  - [ ]
    - There is no specific language regarding retention but there is a "sole purpose" clause. **ACTION ITEM: CHASITY TO FORWARD TO ALICIA.**
    - How does retention apply when determining authorized use?
  - [ ]
    - Without retention in IDENT, we can't offer WRAP Back.
  - [ ]
    - Our management has requested a comprehensive recommendation package on each new user application.
- SIU
  - IIUDWG has received SIU application. This application may be discussed at the 8/12 IIUDWG meeting.

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Concern (RISC) that will provide a ten second fingerprint search of known or suspected terrorists, wanted persons, and other persons of special interest.

#### **Disposition Reporting Improvements (DRI) Component**

This capability will provide additional methods for submitting a disposition to the NGI. Disposition information is extremely important to the user community when making fitness determinations for licensing, employment, and volunteer positions. The disposition process currently relies on the submission of hard copy forms and Machine Readable Data (MRD) format, which utilizes out-of-date technology. Automated methods will expedite the process and improve accuracy.

#### **Enhanced IAFIS Repository (EIR) Component**

Redesign of the IAFIS criminal and civil history repository will improve the overall effectiveness of NGI, develop new and streamline existing internal user processes, and provide new search and response services to the FBI's customers. Additionally, modifications will be made to incorporate multimodal biometric identification capabilities for future needs. Enhancements will also provide expanded capabilities to link subjects to records held by other agencies such as DHS.

The EIR will offer a new Rap Back service allowing authorized agencies to receive notification of criminal, civil or external system activity on individuals holding positions of trust. Iris is being introduced as a new biometric modality that will be supported by the EIR. NGI users will have the ability to enroll Iris images and features for a subject being enrolled into the system, search against the Iris repositories (Special Populations, Criminal, Civil, and RISC) using the submitted subject's data, and to retrieve Iris images and features for an identified subject.

#### **Interstate Photo System (IPS) Enhancement Component**

Currently, the IAFIS can accept photographs (mug shots) with criminal ten-print submissions. The NGI System will allow customers to add photographs to previously submitted arrest data (possibly from existing photo databases) and allow for easier retrieval of photos. Enhancements will include the ability to accept and search for photographs of scars, marks, and tattoos (SMT). NGI also supports the automated searching of photographs for investigation purposes.

#### **National Palm Print System (NPPS) Component**

The NGI System will include the capability to accept, store, and search palmprint submissions from local, state, and federal law enforcement and criminal justice agencies nationwide. The NPPS will provide a centralized repository for palmprint data that can be accessed nationwide, providing customers with an additional tool to solve crimes.

#### **Quality Check Automation (QCA) Component**

Current IAFIS functionality requires human intervention to perform the Quality Check (QC) function, which delays the processing, as the submissions must be queued while waiting to be processed. Automation of the QC will enhance the CJIS Division's ability to provide timely and accurate information by streamlining processes, improving consistency of actions, and reducing transaction response times.

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## FROM EIR PIA

The FBI will also provide subsequent criminal information in the form of a "Rap Back like" service to authorized Federal agencies through a record linking process. The FBI is currently discussing the record linking process with the Department of Homeland Security (DHS). A record link will be established for individuals based on biometric comparisons between the NGI and DHS IDENT (Automated Biometric Identification System-ABIS) System. Once the link has been established, a notification will be provided to the FBI and/or DHS upon subsequent activity. The record link enables retrieval of biographic information using record identifiers from each system without having to perform additional biometric comparisons. Authorized NGI users may subsequently request additional information from the external repository having records linked to a particular subject. Authorized criminal justice users of the external repository will be able to retrieve full criminal history record information from the III based on an established record link. Authorized noncriminal justice users of the external repository will receive notification of activity, but to obtain the corresponding criminal history record, the authorized noncriminal justice user of the external repository must submit a fingerprint-based request to the FBI in compliance with the National Crime Prevention and Privacy Compact Act (42 U.S.C. 14616). Personally Identifiable Information (PII) retrieved from an external system is based on the processes and accuracy standards of that external system. All data provided by the CJIS Division shall be protected as required by the Privacy Act and as guided by the CJIS Advisory (APB) and CJIS Security Policy.

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The goal of this objective is to provide the IDENT/IAFIS Repository Record Link capabilities. This objective provides new functionality to support the bi-directional exchange and linking of information with IDENT. In addition, this objective expands existing notification functionality to support information sharing across systems. Specific sub-objectives are:

- Provide functionality for the IAFIS to link jointly held records with IDENT.
- Support the exchange of information with IDENT based on linked records.
- Provide notification to IDENT of the IAFIS activity on linked records.
- Receive notification of IDENT encounter of a linked record (e.g., an IAFIS Wanted Person, IVF).
- Provide Want owners notifications of IDENT encounter.
- Provide LESC notification of encounters of IVF records and other high-priority subjects
- Provide Rap Back services.

This enhancement impacts five core IAFIS user services: Identification, Information, Investigation, Notification and Data Management.

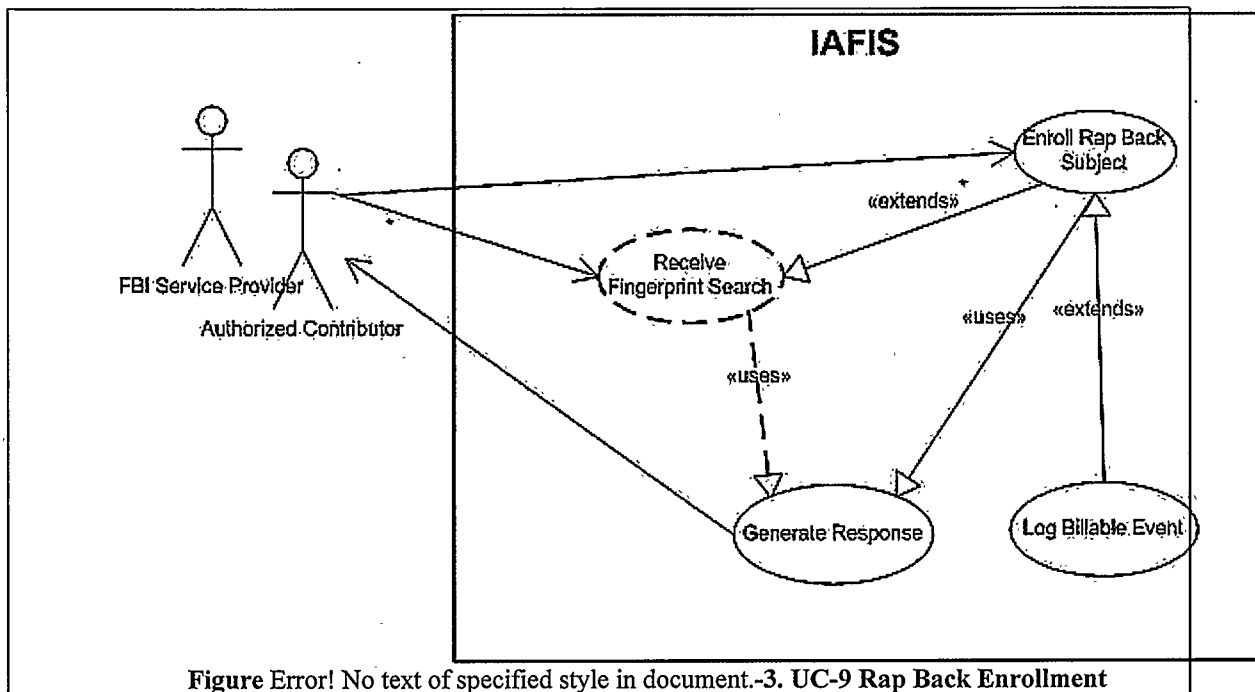
The IDENT/IAFIS repository record link objective provides new functionality to support the bi-directional exchange and linking of information with IDENT. In addition, this objective expands existing notification functionality to support information sharing across systems. Four use cases support the IDENT/IAFIS Repository Record Link capability and are depicted in Table 3.

**Table Error! No text of specified style in document.-1 IDENT/IAFIS Repository Record Link Use Cases**

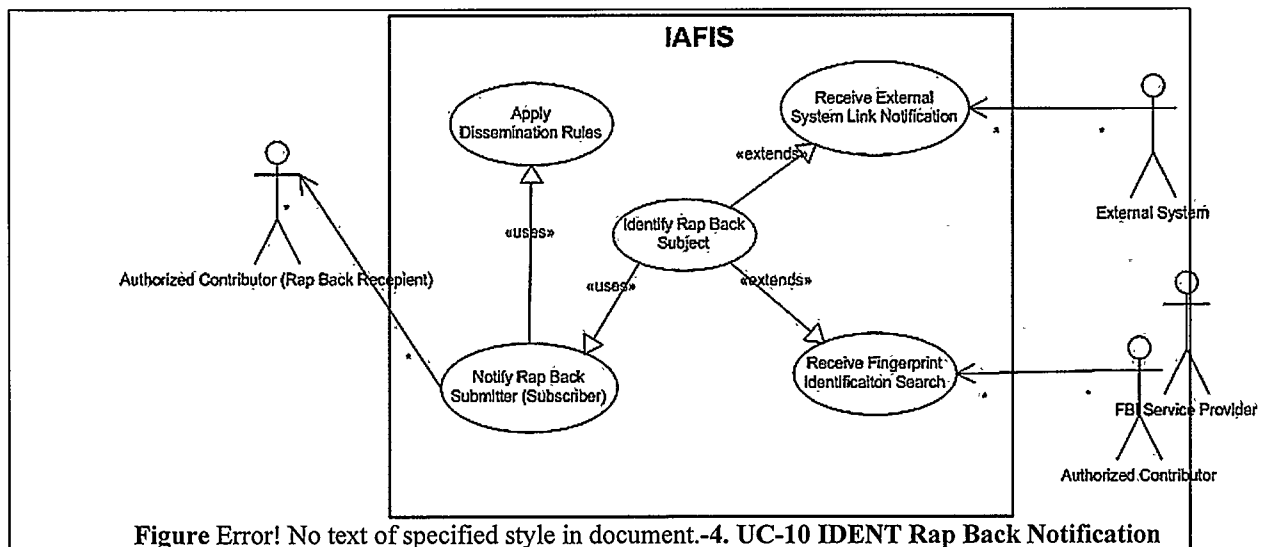
Use Case ID	Use Case
UC-7	IAFIS Link Activity Notification
UC-8	IDENT Link Activity Notification
UC-9	Rap Back Enrollment
UC-10	Rap Back Notification

An overview to the four use cases is provided below. The full description of these use cases is provided in Appendix D. A legend for the use case diagrams is provided at the beginning of Appendix D. In addition, the definitions of the use case actors are provided in the Appendix B Glossary.





The Rap Back Enrollment use case describes the functionality for an Authorized Contributor or FBI Service Provider-direct enrollment. The Authorized Contributor or FBI Service Provider will have the ability to indicate what types of events should result in a Rap Back Notification. The appropriate user fees will be charged as part of the Rap Back enrollment.



The IAFIS Rap Back Notification Service provides event notification to the Authorized Contributor (Rap

Back Recipient) based on a pre-set event criteria (triggers). Authorized Contributors (Rap Back Recipient) may receive a Rap Back Notification as a result of their own submissions, other Authorized Contributor or FBI Service Provider submissions, and IDENT activities.

This section is organized around the five core IAFIS user services impacted by the IDENT/IAFIS Repository Record Link Service. Within each user service section, the specific user requirements that correspond to the IAFIS user service are provided, followed by the functional decomposition of those user requirements.

### **1.1.1 Identification**

The Identification User Service includes new and modified legacy functionality from the IDENT/IAFIS Biometric Search and Rap Back Enrollment use cases. The user requirements for the IDENT/IAFIS Repository Record Link capabilities under the Identification User Service are:

BR399 [UR7.16] IAFIS shall support the linking of IAFIS and IDENT records resulting from a positive identification initiated because of an IAFIS enrollment. NGISUR18

BR399 [UR7.17] IAFIS shall support the linking of IAFIS and IDENT records resulting from a positive identification initiated because of IAFIS fingerprint quality updates. NGISUR18

Derived [UR7.18] IAFIS shall enroll a Rap Back subscription as part of a Ten-Print Identification Search. NGISUR18

#### **1.1.1.1 Functional Requirements**

This section contains the functional requirements specific to the IDENT/IAFIS Repository Record Link capabilities that pertain to the Identification User Service. The following functional requirements relate to the IAFIS cascading External Ten-Print Identification searches as a result of the new IAFIS enrollments or fingerprint quality updates from the IAFIS Ten-Print Identification Searches. The External Ten-Print Fingerprint Identification Search will not be sent multiple times to IDENT to support a single IAFIS submission. If an Authorized Contributor has requested a search of IDENT, the search will be launched simultaneously with the IAFIS search.

BR336, BR441[FR7.147] IAFIS shall generate an External Ten-Print Fingerprint Identification Search request to IDENT when a retained Ten-Print Fingerprint Identification Search results in a non-identification decision (e.g., new IAFIS enrollment).SFR100, SFR1865, SFR2027

Derived [FR7.148] IAFIS shall generate an External Ten-Print Fingerprint

Identification Search request to IDENT when fingerprint image quality exceeds the quality improvement threshold as part of a Ten-Print Fingerprint Identification Search.SFR102, SFR2019

Derived [FR7.477] IAFIS shall send an External Ten-Print Fingerprint Identification Search request to IDENT when a retained Ten-Print Fingerprint Identification Search does not designate IDENT as a repository to be searched.SFR100, SFR1865, SFR2027

The requirements for sending and receiving External Ten-Print Fingerprint Identification Search requests are addressed under the IDENT Biometric Repository functional requirements supporting Identification Services (see Section 3.1.1). Section 3.1.1 also covers linking the IAFIS records to IDENT records.

Derived [FR7.478] IAFIS shall accept an External Ten-Print Fingerprint Identification Search response from IDENT for records identifying a candidate which qualifies for creation of a record link. SFR108, SFR111, SFR2022

Derived [FR7.453] IAFIS shall support a fingerprint image quality improvement threshold.SFR1520

Rap Back Enrollment under Identification Services is considered an indirect Rap Back Enrollment, since the primary purpose of the request is an identification search. The following functional requirements are related to Rap Back enrollment capability:

BR41, BR179, BR180, BR181, BR189, BR304, CJIS96 [FR7.149] IAFIS shall accept a Rap Back Enrollment from an Authorized Contributor as part of a Ten-Print Fingerprint Identification Search in accordance with the latest EBTS version.SFR28

Derived [FR7.150] IAFIS shall allow a Rap Back Enrollment from an authorized FBI Service Provider as part of a Ten-Print Fingerprint Identification Search.SFR29

BR244, BR245, BR246 [FR7.151] IAFIS shall accept, as part of a Ten-Print Fingerprint Identification Search, a designation of which event type(s) (e.g., civil, criminal, external system, etc.) will trigger Rap Back Notifications for the associated Identity.SFR30

BR130, BR131 [FR7.152] IAFIS shall accept, as part of a Ten-Print Fingerprint Identification Search, a Rap Back subscription expiration date for the associated

Identity.SFR31

Derived [FR7.153] IAFIS shall assign a default Rap Back subscription expiration date when an expiration date is not specified as part of the Ten-Print Fingerprint Identification Search.SFR86

Derived [FR7.154] IAFIS shall assign the default Rap Back subscription expiration date when the expiration date specified, as part of the Ten-Print Fingerprint Identification Search, exceeds the maximum allowable Rap Back subscription period.SFR87

Derived [FR7.155] IAFIS shall accept, as part of a Ten-Print Fingerprint Identification Search, a designation of the Authorized Contributor(s) who should receive Rap Back Notifications for the associated Identity.SFR32

Derived [FR7.156] IAFIS shall enroll the Identity into Rap Back Service as part of a retained Ten-Print Fingerprint Identification Search.SFR85

Derived [FR7.157] IAFIS shall reject Rap Back enrollment when the associated Ten-Print Fingerprint Identification Search is rejected.SFR89

Derived [FR7.158] IAFIS shall advise the Authorized Contributor of the Rap Back Enrollment status as part of a Ten-Print Fingerprint Identification Search response.SFR157, SFR158

## **1.1.2 Information**

The user requirement for the IDENT/IAFIS Repository Record Link capabilities under the Information User Service is:

Derived [UR7.19] IAFIS shall include IDENT link identifiers as part of Identity History responses.NGISUR45

### **1.1.2.1 Functional Requirements**

This section contains the functional requirement specific to the IDENT/IAFIS Repository Record Link capabilities that pertain to the Information User Service. This requirement is:

BR204, BR440, BR460 [FR7.159] IAFIS shall provide IDENT link identifier(s), when available, as part of Identity History responses. SFR504

## **1.1.3 Investigation**

The user requirement for the IDENT/IAFIS Repository Record Link capabilities under the Investigation

User Service is:

Derived [UR7.20] IAFIS shall include IDENT link identifiers as part of Investigation Search responses. NGISUR61

#### **1.1.3.1 Functional Requirements**

This section contains the functional requirement specific to the IDENT/IAFIS Repository Record Link capabilities that pertain to the Investigation User Service:

BR460 [FR7.160] IAFIS shall provide IDENT link identifier(s), when available, as part of Investigation Search responses. SFR545, SFR589, SFR615, SFR678, SFR727, SFR748

#### **1.1.4 Notification**

The Notification User Service includes new and modified legacy functionality from the IAFIS Link Activity Notification and IDENT Link Activity Notification use cases. The user requirements for the IDENT/IAFIS Repository Record Link capabilities under the Notification User Service are:

Derived [UR7.21] IAFIS shall provide IDENT with notifications of activity on a linked record (this is notification of activity only, not the full criminal history record information). NGISUR92

Derived [UR7.22] IAFIS shall provide Authorized Contributor(s) with notifications of IDENT activity on a linked record. NGISUR90

Derived [UR7.23] IAFIS shall support the Rap Back Notification Services. NGISUR95

##### **1.1.4.1 Functional Requirements**

This section contains the functional requirement specific to the IDENT/IAFIS Repository Record Link capabilities that pertain to the Notification User Service. The following functional requirements relate to providing an IDENT notification of IAFIS activity on linked record(s):

BR91 [FR7.161] IAFIS shall send a Linked Record Activity Notification to IDENT when a Fingerprint Verification request matches a record containing a link to IDENT. SFR966

BR75, BR111, BR123, BR124, BR126, BR127 [FR7.162] IAFIS shall send a Linked Record Activity Notification to IDENT when a Ten-Print Fingerprint Identification search results in a positive identification to a record containing a link to IDENT. SFR967

BR122, BR124, BR126, BR127, BR287, BR420 [FR7.163] IAFIS shall send a Linked Record Activity Notification to IDENT when an IAFIS Identity Maintenance activity occurs on a record containing a link to IDENT.SFR968

Derived [FR7.164] IAFIS shall provide the reference number and associated IDENT link identifier as part of the Linked Record Activity Notification.  
SFR969

BR189, BR291, BR304 [FR7.165] IAFIS shall send Linked Record Activity Notification in accordance with the latest EBTS version.SFR970

The following functional requirements are related to providing IAFIS Authorized Contributors with notifications based on IDENT activity:

BR41, BR179, BR180, BR181, BR189, BR304 FR7.166] IAFIS shall accept External System Linked Record Activity Notification from IDENT in accordance with the latest EBTS version.SFR1405

Derived [FR7.167] IAFIS shall accept a reference number and associated IDENT link identifier as part of the External System Linked Record Activity Notification.SFR1406

Derived [FR7.168] IAFIS shall validate reference number and IDENT link identifier prior to generating notifications to Authorized Contributor(s) (e.g., Wanting Agency, LESC, Rap Back Subscriber).SFR1407

Derived [FR7.387] IAFIS shall initiate notification process(es) for valid external system link notifications.SFR966, SFR967, SFR968

Derived [FR7.169] IAFIS shall send IVF Notification to the LESC when activity occurs on a linked record containing an IVF indicator based on dissemination rules.SFR964

BR433 [FR7.170] IAFIS shall send a Want Notification to the wanting agency when IDENT activity occurs on a linked record containing an active want based on dissemination rules. SFR889

BR111[FR7.171] IAFIS shall send a Special Processing Flag Notification to Authorized Contributor(s) when IDENT activity occurs on a linked record containing a special processing flag based on dissemination rules.SFR899

BR241, BR242, BR243 [FR7.172] IAFIS shall send Rap Back Notification to

the appropriate Authorized Contributor(s) when an External System Activity Notification is received for a Rap Back enrolled Identity.SFR940

The following functional requirements are additionally related to Rap Back notifications:

BR189, BR291, BR304 [FR7.173] IAFIS shall send Rap Back Notification in accordance with the latest EBTS version. SFR935, SFR942, SFR1857, SFR1858, SFR1859, SFR1860

BR125, BR241, BR242, BR243 [FR7.174] IAFIS shall send Rap Back Notification to the appropriate Authorized Contributor(s) that a Rap Back designated IAFIS event has occurred against a Rap Back enrolled Identity as a result of a positive fingerprint identification.SFR936, SFR1886

BR125, BR241, BR242, BR243 [FR7.175] IAFIS shall send Rap Back Notification to the appropriate Authorized Contributor(s) when a Rap Back designated event is part of a consolidation of Identity(ies) enrolled in Rap Back.SFR937

Derived [FR7.176] IAFIS shall send Consolidation Notification to the appropriate Authorized Contributor(s) when any identities involved in the consolidation are enrolled in Rap Back.SFR938

Derived [FR7.177] IAFIS shall send Renewal Notification to the Authorized Contributor prior to expiration of a Rap Back subscription. SFR943

### **1.1.5 Data Management**

The Data Management User Service includes new and modified legacy functionality from the IAFIS Link Activity Notification and IDENT Link Activity Notification use cases. The user requirements for the IDENT/IAFIS Repository Record Link capabilities under the Data Management User Service are:

Derived [UR7.24] IAFIS shall support link maintenance between IAFIS and IDENT. NGISUR123

Derived [UR7.25] IAFIS shall support direct enrollment into Rap Back. NGISUR149

Derived [UR7.26] IAFIS shall support the maintenance of Rap Back subscriptions. NGISUR150

Derived [UR7.27] IAFIS shall support Rap Back subscription renewal. NGISUR151

#### **1.1.5.1 Functional Requirements**

This section contains the functional requirements specific to the IDENT/IAFIS Repository Record Link capabilities that pertain to the Data Management User Service. The following functional requirements relate to the direct enrollment into Rap Back:

BR41, BR179, BR180, BR181, BR189, BR304, CJIS96 [FR7.178] IAFIS shall accept a Direct Rap Back Enrollment request from an Authorized Contributor in accordance with the latest EBTS version. SFR1361

Derived [FR7.179] IAFIS shall allow an authorized FBI Service Provider to submit a Direct Rap Back Enrollment request. SFR1362

Derived [FR7.180] IAFIS shall accept a Direct Rap Back Enrollment with a reference number and ten or fewer fingerprints from an Authorized Contributor. SFR1363

Derived [FR7.181] IAFIS shall accept a Direct Rap Back Enrollment request with a reference number from an authorized FBI Service Provider. SFR1364

Derived [FR7.182] IAFIS shall accept a Direct Rap Back Enrollment request with a reference number and specified biographic data from an Authorized Criminal Justice Contributor. SFR1365

BR244, BR245, BR246 [FR7.183] IAFIS shall accept, as part of a Direct Rap Back Enrollment request, a designation of which event type(s) (e.g., civil, criminal, external system, etc.) will trigger Rap Back Notifications for the associated Identity. SFR1366

Derived [FR7.184] IAFIS shall accept, as part of a Direct Rap Back Enrollment request, a Rap Back subscription expiration date for the associated Identity. SFR1367

Derived [FR7.185] IAFIS shall assign a default Rap Back subscription expiration date when an expiration date is not specified as part of the Direct Rap Back Enrollment request. SFR1369

Derived [FR7.186] IAFIS shall assign the default Rap Back subscription expiration date when the expiration date specified, as part of the Direct Rap



Back Enrollment request, exceeds the maximum allowable Rap Back subscription period.SFR1370

Derived [FR7.187] IAFIS shall accept, as part of a Direct Rap Back Enrollment request, a designation of the Authorized Contributor(s) who should receive Rap Back fingerprint identification search Notifications for the associated Identity.SFR1368

Derived [FR7.188] IAFIS shall enroll the Identity into Rap Back Service as part of a Direct Rap Back Enrollment request. SFR1371

Derived [FR7.189] IAFIS shall reject a Direct Rap Back Enrollment request when the specified reference number cannot be validated using the submitted fingerprints.SFR1372

Derived [FR7.190] IAFIS shall reject a Direct Rap Back Enrollment request when the specified reference number does not exist.SFR1373

Derived [FR7.191] IAFIS shall reject a direct Rap Back Enrollment request when the specified reference number cannot be validated using the submitted biographic information.SFR1374

BR189, BR291, BR304 [FR7.192] IAFIS shall provide a Direct Rap Back Enrollment response in accordance with the latest EBTS version. SFR1375, SFR2009

The following functional requirements relate to the maintenance of Rap Back subscription information:

BR41, BR179, BR180, BR181, BR189, BR204 [FR7.193] IAFIS shall accept a Rap Back Maintenance request from an Authorized Contributor in accordance with the latest EBTS version. SFR1377

Derived [FR7.194] IAFIS shall allow an authorized FBI Service Provider to submit a Rap Back Maintenance request.SFR1378, SFR1389

Derived [FR7.195] IAFIS shall require a Rap Back Maintenance request to contain a reference number.SFR1379

Derived [FR7.196] IAFIS shall provide the capability to modify Rap Back event type triggers as part of Rap Back Maintenance request.SFR1380

Derived [FR7.197] IAFIS shall provide the capability to add Rap Back Notification recipient(s) as part of Rap Back Maintenance request.SFR1381

Derived [FR7.198] IAFIS shall provide the capability to delete Rap Back Notification recipient(s) as part of Rap Back Maintenance request.SFR1382

Derived [FR7.199] IAFIS shall provide the capability to cancel a Rap Back subscription from the specified Identity as part of Rap Back Maintenance request.NFR71, SFR1383

BR189, BR291, BR304 [FR7.200] IAFIS shall provide a response to a Rap Back Maintenance request in accordance with the latest EBTS version.SFR1388

Derived [FR7.201] IAFIS shall reject a Rap Back Maintenance request when the specified reference number does not exist.SFR1385

Derived [FR7.202] IAFIS shall reject a Rap Back Maintenance request when the specified Rap Back subscription does not exist.SFR1386

Derived [FR7.203] IAFIS shall reject a Rap Back Maintenance request when the specified Rap Back Notification recipient(s) does not exist.SFR1387

The following functional requirements relate to the renewal of Rap Back subscription:

BR41, BR179, BR180, BR181, BR189, BR304 [FR7.204] IAFIS shall accept a Rap Back Renewal request from an Authorized Contributor in accordance with the latest EBTS version.SFR1390

Derived [FR7.205] IAFIS shall allow an authorized FBI Service Provider to submit a Rap Back Renewal request.SFR1391, SFR1398

Derived [FR7.206] IAFIS shall require a Rap Back Renewal request to contain a reference number and Rap Back subscription expiration date.SFR1392

Derived [FR7.207] IAFIS shall assign the default Rap Back subscription expiration date when the expiration date specified, as part of the Rap Back Renewal request, exceeds the maximum allowable Rap Back subscription period.SFR1394

BR189, BR291, BR304 [FR7.208] IAFIS shall provide a response to a Rap Back Renewal request in accordance with the latest EBTS version.SFR1397

Derived [FR7.209] IAFIS shall reject a Rap Back Renewal request when the specified reference number does not exist.SFR1395

Derived [FR7.210] IAFIS shall reject a Rap Back Renewal request when the

specified Rap Back subscription does not exist.SFR1396

The following functional requirements are related to the maintenance of record links from IDENT to IAFIS:

BR41, BR179, BR180, BR181, BR189, BR304, BR372, BR373 [FR7.211]

IAFIS shall accept External Link Maintenance requests from IDENT in accordance with the latest EBTS version.SFR1399

BR115, BR383 [FR7.212] IAFIS shall update an identity with the link information contained in an External Link Maintenance request from IDENT.SFR1401

BR189, BR291, BR304 [FR7.213] IAFIS shall respond to External Link Maintenance requests from IDENT in accordance with the latest EBTS version.SFR1404

Derived [FR7.214] IAFIS shall reject External Link Maintenance requests from IDENT when the specified link does not exist.SFR1402

The following functional requirements are related to the maintenance of record links from IAFIS to IDENT:

BR189, BR291, BR304 [FR7.215] IAFIS shall send Link Maintenance requests to IDENT in accordance with the latest EBTS version.SFR1090, SFR1117

Derived [FR7.216] IAFIS shall send a Link Maintenance request to IDENT when an Identity containing an IDENT link is part of a consolidation of multiple identities.SFR1115

BR385 [FR7.217] IAFIS shall send a Link Maintenance request to IDENT when an Identity containing an IDENT link is expunged.SFR1088

Derived [FR7.218] IAFIS shall include appropriate link information in a Link Maintenance request.SFR1089, SFR1116

BR189, BR304 [FR7.219] IAFIS shall accept a Link Maintenance response from an external system in accordance with the latest EBTS version.SFR1091, SFR1118

Derived [FR7.220] IAFIS shall perform exception processing when a Link Maintenance request is rejected by IDENT.SFR1092, SFR1119

- **Request from** [REDACTED]
  - Proposal was developed with USIS on a proposed pilot to add federal dispositions to III.
  - Working with BSS to determine status of similar pilot with OPM that was approved by APB previously.
- **Rap Back**
  - PICS employees were notified that an IIETF meeting has been scheduled for 10/21 to discuss the Rap Back Service requirements and its impact to the criminal justice community.
- **OMB 300 Changes**
  - Submitted revised OMB 300.

#### **HSPD 24**

- KBIWG meeting scheduled for 8/25. CJIS will be in attendance and will address the inaccuracy of the presentation from the 07/10 meeting.
- PICS participated in a VTC on 8/19 with representatives from GIU, CDIG, and NCTC to discuss the synchronization of KST records within IAFIS and TIDE.

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more complete CHRI will also benefit the adjudication of civil applicant background checks.

**Capability:** **Enhanced IAFIS Repository**  
**Current IAFIS:** Two logical areas, Criminal and Civil File; unable to move data between files; no automated response generation for Civil searches.  
**NGI:** "Rap Back" capability; reorganization of records; able to retain flat fingerprints.  
**Benefits:** Will notify responsible agency regarding criminal activity of individuals in sensitive positions; automatically allows for transition of files between civil and criminal repositories; supports flat fingerprints; supports national security; increases repository capacity; creates new functionality for the civil file; provides the ability to search the civil records with remote latent fingerprint submissions; will provide expanded/new search and response generation capabilities; collectively locate civil history and CHRI to facilitate the search, addition, consolidation, modification, expungement, response generation, and file maintenance of civil and criminal information.

**Capability:** **Interstate Photo System (IPS) Enhancements**  
**Current IAFIS:** Limited capabilities; photos must accompany arrest submission; no photo search capability.  
**NGI:** Increased number of photo sets accepted; new avenues to add and retrieve photos; ability to search for facial, scar, mark, or tattoo photos; acceptance of bulk submissions from established photo databases.  
**Benefits:** Easier submission and retrieval of photos into database; increased number of photos retained; new search capabilities will help to solve crimes; ability to collect and retain data to field facial identification services in a future multi-modal system.

**Capability:** **FBI National Palm Print System (NPPS)**  
**Current IAFIS:** No NPPS currently exists.  
**NGI:** Provide and maintain NPPS; provide candidate list based upon resulting matches to investigators; allow bulk submission of palm prints from contributors; incorporate latent search capability against the NPPS.  
**Benefits:** Will allow for identification of more prints (estimates are that 30% of latent lifts are made from palm prints); provides an additional tool to solve more crimes.

## II. Studies to Support NGI

- **Policy for Federal and International Biometric Exchange**
  - First draft of policy in process. Anticipate providing first draft to NBRP supervisors for review by COB 7/31.
- **National Name Check Program**
  - On 7/28 - Representatives from the Records Management Division's (RMD) and the CJIS Division met via teleconference to determine the feasibility of combining responses for the IAFIS fingerprint-based background check process and the National Name Check Program (NNCP) name-based background check process.
  - It was determined that a consolidated response is not feasible at the present time. NNCP plan is to create a focus group dedicated to improving Customer understanding of the NNCP name-based background check as it differs from the IAFIS background checks. This Focus Group will include NNCP, CJIS and customers of NNCP (USCIS, OPM, and DoS).
  - Paper summarizing recommendation is being vetted with Andy Scott (RMD) prior to notifying Brad Yost.
- **Submissions from Germany**
  - Met internally on 7/27 to outline technical discussion points that need to be addressed with DHS for the routing of Germany submissions to and from DHS.
  - Technical meeting with DHS to be scheduled week of 8/3.
- **Rap Back**
  - Participated in a teleconference with key Compact Council members assigned to the Rap Back Task Force to discuss initial responses to the white paper in preparation for the 8/11-12 meetings to be held at CJIS.
  - Key discussion points based on the 7/30 teleconference: FBI's legal authority to use civil submissions to search unsolved latent file; the need to submit a new civil submission for Rap Back enrollment; what triggers a Rap Back notification; and fees associated with the service.
- **DHS/US-VISIT Audit**
  - US-VISIT requested the audit planned for November to be moved to December due to a major IDENT system release in November. NBRP recommended the Audit Unit to ensure our Executive Management is onboard with moving the audit to December.

#### **HSPD 24**

- Assembled comments on the NCTC/ISKD presentation and supplemental material emphasizing CJIS can provide DHS all DoD submissions immediately.
- The Information Sharing and Access Interagency Policy Committee meeting is scheduled to meet on 8/20.
  - The FBI's Nomination Process for Non-FBI Subjects is listed as agenda item number two.

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## II. Studies to Support NGI

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