FBI Next Generation Identification (NGI)

Bigger, Better, Faster

NGI - Overview for Strategic Planning
July 2013

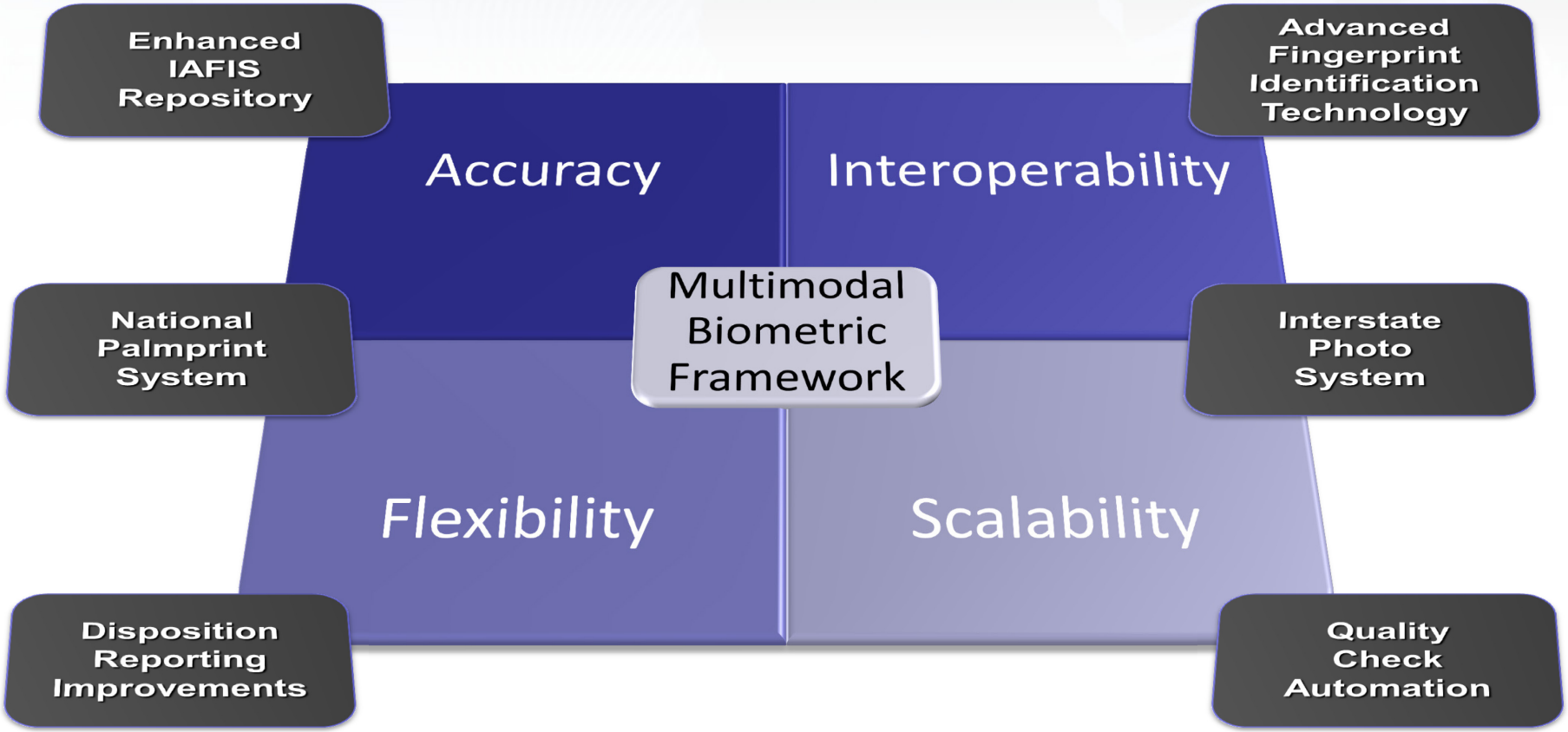
IAFIS Database

Criminal History File

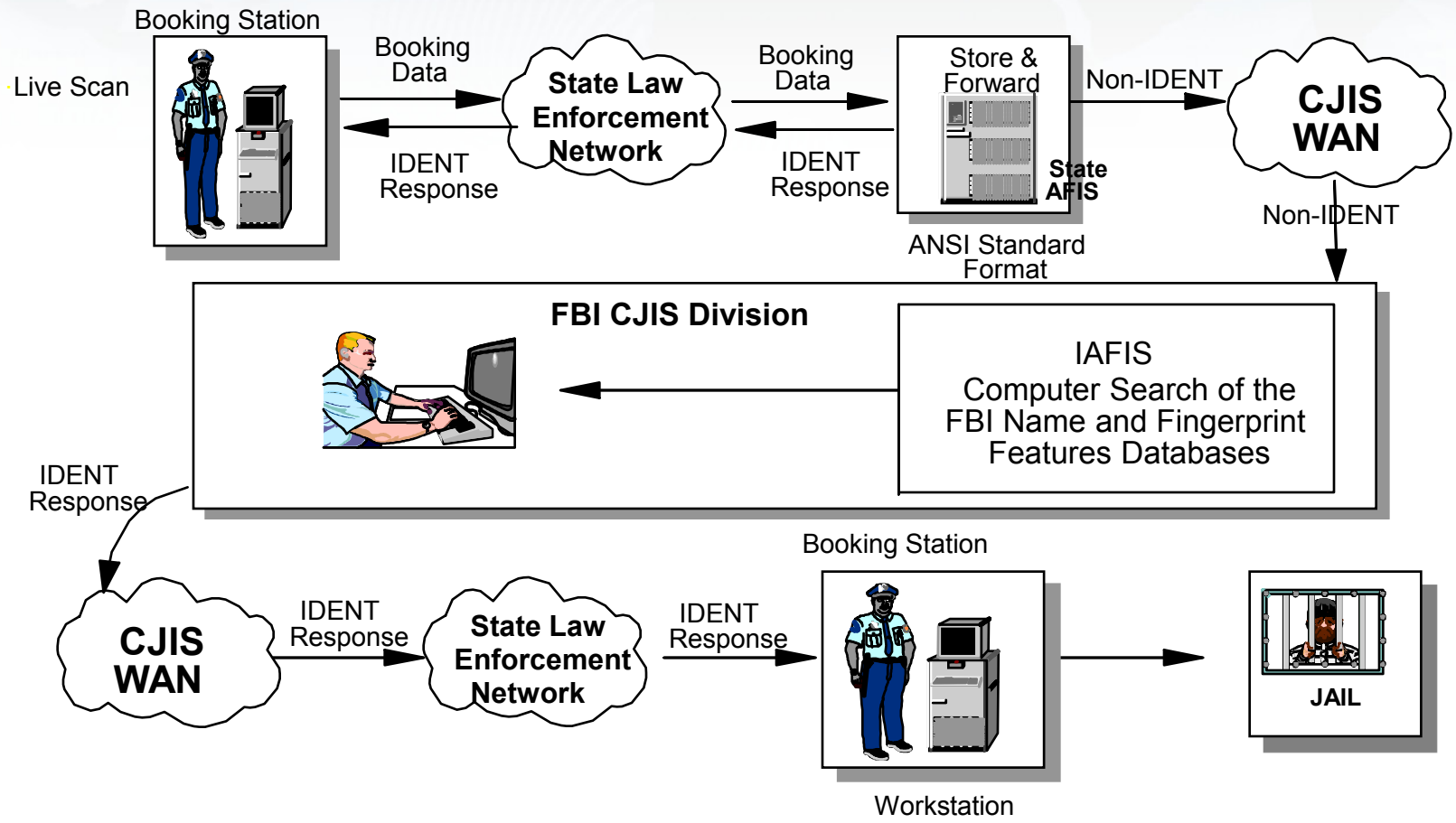
- 75.4 million subjects with over 284+ million arrest cycles, including:
  - 1.2 million wanted persons – Estimate 45% of potential entries
  - 640,000+ sex offenders
  - 15+ million photos (8 Million subjects)
  - 132,000+ Known and Suspected Terrorists
  - **Tenprint Submissions to IAFIS**
- FY10: 61.3 million
- FY09: 52.7 million
- FY08: 35.5 million
- Tenprint Criminal Submission Rate: 57%
- Tenprint Civil Submission Rate: 43%

NGI Capabilities

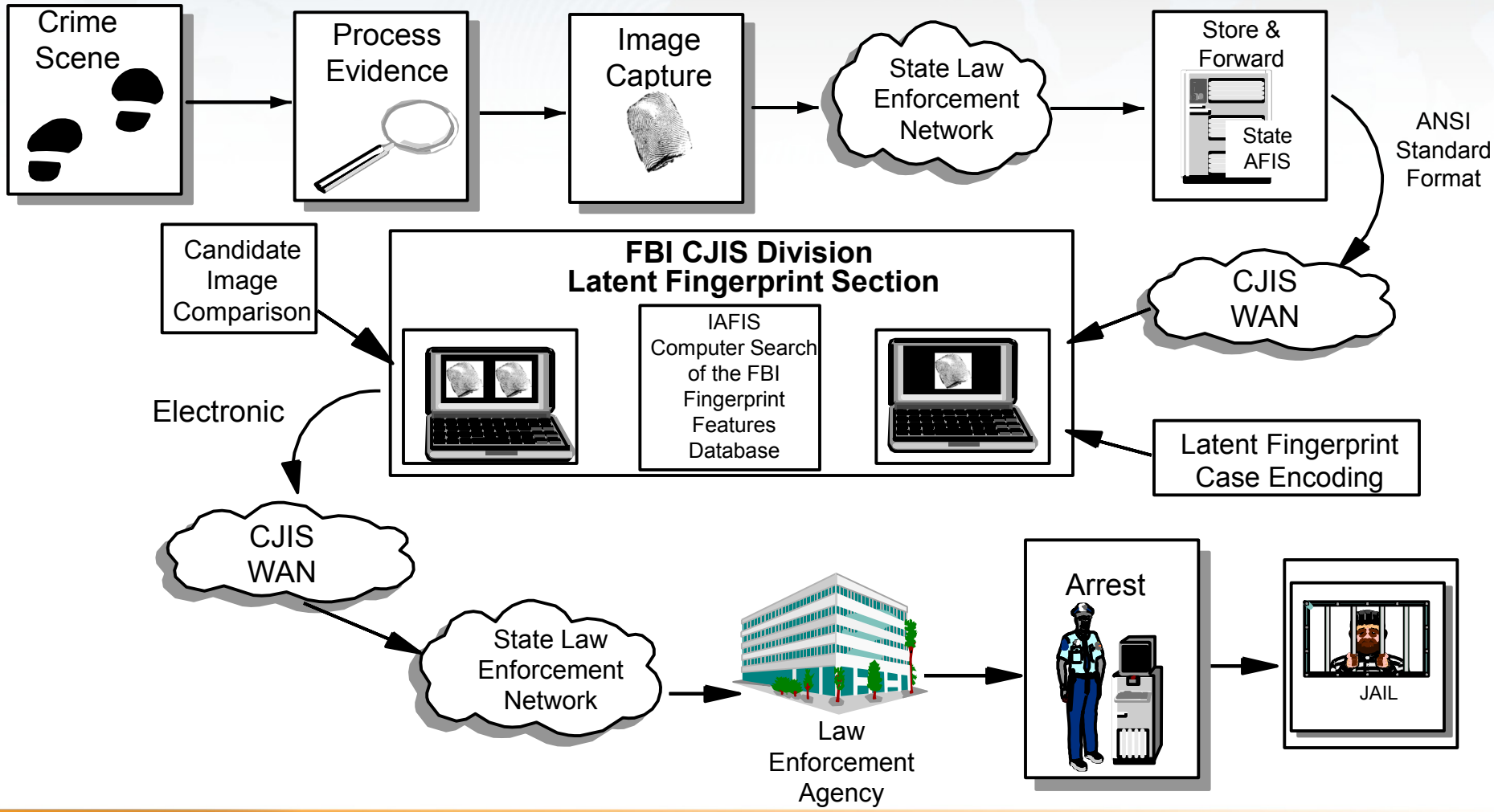
Bigger, Better, Faster



Core IAFIS Service
Electronic Tenprint Submission Criminal



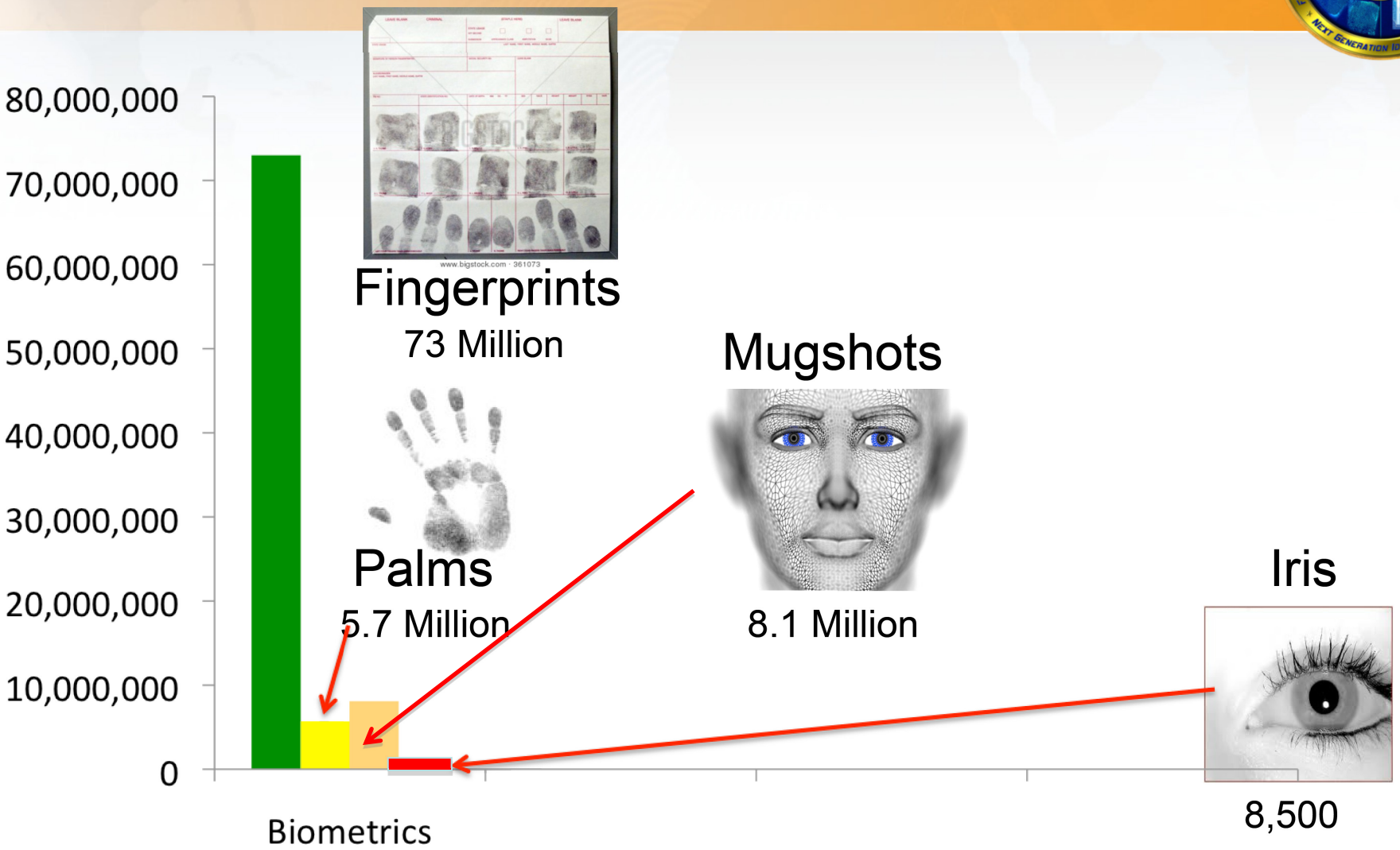
Electronic Latent Submission



NGI Core Services

- **Information:** Supports user requests for biographic and/or biometric information for a specific individual.
- **Investigative:** 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.
- **Notification:** Event notification to users for their data contained within any of the NGI repositories
  - Criminal & Civil Files, Special Population Cognizant [SPC] Files, Unsolved Latent File [ULF], Unsolved Iris File [UIF], and Unsolved Photo File [UPF]).
  - Notification on Immigration Violator File (IVF) records will be provided to the Law Enforcement Support Center (LESC).

Next Generation Identification (NGI)



NGI Implementation Schedule

Increment 0
Complete

Advanced Technology Workstations

- Replace obsolete hardware
- Provide high resolution of biometrics

Increment 1
Complete

Initial Operational Capability

- Identification Fingerprint Search Capability
- More accurate searches
- Better support for rolled/flat processing

Increment 2
Complete

RISC and Initial NGI Infrastructure

- Repository for Individuals of Special Concern (RISC)
- Rapid mobile searches
- RISC Web Services

Increment 3
Complete

Palms and Latents

- Investigative Palm Print search capabilities
- National Palm Print repository
- Latent Enhancements
- Unsolved Latent File cascaded searches
- Rapid DHS CBP response

Increment 4
In Progress

Rap Back, Facial, Photo/SMT Search Capabilities

- Faster Response Times
- Facial and SMT searches
- IAFIS Functionality Replaced
- Verification
- Enhanced Interoperability
- Disposition type of transactions
- Web Services

Increment 5
In Progress

Iris Pilot

Trade study report

- Conduct Iris Pilot based on trade study results

Increment 6

Technology Refreshment

2010 → 2014

NGI Biometrics

- Types
  - Palm Prints
  - Images (Mugshots – SMT)
  - Iris Images

- Services
  - New Universal Latent Workstation 6.3 (EFS) EBTS 9.3
  - Universal Facial Workstation
  - Rapid Biometric Search – Mobile ID and RISC

Palms – May 2013

5.5 + million

- Store, Search and Retrieve
  - Palm Prints - accept new prints
    - Legacy Bulk Submission
    - Ability to store fingerprint submissions at 1,000
- ULW 2012 Ver. 6.3 EBTS 9.3
  - Submit Latent Palms to Unidentified Latent File
  - Major Case Prints
  - Latent Palm Search
  - Retrieval of Prints

NGI Interstate Photo System (IPS) Initiative

Image Repository – 2014

8 Million Subjects
Identity based repository

- **Enhance photo enrollments**
  - Bulk submissions of photos
  - Scars, marks, and tattoos (SMT)
    - LiveScan –needs to collect data, state needs to be able to store and/or pass data

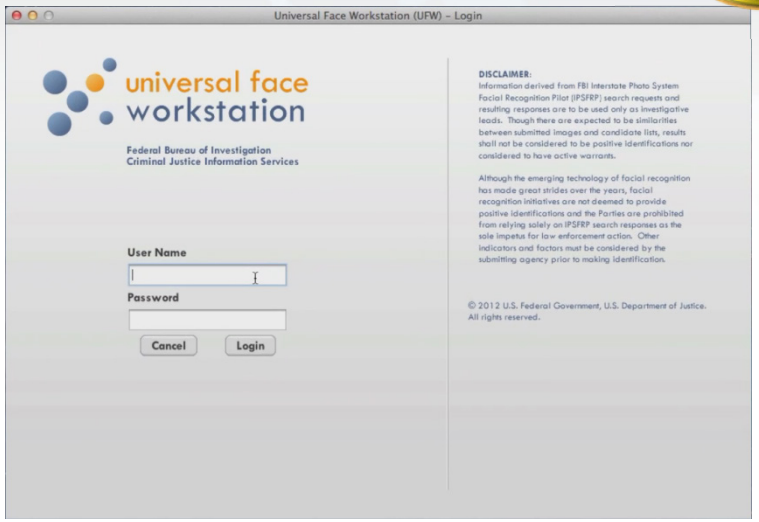
Image Retrieval – From AFIS System if you have that capability

Image Repository - 2014

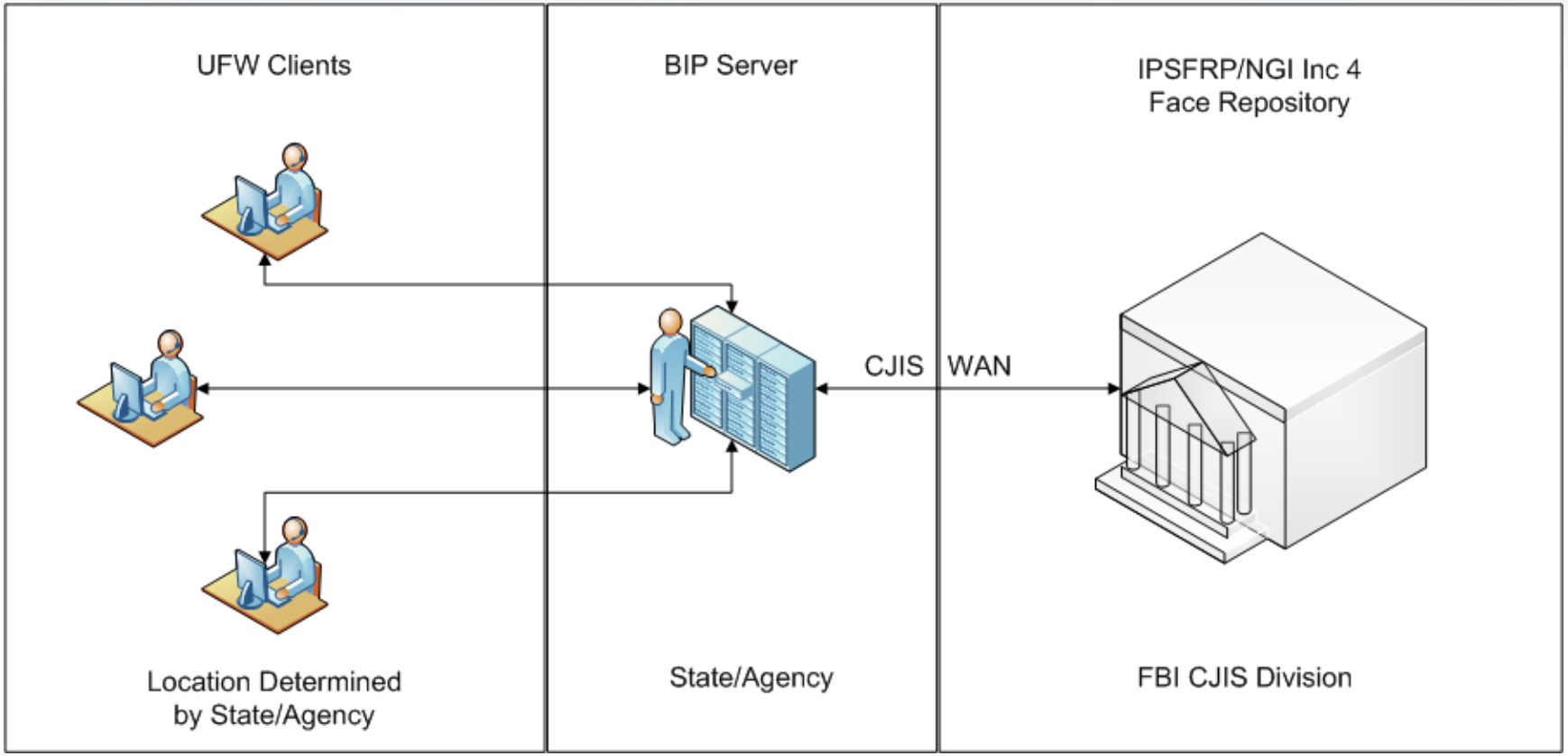
- **Photo search capability**
  - New search function for photo repositories
    - **(including SMT and mug shot photos)**
- **Facial recognition investigative tool**
  - Conduct searches to generate ranked candidate lists of potential matches
- **Image Retrieval –**
  - **AFIS System - if you have that capability**
  - **FR System**
  - **NGI Provided tool – UFW -2012**

Universal Face Workstation (UFW)

- FBI user software to support access to NGI Face Pilot and NGI System face search capabilities
- Search preparation, submission, and candidate list review
- Cross Platform (Windows, OSX, Linux)
- Built on open source frameworks
- Extensive support for user developed plugins
- Available for authorized Law Enforcement use free of charge

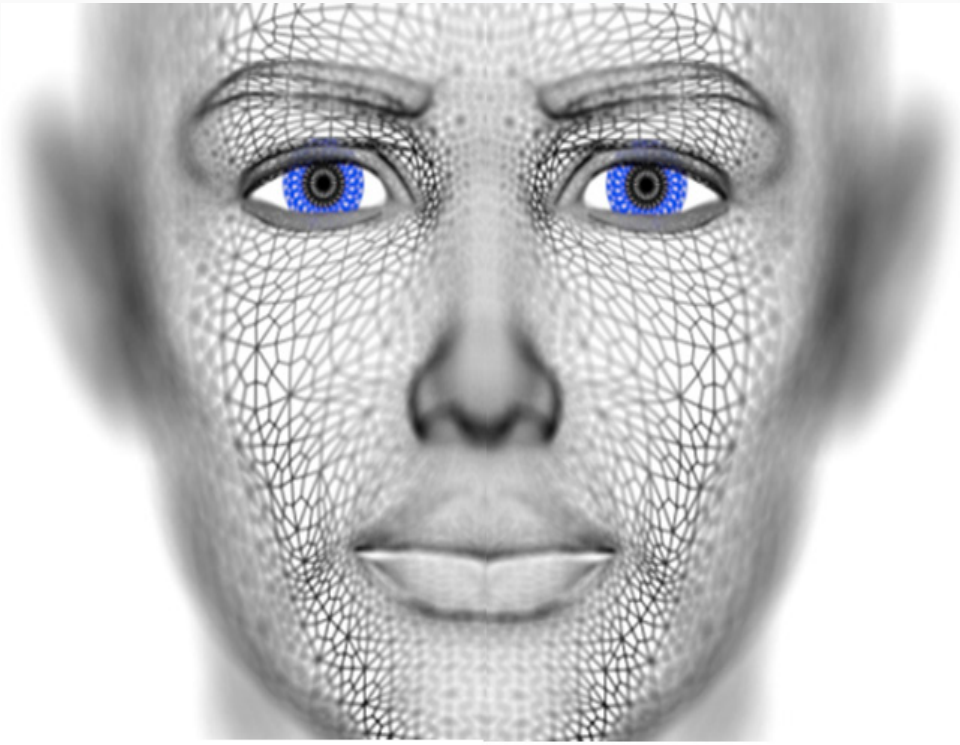


Basic UFW/BIP Installation



Important Note

- UFW does **NOT** provide a means for a States or Agencies to search face images not contained within the FBI pilot repository
- The FBI Pilot only searches Type-10 records submitted to the FBI in **CRIMINAL** transactions (CAR)



RISC

Repository
of
Individuals
of
Special
Concern

Advanced Fingerprint Identification Technology Repository for Individuals of Special Concern (RISC)

Supports mobile fingerprint identification operations on a national level with FNU

2.1 Million - Subset of Criminal Master File – IAFIS and III

- Biometric searches of the worst of the worst – searching fingerprints of
  - Wanted persons – With FNU 600k Felony & some Misdemeanor
  - Known or appropriately Suspected Terrorists 132,000
  - Sex offenders 640,000
  - Immigration Violator File 283,000
  - Violent Offender File – To be added

➢ **75% NY warrants contain an FNU - 25K Wants, 35K sex offenders**

➢ **83% of NJ warrants have an FNU – 27K Wants, 13K sex offenders**

➢ **45% of PA warrants have an FNU – 17K wants, 10K sex offenders**

RISC Implementation

Increment 2 (2011) Deployment

Increment 3 (2013)

- Perform a Cascaded Unsolved Latent (

Increment 4 (2014)

- Provide Photos with a RISC response

Rapid Mobile Identification Service

RISC Totals:
Over 891,711 searches (4/2013)

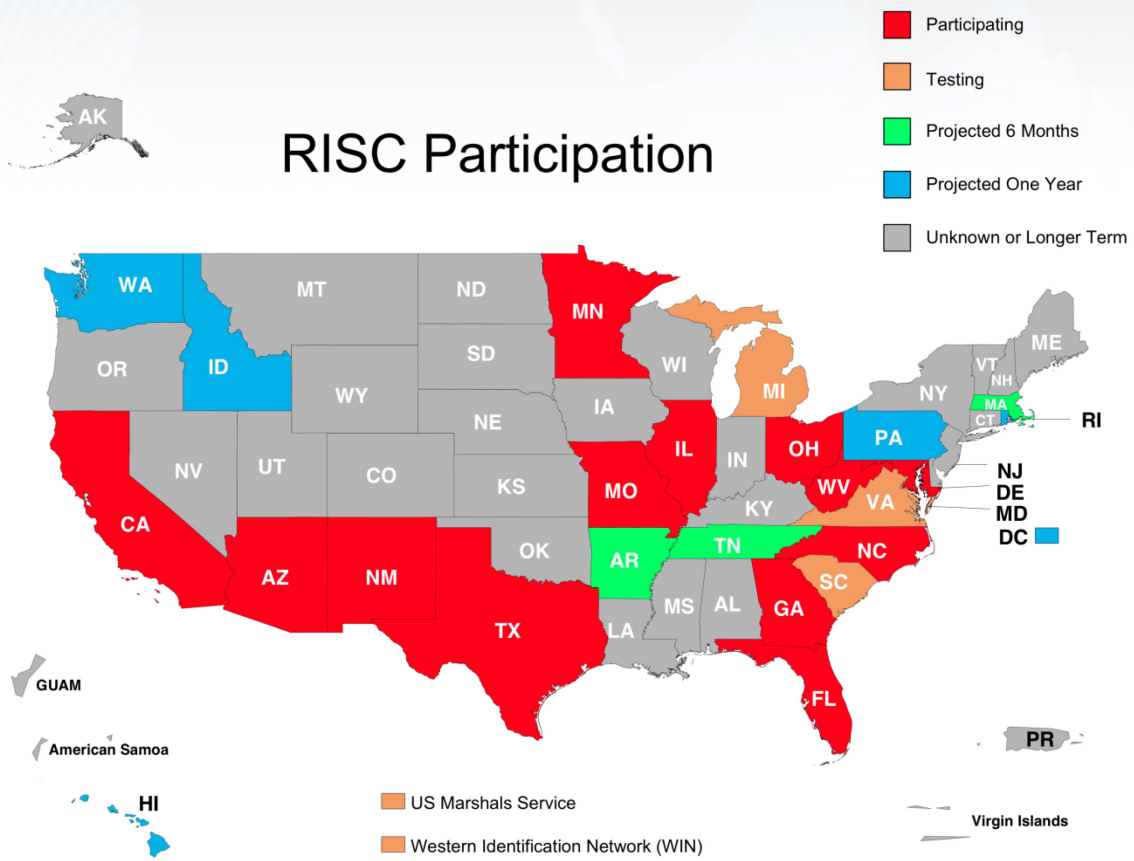
500+ agencies

Average daily transactions:
900 to 1000 Peak 1300

Average Red Hit Rate:
6% weekly

72% Wanted
28% Sex Offender

Average response time:
< 7.0 Seconds



RISC

Rapid Biometric Search

Right & Left Index

Two to Ten Prints Used

If devices receive CJIS Data = CJIS Security Policy Compliance

Iris Pilot (Increment 5)

- **NGI Iris Pilot (Increment 5)**
  - Completed Concept of Operations
  - Develop and deploy a iris pilot system capable of performing iris image recognition services
  - Finalizing Technical Specification Document and MOU's for pilot participation and bulk iris submissions
  - Working with; CA, MO, NY, TX, RI, US Customs and Border Protection, Department of Defense, & U.S. Probation and Parole
  - Provide operational observations to assist the FBI in planning efforts for NGI's national iris service

Summary

NGI Offers Bigger, Better, Faster Biometric Services to Support Federal, State, and Local Stakeholders

- Development of future services currently underway
  - Check with Program Office for technical assistance
  - **Store all biometrics with FNU**
  - **Palms must have distal region to validate – Awareness and training for orientation**
  - Upgrades to booking equipment – include interface for submission of mugshots and SMT – Use ANSI/NIST Table
  - Update to newest EBTS 9.3, 9.4 - 2014 EBTS 10.0
  - ULW Integration 6.3
- Now is the time to begin planning for participation with NGI Services

Questions / Comments

Federal Bureau of Investigation

Criminal Justice Information Services Division

Next Generation Identification Program

Executive Outreach and Education

NGI Web Page: http://www.fbi.gov/hq/cjisd/ngi.htm

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