

**CJIS ADVISORY POLICY BOARD (APB)
SPRING 2012 ADVISORY PROCESS MEETINGS
INFORMATIONAL TOPICS**

STAFF PAPER

INFORMATIONAL TOPIC U

Next Generation Identification (NGI) Program Implementation and Transition Update

PURPOSE

To provide a high-level overview of the NGI Program status and transition efforts

POINT OF CONTACT

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FEEDBACK

Please send all questions or comments concerning this topic via the electronic feedback form on Law Enforcement Online or via the feedback form provided to the Training and Systems Education Unit at facsimile, (304) 625-5090 or e-mail: <AGMU@leo.gov>.

BACKGROUND

Driven by advances in technology, customer requirements, and growing demand for Integrated Automated Fingerprint Identification System (IAFIS) services, the FBI has initiated the NGI program. This program will further advance the FBI's biometric identification services, providing an incremental replacement of current IAFIS technical capabilities, while introducing new functionality. NGI improvements and new capabilities will be introduced across a multi-year time frame within a phased approach. The NGI system 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.

Increment 1 – Advanced Fingerprint Identification Technology (AFIT) – Complete – Increment 1, which replaced the Automated Fingerprint Identification System (AFIS), began transition February 25, 2011. This transition started with a five-day operational validation of all tenprint submissions processed through the AFIT, in parallel with the AFIS, as a secondary operational system. The implementation of AFIT required no technical or programming changes by system users; however, AFIT performance had an immediate impact on all customers. AFIT accuracy has been demonstrated at over 99%.

Also, this increase in automated accuracy has allowed operations to reduce the dependency on a supplemental name check, resulting in a 90% (weekly) decrease in the number of manual fingerprint reviews required by CJIS Division service providers. Leading up to this deployment, 1.274 Billion images have been re-characterized for use within AFIT, in eight weeks time. This task took the previous system well over one year to complete.

Increment 2 – Nationwide deployment of the Repository for Individuals of Special Concern (RISC) and Initial NGI Infrastructure – Complete – Increment 2 was deployed August 25, 2011, and included the deployment of the nationwide RISC Rapid Search in both Simple Mail Transport Protocol or Extensible Markup Language web service format. This comprised the initial deployment of the NGI Web Services interface.

Since the Increment 2 deployment, all previous RISC Pilot agencies (MD, TX, OH, MN, GA, FL) have transitioned to the new national service, as well as the addition of the California Department of Justice. Average daily search volumes have doubled since the deployment of the national service and new users continue to be added.

NGI RISC Totals 10/01/11 to 01/02/2012	
<i>Total RISC Transactions thru 01/02/2012</i>	37,548
<i>Average Response Time for December 2011</i>	6.59 seconds
<i>Average Daily Submissions for December 2011</i>	498
Response	Percentage
<i>Green</i>	92%
<i>Yellow</i>	.5%
<i>Red</i>	<u>6.5%</u>
<i>Wants</i>	74%
<i>SOR</i>	26%

The NGI Program Office (NGIPO) continues to work with interested states to identify the appropriate steps required to implement this new RISC service. Based on the feedback from contributors through extensive outreach activities, the NGIPO will publish a RISC

user guide in the summer of 2012 to help educate potential users of the nuances specific to the RISC service and the steps they can take to address these requirements early in their implementation planning. The deployment of the national service, also results in the retirement of the CJIS RISC Pilot Technical Specification document. The Electronic Biometric Transmission Specification (EBTS) version 9.3 should be used to guide new RISC participation. As always, agencies interested in participating, or just seeking additional information, are asked to contact the NCIPO at (304) 625-3437.

As recommended by the Advisory Policy Board, the addition of the National Crime Information Center Immigration Violator File (IVF) to the RISC data sets is currently scheduled for April 2012. This will give law enforcement utilizing the RISC service access to an additional 300,000 actionable records of convicted criminal aliens who have been deported for drug trafficking, firearms trafficking, or serious crimes and foreign born individuals who have violated some section of the Immigration and Nationality Act. Additional RISC enhancements cascading against the Unsolved Latent File (ULF) will begin with the deployment of Increment 3 in 2013, and with the deployment of Increment 4, photos, if available, can be retrieved as part of the requested RISC response.

DISCUSSION AND ANALYSIS

Increment 3 – Palms and Latents – In Progress – Increment 3 establishes the National Palm Print System (NPPS) and transitions IAFIS latent functionality to the new NGI infrastructure. Increment 3 will provide all latent capabilities currently supported by IAFIS and deploy NGI enhanced latent capabilities for searching palm prints and supplemental fingerprints and palm prints. The following briefly summarizes the contributor benefits from latent capabilities in Increment 3:

- Perform latent searches of all fingerprint, palm print, and supplemental print event records
- Cascade incoming tenprint, palm print, and supplemental fingerprint and palm print records against the ULF
- Retrieve images, and associated information for fingerprint, palm print, and supplemental print events
- Retrieve audit trails for palm prints and supplementals
- Retrieve images, audit trails, and associated information for ULF records
- Receive Unsolved Biometric Match notifications for hits against ULF records
- Support biometric decisions by allowing contributors to provide feedback on candidates provided from search results

- Enhanced ability for contributor maintenance of their ULF records
- Allow direct enrollment and deletion of palm print and supplemental biometrics

The EBTS Working Group has published the CJIS EBTS version 9.3. This version contains the specifications required to take advantage of the new and enhanced capabilities being delivered with Increment 3. The NGIPO has created a supplementary NGI Increment 3 EBTS Changes document to highlight changes specific to Increment 3 new functionality and enhancements. In addition to many changes for existing Type of Transaction (TOT)s, six new TOTs have been added:

- Biometric Audit Trail Retrieval Request (BATQ): Request to retrieve a dissemination audit trail for biometric imagery owned by requestor for a given Universal Control Number. Request can be further refined to a biometric set or image types
- Biometric Audit Trail Retrieval Response (BATR): Audit Trail response containing information of when images have been disseminated from NGI. Contains repeating set of new Audit Trail Record field containing the ORI that received the images, the date of dissemination, the TOT used and biometric image details
- Biometric Delete Request (BDEL): For Increment 3 this supports Fingerprint deletions from Special Population Cognizant and Latents from the ULF, Palmprint deletions, and Supplement Fingerprint and Palmprint deletions
- Biometric Delete Response (BDELR): Successful response to a BDEL request
- Biometric Decision Request (BDEC): Submission of an adjudication decision as a result of a Latent Investigative Search or an Unsolved Latent Match notification. Supports Latent decisions for Increment 3 and will support other biometric types of decisions in the future
- Biometric Decision Response (BDECR): Successful response to a BDEC request

Both documents are available at <http://www.fbibiospecs.org>.

Universal Latent Workstation (ULW) software users can anticipate a late summer 2012 delivery of ULW 2012. This version will support the new latent functionality being delivered in Increment 3 and is available at no cost from the CJIS Division. Failure to upgrade will result in users not being able to take advantage of the new functionality.

On October 14, 2011, the IAFIS ULF reached capacity and records from the Other Federal Organizations subdivision began to be deleted, starting with the oldest deposits.

Likewise, the Local and State subdivision will reach capacity in the near future. If the record owner wishes to keep the unsolved latent images in the ULF, a new search of IAFIS is required. Users of the ULW software will be required to obtain ULW Software, Version 6.0.9, to receive and manage the Unsolicited Unsolved Latent Delete notifications, as previous versions of the software are not compatible. Failure to obtain the software will preclude notification of deleted records. The Latent Investigative Services Program Office (LISPO) is drafting a letter to notify contributors of these important changes. Additional work is also underway in support of an Identification Services Subcommittee action item, to develop a best practices/policy document to define the ULF operations and maintenance requirements moving forward, slowing the growth of the ULF and ensuring the most relevant data is maintained within the repository.

The NGIPO continues to be very active and extremely successful establishing contact with contributing agencies, to develop an understanding of their unique requirements and readiness regarding their participation in new and enhanced palm print and latent capabilities. In anticipation of the upcoming NPPS search capability, the NGIPO continues its Biometric Acquisition (BA) project in an effort to have a well-populated gallery once the functionality is available. This project has supported the collection of more than 3.3 million palm prints to date, and will continue to grow as Increment 3 deployment draws near. This project supports users with day-forward palm print submissions as well as bulk submissions of legacy images. A Memorandum of Understanding (MOU) has been developed to support the collection of bulk submissions and is currently in the final legal review. Several states are awaiting its completion. Agencies interested in participating, or seeking additional information, are asked to contact the NGIPO at (304) 625-3437. The NGIPO will work with agencies and their corresponding CJIS Systems Officer (CSO) to evaluate their current system state and develop strategies for going forward with participation in these new and updated services.

Increment 4 – Rap Back, Facial, Photo/Scars, Marks, and Tattoo (SMT) Search Capabilities – In Progress. Design work continues as the increment progresses toward the Critical Design Review. The following briefly summarizes the contributor benefits from capabilities in Increment 4:

- National Rap Back Service will provide notification of criminal activity on previously cleared individuals
- Enhanced IAFIS Repository (EIR) provides access to subject information spanning multiple repositories
- Access to a national repository for Facial and SMT searches for investigative purposes
- Fingerprint verification services using 10 or fewer fingerprints
- More complete and accurate history records

The NGIPO moved forward with the NGI Facial Recognition Pilot (FRP) project in December 2011. The CJIS Division has executed an MOU with Michigan, Hawaii, and Maryland to participate in the pilot. This will be a collaborative effort between the FBI and piloting agencies to identify user needs and develop useful investigative tools for the law enforcement community. The FRP will provide searches of a repository consisting of subsets from the Interstate Identification Index (III) mug shots. The repository will be updated periodically receiving III photo pulls on a daily/weekly basis. It is anticipated that the repository will contain 12 million searchable frontal photos at deployment. The facial recognition search requests will be processed automatically (lights out), and results will be returned in a ranked candidate list. Initial piloting agencies will be limited to states with an existing Face/Photo searching capability. Pending the deployment of the Universal Face Workstation (UFW) software, participants without current Face/Photo search capabilities will be solicited to participate in the Facial Recognition Pilot as UFW users. Agencies interested in participating, or just seeking additional information, are asked to contact the NGIPO at (304) 625-3437.

The performance of facial matching systems is highly dependent upon the quality of images enrolled in the system. Therefore, it is important that agencies submit images that meet, at minimum, specific image quality metrics and recommendations so system users may realize the maximum potential benefit. The NGIPO continues to work with contributors and industry to enhance the image quality of the repository. The Facial Identification Scientific Working Group (FISWG) and the National Institute of Standards and Technology (NIST) have produced best practices documents for image capture and equipment. Additionally the NGIPO has moved forward with the generation of its first Face Report Card for the state of Oregon . The purpose of the Face Report Card is to provide feedback to individual agencies regarding the quality of images submitted. This feedback includes suggestions which, if followed, will improve the quality of future image submissions. As the quality of images submitted to the Federal Bureau of Investigation (FBI) improves, it is expected that agencies participating in the FBI's face matching systems will benefit from this improved gallery.

The NGIPO continues to work with the Rap Back Focus Group, a follow-up effort to the Rap Back Task Force, on operational impacts related to federal Rap Back implementation. The group met at the CJIS Division on November 8th and 9th to discuss privacy mitigation strategies and outstanding policy and technical issues. Although no formal recommendations were approved, the group's feedback resulted in the identification of several areas requiring further research:

- Parameters surrounding the sharing of notification data for both criminal justice and non-criminal justice purposes

- Definition of event notification triggers for both criminal justice and non-criminal justice purposes
- Clarification of data elements returned in notification transactions to ensure linkage can be established at the state between the Rap Back subscriber and the affected agency
- Further refinement of validation and pre-notification requirements

The focus group is also providing guidance on the development of a Rap Back Business Concept of Operations document (CONOPS). The CONOPS offers information to system implementers on the core, maintenance, privacy, and conceptual services available for the NGI Rap Back capability. The first draft version of the document was released at the beginning of 2012.

As announced at the December 2011 Advisory Policy Board and Compact Council meetings, the NGIPO is developing a pilot program to assess various Rap Back operational concepts. The initial participants under consideration include the Office of Personnel Management, the United States Citizenship and Immigration Services, the Transportation Security Administration, and the Customs and Border Protection. Authority to retain the civil fingerprints submitted by these federal entities is currently granted under the Fingerprint Identification Records System (FIRS) System of Records Notice (SORN). Possible state participation during the pilot is contingent upon appropriate legal authority and privacy documentation, and CJIS resource availability.

The Rap Back Pilot, which will involve limited populations of designated enrollees, will provide arrest-only, manual notifications to participants; the form of notification (e.g., email, telephone) will be predicated upon the capabilities of the receiving agency. Participation in the pilot will be fee-based, though the exact costs are being analyzed by

CJIS and will be determined at a later date. The NGIPO is anticipating the operational components of the Rap Back Pilot to be in place by late Spring 2012.

Agencies interested in participating, or just seeking additional information regarding any of these new services are asked to contact the NGIPO at (304) 625-3437. The NGIPO will work with agencies and their corresponding CSO to evaluate their current system state and develop strategies for going forward with participation in these new and updated services.