

**CJIS ADVISORY POLICY BOARD**

June 4-5,2009

**STAFF PAPER**

**WORKING GROUP TOPIC #4**

Clarification on Record Linking

**PURPOSE**

The purpose of this paper is threefold:

- provide full transparency into the Record Linking concept as it applies to Shared Services functionality for Interoperability
- provide the data managements necessary to support Record Linking
- and solicit user input on an alternative implementation option

**POINTS OF CONTACT**

[redacted] Federal Bureau of Investigation/Criminal Justice Information Services  
Division (FBI/CJIS)/Biometric Services Section [redacted]

[redacted] DHS/National Protection & Programs Directorate/United States - Visitor  
and Immigrant Status Indicator Technology (US-VISIT), [redacted]

b2  
b6  
b7c

**REQUEST OF THE WORKING GROUPS**

The Working Groups are requested to review the information detailing the record linking concept for the Next Generation Identification (NGI) and IDENT/IAFIS Interoperability, consider the alternative implementation option presented in this paper and provide a recommendation.

**BACKGROUND**

The Federal Bureau of Investigation (FBI) Criminal Justice Information Services (CJIS) Division and the Department of Homeland Security (DHS) United States Visitor and Immigration Status Indicator Technology (US-VISIT) Program have been working together to achieve Interoperability between the FBI's Integrated Automated Fingerprint Identification System (IAFIS) and the DHS Automated Biometric Identification System (IDENT). Interoperability is planned through incremental deployment with full interoperability to be achieved through the NGI. Since this paper discusses functionality

FBI-SC-1333

that will be accomplished through full interoperability, all references to what is currently known as IAFIS are reflected as NGI.

One benefit of full interoperability between NGI and IDENT is providing authorized users the ability to submit a single biometric transaction via a single interface to transparently and efficiently retrieve information from both systems. Another feature is users can be notified, via this single interface, whenever relevant data is updated in either system. A key component towards achieving this functionality is using a unique, "person centric" identifier from each system to link fingerprint records common to both NGI and IDENT, hereafter referred to as Record Linking.

Record Linking also has the potential to provide the following benefits:

- **Minimize the number of identification searches:** Where policy permits, when the user of one system hits against a linked record, information from the other system can be obtained without having to search the entire other system, which also decreases system processing. Furthermore, authorized criminal justice IDENT users, such as Immigration and Customs Enforcement (ICE) and Customs and Border Protection (CBP) for authorized criminal justice purposes, may retrieve the full criminal history record information from the Interstate Identification Index (III).
- **Faster response times:** Using the link identifier to retrieve information from the other system, as opposed to having to re-perform biometric searches results in faster response times. This also results in faster notifications to the shared identity owner in the other system.
- **Reduced operations cost:** Reductions in the number of cases requiring both systems to be exhaustively searched will reduce matcher and associated hardware costs and also reduce human verification costs.

The benefits of full Interoperability also present concerns with regard to protection of the data. To address these concerns, nine Data Protection Strategies have been incorporated into Interoperability. The primary objective of these strategies is to ensure that data shared between the systems is accurate, timely, relevant and complete. These Data Protection Strategies were introduced at the Fall 2006 Working Group meetings and endorsed by the Advisory Policy Board (APB) in December 2006.

Specifically, Data Protection Strategy #2 (Inventory of Data Shared), included the initial plan to do a comparison between data residing in NGI and IDENT prior to deployment of Interoperability to ensure each system reflected data that is current, accurate and appropriate. This initial strategy implementation would have also immediately identified commonly held subjects within NGI and IDENT to begin Record Linking.

FBI-SC-1334

In June 2008, an Informational Topic Paper discussed an implementation change to Data Protection Strategy #2. As opposed to a technically challenging "initial sync" of both systems, the agencies intend to incrementally establish record links as transactions are directed to the alternate agency.

Policies and agreements for data management have been established to ensure that each system continues to reflect data that is current, accurate and appropriate. For example, if a link has been established and subsequently all information on a subject is removed from NGI, a delete will be sent to IDENT and the link will be removed. Likewise, when DHS removes a record, a delete request will be sent to NGI and the link will be removed. Additionally, audits will be conducted periodically on both systems to ensure that proper maintenance actions are being performed.

With progress being made towards Interoperability, the intention of this paper is not to cover every aspect of Record Linking, but to provide significant points on how Record Linking is established in the Shared Services environment and an alternative implementation option.

## **DISCUSSION AND ANALYSIS**

As stated previously, a record link is established for those fingerprint records both common to NGI and IDENT. However, a condition that must be met with regards to the fingerprint records held in both systems before a link can be established is both systems must have fingerprints for the same person as a result of an independent encounter. The only exception to this is where the FBI and DHS missions overlap. For example, an individual encountered by DHS's Customs and Border Protection for a criminal justice purpose could be maintained in both IDENT and NGI. In this instance, a record link could be established.

Furthermore, for Record Linking to be fully accomplished, the process of a new enrollment in IDENT or establishment of a criminal history record within NGI should initiate an identification search request to the other system to determine if the person has a common identity. This is consistent with the goal of the interoperability effort defined in the DHS/US-VISIT and DOJ/FBI Interoperability Concept of Operations to provide full information sharing between the two biometric repositories. For example, CJIS stakeholders will have the option to request a search of IDENT when submitting to NGI. However, a criminal submission to CJIS that does not designate IDENT as an external system to search will still be sent to IDENT for record linking purposes only. In this shared services environment, IDENT will not retain any biometric or biographic information unless IDENT already maintained the subject in their system as a result of an independent encounter. Exceptions to this rule will be determined through data owners and

FBI-SC-1335

all agencies party to this effort.

This functionality was an area of concern to the IAFIS Interface Evaluation Task Force. The other option is to only send a search to IDENT when the stakeholder requests, thereby minimizing the Record Linking functionality. This option could also result in ICE and CBP to miss state and local law enforcement interactions with Lawful Permanent Residents and visitors that may impact admissibility into the United States or present a national security threat to the United States.

The next process in link establishment is determining if the subject is a commonly held subject through biometric comparison and storing a "person centric" link identifier. From the CJIS stakeholder perspective, if a Tenprint Identification search sent to IDENT is determined to be a match, IDENT will store the "NGI link identifier" and return a response that includes the "IDENT link identifier" and biographic data. The "IDENT link identifier" is then stored with the subject's NGI record. From the DHS stakeholder perspective, if a Tenprint Identification Search sent to NGI is positively identified, NGI will store the "IDENT link identifier" and return the subject's Record of Arrest and Prosecution sheet (RAP sheet), which includes the "NGI link identifier" and biographic data. The "NGI link identifier" is then stored with the subject's IDENT identity. In this instance, both systems perform a biometric comparison, however only one system biometrically verifies the fingerprints in both systems belong to the same individual.

The establishment of record links in NGI and IDENT will enable the retrieval of information using the link identifier as opposed to having to re-perform a biometric comparison. Authorized CJIS stakeholders may subsequently request additional information on linked records, such as photos. Authorized criminal justice IDENT users, for an authorized criminal justice purpose may retrieve the full criminal history record information from III based on an established record link. Authorized non-criminal justice IDENT users will receive notification of activity on linked records, but full criminal history information disclosure will still be dependent on provisions of the National Crime Prevention and Privacy Compact.

## **RECOMMENDATIONS**

**Option One:** For record linking/maintenance purposes, a search/record update will be sent to IDENT regardless of the CJIS stakeholder's request for an IDENT search.

**Option Two:** A search request will only be sent to IDENT when the CJIS stakeholder requests a search of IDENT.