The Federal Bureau of Investigation’s (FBI) Criminal Justice Information Services (CJIS) Division operates and maintains the Integrated Automated Fingerprint Identification System (IAFIS), which became the world’s largest person-centric biometric database when implemented in July 1999. Since then, advancements in technology and the changing business needs of the IAFIS customers have necessitated the next generation of identification services. To further advance biometric identification services, the CJIS Division, with guidance from the user community, has established the vision for Next Generation Identification (NGI).

The NGI system will be developed over a multi-year timespan and will be an incremental replacement of the IAFIS that provides new functionality and improves upon existing capabilities. This technology upgrade will accommodate increased information processing and sharing demands from local, state, federal, and international agencies. The NGI system will offer state-of-the-art biometric identification services and compile core capabilities that will serve as the platform for multimodal functionality.
Advanced Fingerprint Identification Technology (AFIT)

The AFIT objectives will enhance current fingerprint and latent processing services, increase the accuracy and daily fingerprint processing capacity, and improve system 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.

Disposition Reporting Improvements (DRI)

The NGI DRI capability will enable more efficient updates and provide a more complete criminal history repository. Anticipated increases in fingerprint receipts and the supporting disposition information prompted the development of a more streamlined method to transmit dispositions. These methods include modernizing the Machine Readable Data (MRD) process to allow the submission of dispositions via Compact Disc Read-Only Memory (CD-ROM). Future enhancements to the MRD process will include the use of Digital Versatile Disc (DVD), other types of standard media, and the Internet. A new Interstate Identification Index (III) Disposition Message Key has been developed, providing the capability to update an FBI Identification Record with disposition data via the III. Future disposition submission capabilities include submitting disposition data via the CJIS Wide Area Network (WAN) and a direct connection to Federal Courts.

Interstate Photo System (IPS)

The IPS 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.

National Palm Print System (NPPS)

The NPPS will create 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 and noncriminal justice agencies nationwide. This new capability will enable users to search latent palmprints obtained from crime scenes against a national repository, enhancing law enforcement’s ability to solve crime.

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.

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, to include iris, and provide administrative functions for special population files. As a new feature, a Rap Back Service will allow authorized contributors to enroll individuals and receive notification when selected activities occur against their records.