Biometric Identification System - BIS™

The Biometric Identification System - BIS™ is a modular and easy to use system that securely enrolls and identifies people using biometrics. Scalable and customizable **BIS™** provides the ability to choose a biometric technology (e.g. fingerprint, face, iris, signature, vein, among others), and provides a multi-biometric system (i.e. to identify users using a combination of different biometric methods), over a versatile infrastructure (land, mobile units, handheld terminals, etc.). All of this runs on the robust **BII™** architecture, which allows collected information to be shared across multiple applications.

BIS™ provides a set of functions that allow easy enrollment, identification, and extensive collection of biographical information of users:

- Support for multi-biometrics (fingerprint, facial, iris recognition etc.) from a variety of different manufacturers
- Maintain a strict log of data that has been entered in the system including enrolled users, and users that have been already identified
- Allow easy collection of extensive biographical information for operators
- Keep detailed information of administrators performing verification of users and controlling access to system data via a multi-tiered access scheme
- Provide detailed reports and activity logs of users and administration staff
- Securely store the data until it can be transferred off the system to a central server
- Flexible deployment on desktops, mobile systems, or hand held terminals devices for remote deployments
- One-to-one (1:1), one-to-many (1:N), Short List (N:M) identification modes
- Ability to convert any input data such as paper, single and ten-print optical scanners, and ink it into the required formats
- De-Duplication: – The ability to compare newly enrolled people against existing users to ensure that fraudulent enrollments get into the system

Verification

After enrolling the user, **BIS™** makes it easy to confirm their identity. **BIS™** uses a variety of methods to identify and verify the identity of someone.

There are two types of searches that can be performed.

- **Verification Search (1:1):** An operator can enter biographical information for the user in order to locate the specific record.
- **Identification search (1:N, 2:N, 4:N or 10:N):** This method will take a fingerprint and compare it to all other fingerprints in order to find a matching record. In order to minimize the amount of records the search is required to go through, the operator can also enter some combination of a biographical plus biometric trait.

Out of the two the short list search is the most efficient and utilizes less server resources.

Investigations

While **BIS™** makes it very easy to enroll new users, there is always the possibility for people to try and take advantage of a system through the easiest way: Through Operators.

In order to ensure fraudulent data is not in the system, **BIS™** runs has two methods of checking newly entered information is both unique and genuine. Both of these searches are run nightly to check new records crated during the day.

- **Biometric Duplication Search:** This search method takes each of the enrolled biometrics and compares them against all of the previously enrolled records in the database.
- **Biographic Information Search:** The second search takes the biographical information collected during enrollment and performs a comparison against text entered in other records.

In the Investigations area, results from both of these searches are displayed, and combined to allow investigators to remove fraudulent records as well as identify individuals who are perpetuating the fraud.

Reports

BIS™ provides a comprehensive report generation mechanism. The operator can generate a report for all registered users, verified users, and duplicate users (fraud attempts) by many other parameters including fingerprint quality, address parameters, etc.

Administration / Dashboard

BII™ keeps a detailed audit log of all activity that happens on the system and can be accessed from the main **BII™** system management module. This centralized management system also allows administrators to centrally configure all **BII™**-based applications.