Integra-ID is the next-generation Automated Biometrics Identification Systems incorporating NEC’s latest biometrics matching algorithms with a SOA to provide the flexibility and reliability required by law enforcement.

Overview

NEC is a biometrics pioneer holding a leadership position in biometrics matching technology since the 1970’s. Today, with more than 200 deployments in over 30 countries, NEC continues to be the leading provider and one of the largest market share holders of Automated Biometrics Identification Systems worldwide.

With its commitment to research and development (R&D), NEC continues to provide the most innovative and accurate algorithms validated by the National Institute of Standards and Technology (NIST). Working with NEC means accessing decades of biometrics expertise and technologies for optimal performance, accuracy and reliability.

At a Glance

- NEC’s latest matching processor for fingerprint, palmprint and facial matching
- Unified database for efficient searches
- Integrated workstation centralizes all functions of the Automated Biometrics Identification Systems
- SOA for fast and seamless integration with other applications and databases
- Dynamic workflow management enables simple rule-driven workflow modifications
- COTS solution supports a variety of standard hardware
- High availability options keep system operational
- Comprehensive reporting and auditing functions
- Advanced administrative and maintenance features

"Integra-ID [from NEC] is able to connect the dots of all the information coming from multiple sources - and fast."
- Charlie Eakins
  South Bend Police Department, IN
Efficient Collaboration

Integra-ID Data eXchange Framework (DXF) is an innovative application framework that offers capabilities including workflow management, transaction management, identification management and data exchange between different components within the Automated Biometric Identification Systems. By linking disparate applications, Integra-ID DXF enables information sharing from different data sources from different departments to provide an efficient and collaborative environment.

Integra-ID DXF Delivers:

- **Transaction Management** – allows workstations and other interface devices to interact with the Automated Biometrics Identification System using either legacy systems or modern communication protocols, such as Web services or XML, which extends identification functionalities.

- **Data Exchange Interface** – allows third-party applications to link with the Automated Biometrics Identification Systems to exchange information; also allows interfaces with external subsystems like CCH/RMS, State/County AFIS and FBI AFIS.

- **Identification Management** – manages NEC’s fingerprint/palmprint/facial matcher or other third-party biometrics matching systems to provide true multi-modal capability.

- **Dynamic Workflow Management** – ties all the above components to provide a customized and configurable workflow engine that can be easily managed at the user level. The Workflow module offers manageability in the law enforcement environments that need variations in business rules, data flow and operational procedures.

Accurate Fingerprint/Palmprint Matcher

NEC’s latest matching processor uses multiple algorithms to dynamically manage processing of facial, latent, palmprint and tenprint records. With multiple matching algorithms, Integra-ID is able to increase the matching accuracy and speed.

An important identification advancement with the Integra-ID solution is the VRP (vertical ridge patterning) function, which automatically extracts the key elements of the fingerprint to search. VRP handles the whole process of preparing the print image, including cropping, zoning out parts that are not good, marking minutia points, and setting the core. VRP saves personnel painstaking hours of manually editing and marking prints.

Integrated Workstation

All functionalities required to process manual and automated facial, tenprint, palmprint and latent records are integrated, providing a unified user interface for all functions of the Automated Biometrics Identification Systems.

- Intuitive user-configurable graphic interface makes it easy to use with minimal training
- User preference management is customizable to simplify use
- Ability to quickly move between applications
- Multi-processing capability allows multiple users to perform different functions on a single job
- Enhanced tenprint processing enabling automated correction of common quality-related errors
- Enhanced latent imaging and charting functions
- Automated latent processing, saving time and reducing manual errors
- New image processing controller with enhanced imaging functions

Unified Database

Integra-ID uses a unified database schema capable of storing structured AFIS image data, NIST archive data, feature sets and documents including court papers, incident reports, rap sheets, search warrants or any investigative documents. Digitized documents can be stored in the unified database to provide a single repository for search, viewing and analysis.

The Integrated Archive System uses a unified database schema as a base. Integra-ID Archive has a meta search client installed on the workstations. The meta search client allows comprehensive, intelligent, drill down search capability on the unified database. Users are able to query the database with an event or by using free text search with a wildcard feature. Integra-ID Archive client also allows viewing and printing of fingerprint cards, palmprint cards, mug shots and documents.
Service-Oriented Architecture (SOA)

Built on a SOA, a standard-based architecture that provides greater flexibility, Integra-ID enables communications between disparate applications with minimal development efforts. It also enables fast and seamless integration with other agencies’ applications and databases.

Dissimilar applications can communicate through pre-defined communication protocols, such as Web services and XML. Integra-ID permits other solution vendors to make changes to their products without affecting the integrity of the overall system. Similar components within Integra-ID framework can be upgraded with ease.

The SOA offers ease of manageability and deployment. Through this design, Integra-ID can scale easily when additional resources are added without requiring significant changes to the overall system. The system can be linearly scaled by adding additional transaction controllers, matching resources, storage or workstations.

Rule-Driven Dynamic Workflow Management

Integra-ID is highly flexible and fully customizable to meet law enforcement agencies’ operational requirements and business processes. Its framework offers dynamic workflow management capabilities that allow rule-driven workflow execution without having to update the entire system.

The dynamic workflow management function also enables law enforcement agencies to change workflow in the production environment without interrupting system operations. It can be integrated effortlessly with third-party applications. The workflows can be easily configured to achieve full lights out or semi lights out operations depending on the business needs and available resources.

Availability

Integra-ID can be configured for both high availability clustered environments and disaster recovery. In a disaster recovery configuration with sufficient network bandwidth, the system components can be distributed over different geographical locations to maintain operational continuity. Alternatively, the system can be configured to work as an active-active full duplex system, allowing an agency to also utilize the standby system resources during normal operations.

Administration & Maintenance

Advanced administrative and maintenance features (Global Admin) in Integra-ID allow system administrators to access the system and perform database and user maintenance. For added security, special logon credentials are required to perform administrative functions.

COTS-Based Solution

A commercial-off-the-shelf (COTS) solution, Integra-ID is designed to support a variety of industry standard server and workstation hardware that meet minimum system specifications. As a result, there is no need to purchase special hardware. The COTS solution approach provides flexibility and scalability in deployment, reduces costs, allows easier upgrade paths, and enables IT departments to better plan and manage hardware resources.

Our Commitment

NEC, a recognized industry leader in biometric technologies, has developed some of the first and finest automated methods of identification. We deliver the best and most advanced biometric solutions for law enforcement, government, civil and commercial applications. NEC’s matching algorithms meet and exceed the highest current government standards in identification technology, and provide unparalleled accuracy, open system platforms, high capacity and integrated solutions.