Integra-ID® Automated Biometric Identity Service

Overview

NEC’s Integra-ID® Automated Biometric Identity Service (ABIS) provides forensic examiners, records and identification technicians, and crime analysts with multimodal biometric search and storage services. Designed for accuracy and speed, data and transactional archiving, and auditing and reporting, all with cloud hosting capabilities. Integra-ID is backed by a comprehensive range of tools for editing, selection, image enhancement, comparison, and verification. Modern Windows workstations capture, enroll, and submit fingerprints, palm prints, and latent prints, as well as faces, irises, and signatures for multiple identity verification, investigation, and intelligence use cases.

System Description

NEC’s Integra-ID ABIS is an enterprise multi-service and tiered architecture software solution that enables all users—from workstation operators to managers and system administrators—to enter, submit, and review multimodal biometrics. It is powered by dynamic middleware for communication, computation, infrastructure, platform, and technology services. Integra-ID’s middleware provides extensible, open, and scalable workflows with intelligent decision logic and multiple branches. Specific product components include:

**NEC Digital Platform (NDP):** A platform that provides a unified experience for a variety of services and transactions by using a unique, multi-factor Digital ID based on biometric authentication and AI technology. NDP streamlines both physical and digital identities into a secure, privacy-driven ecosystem for a seamless, secure, personalized, and intuitive customer experience.

**NEC Matching Service (NMS):** A customer-proven software solution that provides scalable biometric matching services for fingerprint, palm print, iris, and face matching. NMS is configurable for either on-premises or cloud hosted environments and does not depend on proprietary hardware for its scalability or performance. NMS provides extraction, identification, verification, investigation, biometric matching, and fusion services using the industry’s most accurate forensic-quality algorithms.

**Unified Database (UDB):** Provides a centralized data repository for information within the ABIS. Information stored within the UDB includes structured ABIS image data, NIST Archive data, FBI EBTS transactions and responses, feature sets, mugshots, and a full range of documents, such as court papers, incident reports, rap sheets, search warrants, or any investigative documents. Digitized documents can be stored in the UDB to provide a single repository for search, viewing, and analysis.

**Integrated Biometric Workstation (IBW):** A suite of linked applications that provides a full range of ABIS user functions, including the ability to browse records, view and manage job/transaction queues, enter tenprint cards, manage latent cases, perform quality control and image editing, and verify search results.

**Insights Archive and Workbench:** Supplemental middleware for records management and system administration management functions, all available through secure web browser applications.
Summary System Compliance Specifications

- FBI CJIS EBTS, Version 11
- FBI CJIS Security Policy, Version 5.9
- FBI CJIS WSQ, Version 3.1
- ISO/IEC 17025:2017 – ACE-V
- ISO/IEC 9075 – Database languages – SQL
- Microsoft UWP and WinUI Best Principles
- NIEM Metamodel and Common Model Format, Version 5.1
- OSAC 2021-N-0020 – BPRs for Limited Examinations
- W3C XML Markup Language and File Format

Feature And Benefit Takeaways

**Accuracy and Speed:** NEC systematically integrates the latest forensic level of biometric image processing and matching algorithms in new product releases, allowing customer agencies to benefit from the latest advances in NEC global research and technology.

**Connectivity and Interoperability:** Thanks to its highly scalable service-oriented and microservices architecture, the Integra-ID ABIS can be easily connected to third party systems, such as other AFIS/ABIS systems, booking stations, or mobile terminals. The Integra-ID ABIS suite includes a gateway system for automated protocol translation and system interconnection.

**Economy, Efficiency, and Effectiveness:** Workstation users can choose between different verification processes, depending on the type of crime. Part of this process can be automated for minor crimes, whereas major crimes can be processed entirely by a forensic expert.

**Multimodal Biometric Capability:** The Integra-ID ABIS supports multiple biometric modalities, including fingerprints, palm prints, faces, irises, and tattoos. Its modular architecture can be configured to achieve the desired combination of biometric modality support for each unique deployment.

**Cloud Reliability:** Hosting Integra-ID in the Azure cloud provides a stable, resilient and cost-effective environment for all your ID services. The entire suite of Integra-ID technology will be deployed and managed by NEC, leaving agencies more time to manage local ID operations.