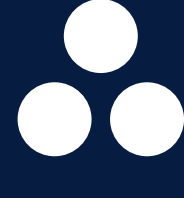


Biometric Platform for ID Issuance



Case Study

Multi-Tenant Biometric ID Platform Transforms Healthcare in Congo

Ministry of Social Affairs of the Republic of Congo

Accurate targeting of healthcare payments | Reduced costs for government agencies

In many African countries, secure and equitable access to healthcare remains a major structural challenge. In the Republic of Congo, a universal health insurance scheme required more than just a policy. It demanded a system that could identify each person quickly, reliably, and only once. To deliver services effectively and prevent fraud, the government needed a trusted way to verify identities across both healthcare and social protection.

The Need for a Secure, Interoperable Identity Infrastructure

- **Eliminate** duplicate enrollments and fraudulent claims
- **Secure the** new healthcare scheme with a **biometric system**

Congo already had a national identification system, but it wasn't built for the health sector. Its limited interoperability and slow rollout pushed the Universal Health Insurance Fund (CAMU) to have its own database to meet its objectives. The priority was clear: verify identities in real time at the point of care, prevent fraud, eliminate duplicate records, and ensure that only eligible individuals received services.

CAMU needed to verify identities directly at the point of care. The National Social Security Fund (CNSS), responsible for social security services, faced a similar challenge. Both institutions serve overlapping populations and initially considered building separate systems. They required a solution with a biometric ABIS, designed to meet their unique needs while maintaining data control and operational independence.

Developing a Multi-Tenant ABIS for Secure Identity Checks

- **Identity verified** at service points using fingerprint match
- **One ABIS** for multiple agency tenants

Congo implemented a multi-tenant ABIS developed by Innovatrics, with Akieni as system integrator. The system supports fingerprint and facial recognition. The aim is to share this resource between CAMU and CNSS. Each agency shall then operate as a separate tenant, with a unified enrollment and verification interface. While CAMU runs on a private cloud, CNSS instead operates from on-premise servers.

The deployment at CAMU began with pensioners and private-sector workers, and continues to expand across other groups.

The enrollment is based on document validation and biometric capture with centralized duplicate checks, without relying on the national ID database. Each enrollee receives a unique identifier, with their fingerprint used for online verification at healthcare facilities.

A Smarter Way to Deliver Government Services

- **Real-time identity checks** speed up access to services
- Shared ABIS means **lower** setup and maintenance costs
- **Offline** fingerprint verification extends reach

Congo has a shared multi-institutions ready system. The system features a unique centralized biometric database, giving each participating agency separate access while sharing a common interface for enrollment and verification. Tens of thousands of individuals have already been enrolled, with a target of 3.5 million for CAMU. The centralized biometric checks help reduce fraud and eliminate duplicate records.

Using a unified platform, CAMU and CNSS can optimize IT costs and avoid building separate systems. The project also introduced a more open approach to digital governance in social protection, with both institutions managing their data independently while benefiting from a common infrastructure. Biometric cards with embedded fingerprints, planned for 2025, will enable offline verification and further extend access in remote areas.

Case Study Highlights

- **Centralized, multi-purpose biometric database** serving multiple institutions
- **Accurate identity verification** prevents ghost beneficiaries from accessing services
- More efficient use of public funds through **better targeting of healthcare payments**
- **Optimized IT investment** reduces costs for government agencies

Designed for Real-World Use

The ABIS is built for frontline operations. At healthcare service points, staff scan a citizen's fingerprint and confirm their identity in seconds. The system blocks duplicate entries at enrollment and ensures that each person receives only the services they qualify for.

Modular Design with Tailored Enrollment

Innovatrics' biometric platform goes beyond ABIS. It includes modular components that make it possible to build a complex solution with customized enrollment. The system was built to scale, not just in user numbers but in features.

Why Multi-Tenant Architecture Matters

In Congo, this setup offers a strong opportunity for CAMU and CNSS to collaborate without compromising privacy or governance. They share infrastructure but operate independently — resulting in lower costs, faster onboarding, and a path to expand services to more partners in the future.

The multi-tenant design is a game-changing approach that breaks down silos and fosters cross-agency collaboration, enabling the delivery of solutions without compromise. The modular architecture makes it easy to tailor enrollment to each institution's specific needs and timelines within a unified system. Innovatrics provided outstanding technical support throughout, helping us ensure the ABIS met real-world needs from day one.



Jean Paul Tshikaya
Presales Manager

About Us

We are an independent EU-based provider of multimodal biometric solutions. Our algorithms consistently rank among the fastest and most accurate in fingerprint and face recognition. Since 2004, we have partnered with all types of organizations to build trusted and flexible biometric identification solutions. Our solutions are being used in more than 80 countries, benefiting more than a billion people worldwide.

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