

# KYC FOR COMPLIANCE MADE EASY



#### 📴 BioSmart

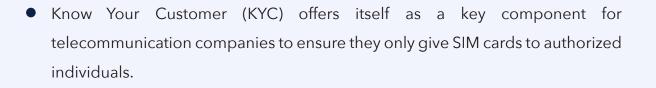
## Soothing the biggest Pain Points of Businesses across Africa

Across the world, telecommunications companies face similar challenges in implementing KYC compliance requirements to enable them accurately and quickly identify their customers. They need the right answers to certain questions like these:

- Do our customers feel safe releasing sensitive information?
- Are we vulnerable to malicious infiltrations from third-party systems?
- Do we tick the boxes for every identity compliance regulation?
- Is our data up to par with the highest standard of quality?
- How strong is our digital ID verification process?

Ever-changing regulations, limited adoption of KYC platforms, poor quality of data, and more constitute major reasons why telecommunication companies ask these questions.

### Do you know?



- SIM registration is the first line of defence for telecommunications companies against money laundering, fraud, terrorist financing, and other cellphone-related crimes.
- The idea of telcos having a database of the information of individuals comes with many benefits, yet many risks; the reason regulations are mandated is to ensure that identities captured maintain the required level of acceptance for any data capture (KYC) operation, including text, fingerprint, and image capture.
- A full-blown KYC process with regulatory compliance at the forefront aims to take identity verification more seriously so that crimes like identity fraud are difficult to commit by any individual but compliance seems to remain a challenge for a lot of Telcos in the African continent.

## The Challenges of Biometric Identity Registration

**Telecommunication companies** and governments are faced with major challenges when it comes to biometric data capture. Some of these are;

#### Lack of Robust Systems

A number of organizations conducting biometric registrations do not have a robust system in place for the end-to-end collection of all kinds of biometric data.

#### Meeting KYC/Identity Management Regulations

In the presence of the above, organizations are often faced with finding a system that helps to meet all the standards set by regulatory bodies for identity management.

#### Limited Reach During Enrolment

The inability to capture data on mobile in an age of financial inclusion limits the reach of project owners during biometric capture.

#### Data Storage & Integration Issues

The existence of (citizen) data in silos and lack of integration among all government databases makes it difficult to achieve a more secure ecosystem for the country as a whole.

#### Poor Data Quality

The quality of data (images, fingerprints, and other ID documents) provided by users is poor and does not meet the minimum requirements for a successful data capture operation.

#### Inadequate Operations Management

There are often no central management systems for controlling and monitoring all operations happening during biometric registrations. Data capture devices, for instance, can get lost easily as a result of this.

#### Fraud and Identity Theft

Fraud such as impersonations and identity theft are some of the risks organizations are exposed to simply caused by the lack of good identity management systems.

## How Can Telcos Ensure 100% KYC Compliance During SIM Registration?

#### • Robust Solutions for Compliance

Standards for KYC are often set based on current realities and to tackle them quickly, there is a need for a solution that can help your Telco keep up with this pace. Adopting a platform for ID/KYC compliance, whose purpose is to achieve this, will go a long way in mitigating the issues related to compliance as experienced in most organizations today.

#### End-to-End Verification Process

Over time, people have found it easy to manipulate systems by providing invalid means of identification. This is mostly because there's no mechanism for biometric validation. Verification of customer identity should happen in real-time, from textual information to live images. In reality, a facial match of the image in an ID card should be done against an individual's live features to be sure that they are who they say they are. An end-to-end biometric verification process on KYC compliance, each business has its own rules on which the system has been built upon. The ideal platform would have inbuilt verification and validation rules that support quality checks of all data types - text, pictures, and fingerprints.

#### • Extra Security with Liveness Detection

Telcos can firm up security through liveness detection to ensure that it is impossible to capture a picture of a picture (Non-Live Images). In the African ecosystem, this can often occur within field agents who have malicious intentions of beating the system. Liveness detection leverages the 21st-century power of Machine Learning to detect the liveness of an image at the point of capture, in a bid to prevent spoofing attacks with ID. With this, it is easy to ascertain that a real person did pose for that picture in real-time.

#### Integration to National Databases

The best KYC platforms are those that can perform a double check on identities provided by cross-matching them against what exists in trustworthy government databases. This way, you can be completely sure that an end-user has provided uniform data. The ripple effect of this can also be found in the speed at which KYC registrations are conducted across the board, which is a very important aspect of any identity enrolment project.

## **BioSmart; The Smart SIM Registration and KYC Solution**

We present the KYC tool tailor-made for organizations with a focus on biometric registration to efficiently capture necessary demographic and biometric data from individuals, with several levels of verification, authentication and pre-set modifications happening in the backend to ensure that the data conforms with the highest standard of quality.

The adoption of BioSmart comes with a lot of value to Telcos and has been proven to deliver on these for multiple biometric projects across Africa, while meeting all the stipulated regulations for KYC enrolment, from text to images and fingerprints.

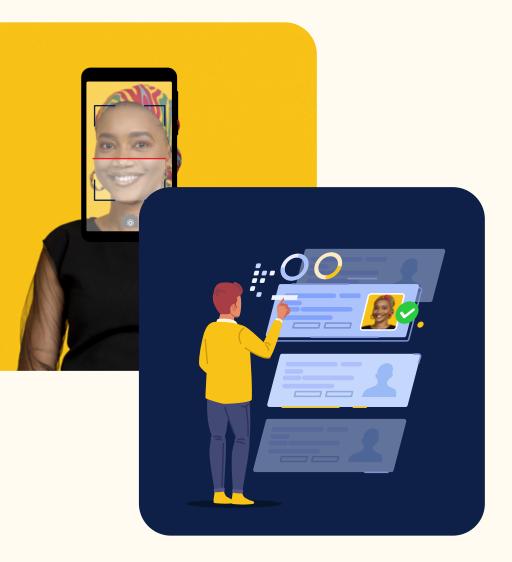
### **BioSmart; The Smart SIM Registration and KYC Solution**

- Faster customer onboarding & acquisition
- Bulk registration & re-registration of SIM cards
- Faster SIM activation and turnaround time
- Successful offline capture & registration
- Airtime & Data Vending

- Regulatory compliance with quality checks and Al anti-spoofing tech
- Agent, device & operations management on a single platform
- Better customer engagement, experience, and retention
- Biometric SIM Swap using fingerprint validation

## **BioSmart for Data Capture & Identity Management**

Large organizations and government parastatals that are focused on identity management for the effective running of day-to-day activities will find the BioSmart platform very valuable. It is a KYC system that enables these establishments to conduct end-to-end biometric registrations while meeting all the regulations for identity enrolment, from text to images and fingerprints.



## **BioSmart for Data Capture & Identity Management**

The adoption of BioSmart comes with a lot of value to organizations and has been proven to deliver on these for multiple biometric projects across Africa. Here are some of the key values that BioSmart offers its users.



Integration to national databases for authentication



Data integrity and regulatory compliance via built-in validation rules



Contactless biometric acquisition and authentication



Multiple registration channels, including web and mobile





Faster customer onboarding through business process automation Real-time verification of customer information and documents, thereby reducing fraud



Dynamic configurations on the system to suit business and regulatory requirements



Liveness detection to prevent picture-of-picture capture by agents with malicious intentions



Face match to verify the identity of subscribers using facial match to verify the faces of end-users in real-time, to ascertain that the faces and the images match



Offline Biometric Registration



Customer Document Management



Background cleanup to adhere to strict KYC regulations on captured images to ensure that all images captured conform to stipulated background-uniformity requirements



Self-Service SIM Dispensing



Device Lifecylce Management Systems



Interactive & intuitive graphical user interface (GUI)



End-to-end management of capture agents in different locations



**Face Matcher Engine** to verify the identity of subscribers using facial match.

**eSIM** for digital SIM registration and activation.

**AFIS** to verify the identity of subscribers using fingerprints and identifying duplicates in the database.

**SIMROP** the administrative Portal for managing all Registration operational activities.

### The BioSmart Ecosystem

**Applications** to register subscribers. Supported on Windows, Android and Web.

**BioKozuna** to re-validate captured subscribers' data to ensure it is compliant with regulatory rules and standards.

**SDP** to process and save captured subscribers' data.

**BioExporter** to generate and export data in XML format.

**GeoTracker** to track the location of all devices running BioSmart.

**Reporting & Analytics Engine** to access various types of reports and analytics.

**MicroServices** provides all required services to BioSmart.

**CRM** for customer lifecycle management.

**SMTP** to manage emails to be sent to subscribers.

**SMSC** to manage SMS to be sent to subscribers/users.

**VAS** to manage Value Added Services offerings integration e.g. airtime and data vending.

**Provisioning System** to provision and activate subscribers' data.

## Features of 📴 BioSmart



#### **Digital Signatures**

This enables the agent to collect the signature of a customer by signing directly on the touch screen of the device (if it has one) or on a signatory pad.



#### Face to ID Match

The BioSmart application is able to carry out a facial match/comparison of the images on biometric ID cards against the face of end users in real-time to ensure that they're true owners of the ID provided during capture.



#### **Liveness Detection**

In order to prevent fraudulent cases of 'Picture of Picture' captured by agents with malicious intentions, the BioSmart application has in place a Machine Learning Model capture of detecting the liveness of an image.



## Biometric Capture & Validation (Picture and Fingerprint)

Beyond ordinary capture, the platform enables agents to validate customer data, including text, fingerprint, and image. These validations are done based on configured business rules. BioSmart is compatible with in-built or external cameras.



#### **Background Clean-Up**

The background clean-up feature makes it possible for the BioSmart application to analyze the background of an image, carefully crop out the non-uniform background and impose a plain white background without impacting the picture of the user.



#### **Push Notifications**

With the BioSmart Push Notification feature, an agent is able to receive targeted instructions from the administrative staff managing the biometric registration exercise via push notifications on his/her device.



#### **Offline Registration**

The BioSmart KYC provides an offline capability that makes it possible to capture individuals in remote areas with poor network coverage.



## Deduplication of fingerprints to check for uniqueness

BioSmart has a deduplication (N:N) engine that is able to scan through fingerprint images in its database and flag duplicates. With this feature, it's possible to know unique identities via their biometric identity.



#### **Over-The-Air Update**

The OTA feature enables automatic download and installation of the latest versions. This feature is supported on both the Android and Windows components.



#### **OCR (Optical Character Recognition)**

The BioSmart OCR feature facilitates the extraction of customer details from a physical form or ID document and populates the fields automatically on the digital platform. This feature makes customer onboarding faster.



#### **Role-Based Access Control**

For security reasons, the BioSmart platform operates a robust role-based Access Control feature that ensures that all accessible features or functionality on the system are role-based.

## **Operations Management on BioSmart**

The SIM Registration Operations Portal (SIMROP) is a component of BioSmart and a robust management portal that is responsible for the management of all data capture activities of agents & admins, as well as the tracking devices & kits used across the biometric project.

## Here are some of the core features of SIMROP.



#### **User Management**

This module is used to manage user account creation on the BioSmart KYC Suite. Activities in the module include user account creation and update, user account activation and deactivation, password reset, and account unlocking. All users of BioSmart KYC Suite are required to have an account created on SIMROP before they can interact with any component of the BioSmart suite.



#### **Agent Management**

With SIMROP's mapping ability, capture devices are easily assigned to each agent and in the future can be identified based on the ownership status of each device.



Capture devices can be whitelisted or blacklisted as the case may be. Blacklisting can occur in the case of fraudulent activity by a device and hence, its deactivation. The device can only operate again when the relevant administrator whitelists a device from the system.



#### Analytics

SIMROP includes a dashboard that can be accessed by agents and stakeholders for a full view of captured data and registration analytics at every point in the project. This information can be accurately presented in various chart formats.

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#### Geo-Tracking

The GeoTracker feature facilitates the management and control of device activities from a central location to avoid the loss of devices. From a map, agents can tell the current status of a particular device.



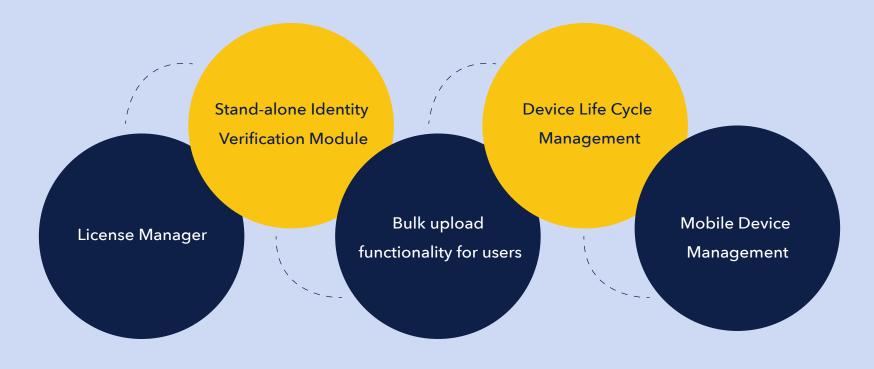
#### **Issue Log Management**

This feature enables agents to report device or agent-related issues and get quick feedback on resolutions.



The reporting feature enables you to generate reports in various formats (Excel, CSV, PDF, etc.) which can be used for improved decision-making.

Other core features of the SIMROP includes;



## **SIM Registration Solution Case Study & Success Story**

#### **CASE STUDY 1: MTN**

#### **Biometric Registration & Seamless SIM Registration With Compliance**

#### **The Challenge**

To meet the national regulatory requirements for KYC, a dominant player in the Nigerian telecommunication space, needed a robust identity management solution for the end-to-end capture of its subscribers.

#### **The Solution**

Seamfix was invited to save the day and within an extremely short period, rebuilt and upgraded massively, the biometric registration suite and went live helping avert further sanctions to the tune of over 12 (twelve) billion USD!

The BioSmart platform was implemented to capture and validate biometric identities/ records in real-time. Within 6 days, we delivered the solution and subsequently drove its implementation nationwide, while maintaining strict compliance with regulatory standards. A key achievement was the implementation of this solution within a short timeline.

Seamfix demonstrated flexibility and adaptability by deploying fully to ensure the mission-critical requirements of the Telco were met and in time too.

Today, beyond helping the Telco avert further sanctions from the Nigerian Communications Commission (NCC), Seamfix continues to simplify mobile SIM registration and KYC compliance, ensuring telecommunication companies and law enforcement agencies can identify mobile phone SIM card owners, track criminals who use phones for fraudulent activities and ultimately help service providers know their customers better. Through this platform, this Telco acquired over 70 million Subscribers.

### CASE STUDY 2: Airtel

#### **Biometric Registration & Subscriber KYC**

#### **The Challenge**

To conduct seamless KYC and biometric registration, a leading telecommunications company with operations in 20 countries across Asia and Africa (Headquartered in New Delhi, India, the company ranks amongst the top 4 mobile service providers globally in terms of subscribers), needed a functional solution for complete biometric registration of its subscribers.

#### **The Solution**

The BioSmart platform was implemented for subscriber KYC and Biometric Registration. We provided a suite of 5 products - KYC SmartClient, KYC Server, KYC Manager, KYC Droid and KYC Live, that when deployed together in an integrated environment, work to deliver the best value Biometric Registration and Customer Profiling services for the telecoms operator. Just 3weeks after awarding the Biometric Registration contracts to Seamfix, the systems were successfully deployed in advance of the Nigerian Communications Commission (NCC) go-live dates.

In addition, after the go-live date of previous implementations and without interruption to the system, Seamfix accommodated

changes to process flows after the system was implemented. While such changes typically occur prior to the go-live date, Seamfix engineers were able to support these changes with no unnecessary system downtime and most importantly, with no financial impact on the business.

This telecommunications company is the first operator to launch and implement the KYC system in Nigeria. Through this platform, this Telco acquired over 45 million Subscribers.

#### **CASE STUDY 3: 9Mobile** Biometric Registration, Record Analysis & Quality Check Validation

#### **The Challenge**

Following compliance feedback given by the Nigeria Communications Commission (NCC) to a dominant Telco on the compliance level of some of the subscriber records, Seamfix Limited was consulted to bring in her wealth of experience to analyze some of the Telco subscriber records to confirm how many of the records meet the expected regulatory compliance level in line with defined standard requirements.

#### **The Solution**

Seamfix was able to validate the quality of the portrait and fingerprints using its AI/ML-powered quality check validation engine to confirm if the already captured pictures and fingerprints meet certain standards. At the end of the exercise, Seamfix was able to deliver a concise report to this Telco highlighting the level of exposure and compliance level, with detailed recommendations on what should be done.

## **CASE STUDY 4:** Globacom Biometric Registration

#### **The Challenge**

Following a strong bidding proposition with a bunch of other top global companies, Seamfix won the Bid to provide a leading telecommunications company with Biometric Registration, this came after the Telco noticed that most of her already captured customer data didn't meet the required regulatory standards set by the Nigeria Communication Commission (NCC), the regulatory body of Nigeria.

#### **The Solution**

Seamfix empowered this Telco with biometric registration of their customers and re-registration of existing customers with poor biometric information. Through this platform, this Telco has acquired over 15 million Subscribers. This solution is still in use today with consistent updates and support provided to this Telco.

#### **Value Proposition**

BioSmart, as a robust solution for Telcos, has ensured telecommunication companies and law enforcement agencies are able to identify mobile phone SIM card owners, track criminals who use phones for fraudulent activities and ultimately help service providers know their customers better. The platform also includes value innovations that could potentially increase the Telcos' revenue streams.

By going digital with BioSmart, these telcos are able to record and verify mobile phone numbers and personal information of subscribers, such as photographs, name, date of birth, gender, address, details of valid identification documents, etc. faster and even more seamlessly.

Managing a device catalogue of over **50,000+** registration kits in different locations nationwide.

#### 100M+

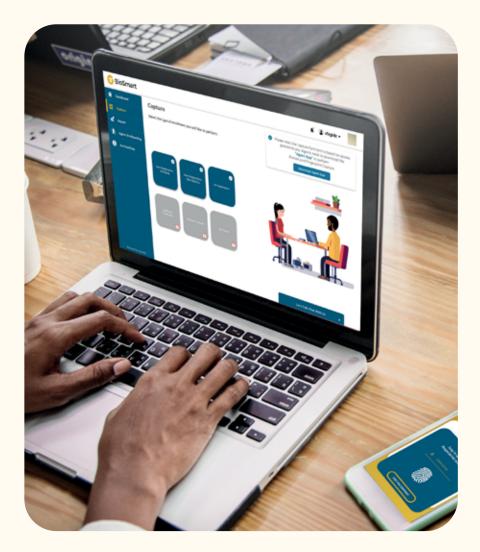
SIM registrations done so far and at an average of 1.8M biometric registrations per month.

#### 800,000+

(1 Day) subscriber records are captured with their data synchronized and their mobile lines activated for calls. In the telecommunication sector, we have worked with and implemented mission-critical solutions for the largest telecommunication companies in Africa.

We have designed and implemented our unique KYC solution tailor-made for organizations like yours to efficiently capture necessary demographic and biometric data from subscribers, with several levels of verification, authentication and pre-set modifications happening in the backend to ensure that the data conforms with the highest quality standards.

Now your organization can seamlessly conduct end-to-end biometric registrations while meeting all the regulations for SIM registration and identity enrolment, from text to images and fingerprints with the **Seamfix BioSmart Solution!** 



## **About Seamfix**

#### Who We Are

We are a people and software development company. We call ourselves **Seamfixers!** 

#### What We Do

Most organizations want to easily acquire and service a lot of customers digitally but struggle with complex processes. We help by seamlessly automating these processes so that they can be more productive, make customers happy and boost revenues.

#### **Our Vision**

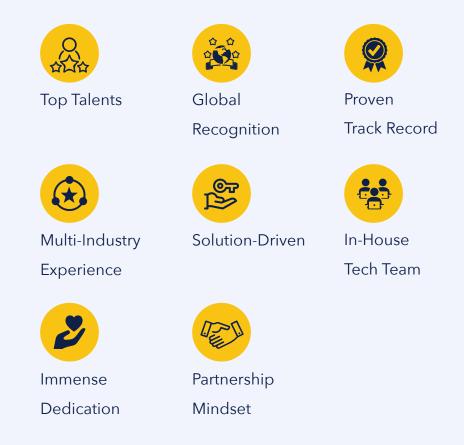
**Satisfaction** in **high quality service experience** between all organizations and their customers.

#### **Our Mission**

To **improve** the way organizations work by **digitizing the processes** between them and their customers to **deliver satisfaction** and a **higher quality of life** for all.

#### **Our Goal**

To be the technology partner of choice for thousands of global organizations on their journey of digital transformation for business growth and customer satisfaction.



### **Contact Us**



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