FEDERAL REPUBLIC OF NIGERIA
NIGERIA DIGITAL IDENTIFICATION FOR DEVELOPMENT PROJECT
TERMS OF REFERENCE
BIOMETRIC ARCHITECT

1. BACKGROUND

Of the 187 million living in Africa's most populous country, only about 30% have had their births registered - this figure drops to 19% in rural areas and to 7% within the poorest quintile of the population. Less than 50% of residents have any form of ID card, whilst only 9% of individuals have a national ID number (NIN). Based on the Global Findex Survey[1] results of 2018, 33% of those who do not have ID cite that it is too difficult to obtain, whilst approximately 20% cite a lack of supporting documentation.

Nigeria hosts a fragmented ID landscape which incurs significant costs on the Federal Government (FGN). Over 13 government agencies (National Identity Management Commission, National Population Commission, Central Bank of Nigeria, Independent National Electoral Commission, Nigerian Communications Commission and others) and at least 3 state agencies offer ID services in Nigeria. Many of these agencies, capture biometrics and issue ID cards independently without data links with other systems, resulting in duplication and sub-optimal utilization of scarce resources.

The FGN has indicated a strong desire to harmonize the existing identification ecosystem towards developing a foundational identification platform which can be leveraged to improve service delivery. Based on completion of an initial identification ecosystem diagnostic in July 2016, the Vice President convened a workshop of all identification stakeholders in December 2016 which confirmed the need to develop a Strategic Roadmap[2] charting the way forward. The Strategic Roadmap was then prepared with the support of the World Bank Group, and highlighted the need for a minimalist, foundational, and eco-system-based approach to identification in the country. The Roadmap was endorsed by the Harmonization Committee at a second Vice Presidential Level Workshop attended by over 200+ identification stakeholders on January 31, 2018; the group moved to submit the Roadmap to the Federal Executive Council for final government endorsement.

Consequently, the FGN applied for a credit from the World Bank and intends to apply part of the proceeds of the credit to increase the number of persons in Nigeria who have government-recognized proof of unique identity that enables them to access services. The Project will be implemented by the National Identity Management Commission (NIMC) based in Abuja, Nigeria. NIMC, through the Federal Ministry of Finance, has obtained a Project Preparation Advance (PPA) to enable it finance preparatory activities for the Project. Some activities shall be retroactively financed by NIMC prior to approval of the PPA.

[1] World Bank Global Financial Inclusion (Global Findex) Database

[2] A Strategic Roadmap for Developing Digital Identification in Nigeria: Draft Report for Review, June 2017

2. OBJECTIVES OF THE ASSIGNMENT

- Defines the requirements for the biometric capabilities within the enterprise
- Defines capture requirements (modality, environment, SOPs etc.)
- Ensures compliance of suppliers of biometric capture technology
- Defines matching requirements
- Ensures compliance of suppliers of matching technology
- Assures suppliers comply with biometric requirements

3. SCOPE OF SERVICES

The Biometric Architect shall:

1. Develop the technical biometric capturing requirements that would guarantee 100% success, based on the needs and objects of the ID4D project in Nigeria;
2. Provide input in the biometric capturing plan following detailed analysis on the different modalities of solutions (iris, face etc.) and then make appropriate suggestions for the Nigerian environment;
3. Recommend best-practice biometric capturing methods via which **all** Nigerians will be captured in a cost-effective manner;
4. Ensure biometric capturing plans are aligned to Nigeria's environment and are capable of capturing required details of all individuals;
5. Ensure biometric technologies to be used are efficient for large scale biometric capture;
6. Ensure biometric technologies allow for interoperability and efficient sharing of data across the ID ecosystem;
7. Ensure appropriate technologies are present at ID Ecosystem partners for facilitation of biometric data sharing;
8. Ensure biometric technologies do not violate any security or data regulations;
9. Ensure technical problems encountered during biometric capturing are quickly resolved;
10. Provide input in the review and approval stages of the Contractor's Biometric capturing Plan;
11. Serve as a technical liaison between the contractors and the ID4D team;
12. Monitor progress in implementation of the project's biometric capturing plan;
13. Prepare progress reports on implementation of the project's biometric capturing plan;
14. Carry out any other relevant periodic duties that may be assigned by the NIMC Project Implementation Unit (PIU) Technical Lead.

4. REPORTING, LOCATION AND TIME SCHEDULES

The Biometrics Architect will report to the Technical Lead in NIMC Headquarters Abuja.

The commencement of the services shall come into force and effect on the date (the "Effective Date") of the Client's notice the Biometrics Architect to begin carrying out the services.

5. QUALIFICATION OF THE BIOMETRICS ARCHITECT

The Biometrics Architect shall have the following minimum educational qualifications and experience:

- 5 years' experience working with biometric technologies
- Expertise in multi-modal biometric capture technologies (e.g. facial, fingerprint, iris)
- Expertise in biometric matching technologies (e.g. ABIS)
- Experience in the use of biometric technologies in the field including challenging remote environment
- Experience defining system architectures & performance requirements in support of biometrics; and analysing existing or proposed architectures for applicability and suitability
- Experience analysing system performance of biometric tools in terms of project goals and end user needs; and system performance in terms of capacity and throughput
- Experience defining operational and functional and technical approaches for interfacing with other biometrics partners, including proposed interfaces, multiple network considerations, data quality, and data processing in terms of capacity and throughput and biometric tools
- Experience recommending approaches to improve identity assurance processes through improvement of biometrics capture and matching technologies
- Relevant degree in IT Engineering, Computer Science, or a related field
- Experience in working for any international donor-funded program will be considered an asset
- Experience in projects involving multiple partner institutions will be considered an asset
- Fluency in written and spoken English. Local languages are an asset

6. DETAILED SKILLS AND EXPERIENCE

Area	Description
Identify biometric requirements	Ability to define and develop biometric requirements based upon the unique nature of different environments, the use cases. Defines the standard operational processes for biometric capture in line with the core use cases and exceptions (for instance enrolling children).

Business requirements	Able to interpret complex business and technical requirements. Can identify and recognise a viable solution or controls to issues. Understands and links complex challenges in the enrolment environment and translates them into architectures, requirements and procedures.
Define modality requirements	Experienced in defining solutions across different modalities (face, fingerprint and Iris). Able to determine the optimal modality for the use case and environments.
Experience of ABIS	Experienced in biometric matching at population scale, for instance the core functions, specifications, limitations of ABIS solutions.

7. FACILITIES AND INFORMATION TO BE PROVIDED

Adequate office space, with furniture and internet facilities, shall be assigned to the Biometrics Architect.

8. ESTIMATED EFFORT LEVEL AND DURATION OF THE ASSIGNMENT

The duration of the assignment is initially for 12 months but will renewed subsequently on an annual basis subject to satisfactory performance. The contract type is Time Based.