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DEUTSCHE ZUSAMMENARBEIT

Partners in Transformation
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German Sparkassenstiftung
EASTERN AFRICA

SACCOS BRINGS PEOPLE TOGETHER
SCCULT

TERMS OF REFERENCE

Consultancy Services to Design a Delivery Channels Management Architecture

1.0 INTRODUCTION

German Sparkassenstiftung Eastern Africa (DSIK) is a German-based NGO headquartered in Bonn, Germany. DSIK aims to reduce poverty through sustainable financial inclusion by partnering with local organizations to conduct various projects. These projects focus on professionalizing and digitalizing the microfinance and SACCOS sectors, increasing financial literacy, capacity development, and institutional strengthening.

In Tanzania, DSIK is providing advisory services to the Savings and Credit Cooperative Union League of Tanzania (SCCULT). Project activities in Eastern Africa are not limited to Tanzania, but also include Burundi, Kenya, Rwanda, and Uganda. In Tanzania, DSIK is a registered International Non-Governmental Organization under The Non-Governmental Organization Act, 2002 made under Section 11 (1) and 17 (2) of Act No. 24 in 2002 with Registration No. I-NGO/R1/005.

Within this initiative, DSIK is set to collaborate closely with SCCULT, the umbrella organization for SACCOS in Tanzania mainland. Established in 1992 under the Cooperative Act 15, SCCULT is dedicated to empowering and advancing SACCOS through advocacy, financial assistance, and technical support. SCCULT (1992) Ltd is licensed under the Microfinance Act of 2018, holding license number MSP3-TCDC/2021/00374 issued in 2021.

2.0 PROJECT BACKGROUND

In 2022, the Savings and Credit Cooperative Union League of Tanzania (SCCULT) set out to design, develop, and implement a Shared Core SACCOS System. This initiative aimed to address the low adoption rate of information and communication technologies (ICT) within the SACCOS sector. According to the 2022 SACCOS annual report[1], only 10.13% of SACCOS were utilizing ICT systems. This slow adoption was primarily due to the lack of reliable system vendors and the high costs associated with available systems, making them unaffordable for SACCOS.

Within this initiative, SCCULT aimed to introduce a Core SACCOS System (CSS) that would serve as a shared service for all SACCOS. As the umbrella organization for SACCOS, SCCULT was acutely aware of the digitalization challenges faced by the sector. The Shared Core SACCOS System was envisioned as a solution to these issues, facilitating collaborative resource pool accessible to all SCCULT members. This approach was intended to minimize resource expenditure by lowering fees, ensuring seamless execution of essential tasks, and promoting optimal compliance, efficiency, and cost-effectiveness within the sector.

Through a collaborative partnership involving SCCULT as the business owner, UBX as the system developers, Umoja Switch as a digital payment service provider, and DSIK as project advisors,

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[1] Tanzania Cooperative Development Commission (2023) *The Savings and Credit Cooperative Societies (SACCOS) Annual Report for 2022, The Annual Report on Operations, Performance and Supervision of SACCOS in Tanzania*, Second Edition, 2023, https://www.ushirika.go.tz/uploads/THE_SAVINGS_AND_CREDIT_COOPERATIVE_SOCIETIES_(SACCOS)_ANNUAL_REPORT_FOR_2022.pdf [03.03.2024]

the successful development and initial deployment of the Shared Core SACCOS System have been achieved. Currently, the project is progressing with the onboarding of SACCOS.

The next phase, and hence the specific objective of this assignment, is the integration with alternative delivery channels, specifically mobile banking services and ATM services.

3.0 OBJECTIVES

The objective of this assignment is to **design a comprehensive and secure Delivery Channels Management architecture**. Special attention must be given to the unique architecture required, enabling efficient clearing, reconciliation and settlement of transactions initiated by SACCOS members, routed through SCCULT, a Sponsoring Bank, and ultimately to the Bank of Tanzania (BOT) as needed. As such, the roles, responsibilities and requirements of these actors should be clearly defined as well.

4.0 SCOPE OF WORK

This assignment entails designing a comprehensive and secure Delivery Channels Management architecture for integrating alternative delivery channels (Mobile Bank, ATM and Agency Banking) with SCCULT Core SACCOS System.

The scope of this assignment shall therefore include:

(i) **Needs Assessment.** Conducting a thorough assessment of the current state to identify the specific requirements for Delivery Channels Management. This assessment should consider the needs and requirements of all actors involved including SACCOS members, SACCOS, SCCULT, Sponsoring Bank, MNOs and the Bank of Tanzania (BOT).

(ii) **System architecture design.** Designing a detailed Delivery Channels Management architecture. Special attention must be given to the unique architecture required. SCCULT owns the CSS, which serves as a shared service for multiple SACCOS and is a member of the Umoja Switch Network. As such, initiated transactions, from multiple SACCOS, should be routed through SCCULT, a Sponsoring Bank, and ultimately the Bank of Tanzania (BOT) as needed. Therefore, the roles and responsibilities of these actors should be clearly defined. Further, the architecture must ensure real-time processing, availability, scalability, security and compliance with regulatory authorities.

(iii) **Float Management.**

a. Develop comprehensive float management strategies to ensure the efficient handling and optimization of funds in transit within the multi-layered CSS system. These strategies should take into consideration various settlement procedures for the different use cases and that SACCOS will prefund the settlement accounts via SCCULT who will manage the float for all.

b. Evaluate and forecast cash flow needs within the system.

c. Provide strategies for managing liquidity to ensure funds are available as needed without holding excess idle cash.

d. Implement systems for continuous monitoring of transactions and reporting on float management performance.

e. Recommend the required settlement reports, considering the roles and requirements of the various actors involved.

(iv) **System integration.** Provide a detailed plan for integrating the alternative delivery channels.

(v) **Communication protocols.** Specify secure communication protocols, encryption, authentication and authorization mechanisms to ensure data integrity and confidentiality during data transmission within the designed architecture.

(vi) **Compliance and security.** Ensure the designed architecture complies with relevant financial and ICT regulations and standards, specifying these regulations and standards explicitly.

(vii) **Testing and validation.** Develop a comprehensive testing strategy to validate the functionality, security and performance of the proposed architecture.

(viii) **Documentation and Training.** Prepare detailed technical documentation for the designed architecture. Ensure knowledge transfer to the technical team by closely involving its members in the design process

5.0 KEY DELIVERABLES

The expected deliverables include:

(i) **Inception Report:** This will include the overall approach and methodology to be applied in the assignment, and the time frame for different activities. The report should be provided not later than 3 days after signing the contract.

(ii) **Delivery Channels Management Requirements:** A detailed assessment of Delivery Channels Management requirements. The Delivery Channels Management Requirements document should be provided within one week of completing the requirement-gathering exercise.

(iii) **Design Document:** A comprehensive design document outlining the proposed architecture, including key system diagrams. Communication protocol specifications. Compliance and security measures implemented.

(iv) **Float Management Strategy Document.** A document outlining the proposed float management strategies.

(v) **Integration Plan:** A detailed plan for integrating alternative delivery channels.

(vi) **Testing Strategy:** A comprehensive strategy for testing and validation.

(vii) **Assignment Full Report:** The full report shall provide an overview of all the tasks undertaken within this assignment, results achieved and recommendations.

The assignment duration is expected to be no more than **four weeks**. Deliverables can be submitted throughout this period. All deliverables must be submitted withing **7 days** following the completion of the assignment. Refer to reporting guidelines in the annex.

6.0 QUALIFICATION AND EXPERIENCE OF THE CONSULTANT

The Consultant should have at least a bachelor's degree in a discipline relevant to Information and Communication Technologies (ICT), Information Technology (IT), Digital Finance, Finance and Financial Technology (FinTech), or other relevant discipline. Candidates with bachelor's degrees, possessing adequate experience in payment systems design will also be considered.

The consultant should have relevant qualifications and working experience, particularly:

(i) At least 8 years of working experience in Information and communication technologies (ICT), Information Technology (IT), Digital Finance, Finance and Financial Technology, Banking, Microfinance or related field.

(ii) Proven experience in designing and implementing financial transaction processing systems.

(iii) Strong knowledge of banking systems, payment systems, clearing and settlement systems.

(iv) A comprehensive knowledge of the regulations, policy updates, and circulars within the financial and ICT sector.

(v) Proven experience in planning and executing system integrations, particularly with alternative delivery channels such as Agency Banking. Mobile Banking services and ATM services.

(vi) Proficiency in project management, technical writing, capacity building, facilitation, and project implementation.

(vii) Experience in communicating effectively with a diverse team of partners.

(viii) High ability in producing concise and analytical reports.

6. MODE OF APPLICATION/BIDDING REQUIREMENTS:

Interested consultants should submit both Technical and Financial Proposals for this assignment. A technical proposal detailing their approach to the assignment, methodology, and work plan. Financial Proposals should provide, among other things, a breakdown of costs, and the bidders should be VAT registered (if it is a firm) and must be able to provide Electronic Fiscal Device Receipts (EFDs). The proposals should be accompanied by the Company Profile (for firms), CVs of the responsible team, Address (PO Box), Phone Number, Email Address, Physical Address, and list of both the previous and current Corporate Customers.

The proposals should be submitted to the following e-mail by 1st December 2024: Office.Tanzania@dsik.org

Please be informed that candidates who will not hear responses by 6th December 2024 should consider themselves unsuccessful.

For any enquiry you may contact: Ms. Kalunde Kapaliswa via Tel: +255 766 0202 84 or E-Mail: Kalunde.Kapaliswa@dsik.org

ANNEX 1

Alternative Delivery Channels:

a. **Mobile banking services** – USSD and Mobile App.

Mobile banking services use case	
Intrabank fund transfer	SACCOS member uses his/her mobile phone to transfer funds from his/her account to another account within the SACCOS.
Interbank fund transfer	SACCOS member uses his/her mobile phone to transfer funds from his/her account to another account in another financial institution
Bank to Wallet fund transfer	SACCOS member uses his/her mobile phone to transfer funds from his/her account to a wallet account in a mobile network operator.
Wallet to Bank fund transfer	SACCOS member receives funds sent from a wallet account in a mobile network operator.
Bill payment/Utility purchase	SACCOS member uses his/her mobile phone to perform a bill payment such as purchasing electricity (LUKU), mobile phone airtime, air ticket, water bill, GePG bills (using control number), TV subscription etc.
Loan application	SACCOS member uses his/her mobile phone to request for an emergency loan from the SACCOS.
Cash withdrawal	SACCOS member uses his/her mobile phone to initiate a cash withdrawal to be completed by cardless option on Umoja ATM/agent.
Balance inquiry	SACCOS member performs balance inquiry of their contribution accounts using his/her mobile phone.

b. **ATM services** – Issued cards (Umoja debit cards) will be enabled to transact on Umoja ATMs.

ATM services use case	
Card-based cash withdrawal on Umoja ATMs	SACCOS member goes to the Umoja ATM and performs a cash withdraw using his/her ATM card.
Deposit operations	SACCOS member goes to the Umoja ATM and performs a cash deposit using his/her ATM card.
Card-based balance inquiry	SACCOS member goes to the Umoja ATM and performs a balance inquiry of their contributions accounts using his/her ATM card.
Card-based Mini statement	SACCOS member goes to the Umoja ATM and performs a mini statement using his/her ATM card
Card-based Pin Change	SACCOS member goes to the Umoja ATM and performs a PIN change using his/her ATM card.
Card-based intrabank fund transfer	SACCOS member goes to the Umoja ATM and transfers fund from his/her account to another account within the same SACCOS using his/her ATM card.
Card-based interbank fund transfer	SACCOS member goes to the Umoja ATM and transfers fund from his/her account to another account in another financial institution using his/her ATM card
Merchant payments	SACCOS member pays businesses/merchants for goods and services using his/her ATM card

c. **Agency banking** – Umoja Agency Banking.

Agency banking use case	
Card-based and cardless cash withdrawal at Umoja agents	SACCOS member goes to the Umoja agent and performs a cash withdraw with/without his/her ATM card.
Card-based and cardless cash deposit at Umoja agents	SACCOS member goes to the Umoja agent and performs a cash deposit with/without his/her ATM card.
Card-based balance inquiry	SACCOS member goes to the Umoja agent and performs a balance inquiry of their contribution accounts using his/her ATM card.
Card-based Mini statement	SACCOS member goes to the Umoja agent and performs a mini statement using his/her ATM card
Card-based intrabank fund transfer	SACCOS member goes to the Umoja agent and transfers fund from his/her account to another account within the same SACCOS using his/her ATM card.
Card-based interbank fund transfer	SACCOS member goes to the Umoja agent and transfers fund from his/her account to another account in another financial institution using his/her ATM card
Bill payment/Utility purchase	SACCOS member uses his/her mobile phone to perform a bill payment such as purchasing electricity (LUKU), mobile phone airtime, air ticket, water bill, GePG bills (using control number), TV subscription etc.

ANNEX 2

Reporting Guidelines

1.1 Delivery Channels Management Requirements Document

The Delivery Channels Management requirements document shall contain at a minimum:

(i) Executive summary. A brief high-level summary of the Delivery Channels Management requirements assessment.

(ii) Methodology. A description of how the assessment was conducted, including data sources and methods.

(iii) Requirement analysis. A detailed description of the Delivery Channels Management requirements (both functional and non-functional). Highlighting the specific needs and requirements of all actors involved including:
- MNOs
- SACCOS members
- SACCOS
- SCCULT
- Sponsoring Bank
- Bank of Tanzania (BOT)

(iv) System constraints and limitations. Any limitations or constraints identified during the assessment.

1.2 Design Document

The design document shall contain at a minimum:

(i) Executive summary. A brief overview of the proposed system design and key features.

(ii) Roles and responsibilities. A definition of the roles and responsibilities for each of the actors involved with regards to Delivery Channels Management of the various delivery channels/use cases.

(iii) System architecture overview. High level architecture diagram. A description of the key components and their interactions.

(iv) Detailed system design. Detailed diagrams and descriptions of the system architecture. This includes workflows and system flow charts, data flow diagrams and sequence diagrams for the various use cases.

(v) Communication protocol specifications. A specification of the protocols used. Recommended methods and standards for data encryption, authentication mechanisms, authorization mechanisms, and access control measures.

(vi) Compliance and security. Security measures implemented. A specification of the relevant financial and ICT regulations and standards taken into consideration in the designed architecture.

1.3 Float Management Strategy Document

The float management strategy document shall contain at a minimum:

(i) Executive summary. Summary of float management strategy, highlighting key objectives and approaches.

(ii) Float management Strategies. A detailed strategy for the settlement procedures of the various use-cases. Cash flow forecasting techniques and liquidity management.

(iii) Monitoring and reporting. Tools and processes for real-time monitoring of cash flows. Templates and methods for reporting on float management performance. Recommendations and templates for settlement reports based on actor roles and requirements.

1.4 Integration Plan

The integration plan document shall contain at a minimum:

(i) Executive summary. A summary of the integration plan and its objectives
(ii) Integration Plan. Step by step plan and methodologies including requirements and pre-requisites for integrating the alternative delivery channels (Mobile banking – USSD and mobile App, ATM services, Agency banking) with the CSS.
(iii) Timelines and milestones expected for the integration process

1.5 Testing Strategy

The testing strategy document shall contain at a minimum:

(i) Executive summary. A summary of the testing strategy and its objectives.
(ii) Testing Strategy. A comprehensive strategy for testing the functionality, performance and security of the proposed architecture. Testing methodologies and tools.
(iii) Criteria for success and metrics for performance evaluation.

1.6 Assignment Full Report

The full assignment report shall provide a brief overview of all tasks undertaken during this assignment, highlighting the results achieved, and any recommendations for future steps where applicable.