



# ***Eastern Africa Farmers Federation***

## **Expression of Interest**

(by the consulting firm in response to the REOI issued  
by the procuring entity)

for

*Development of a payment gateway in Uganda and Rwanda*

Ref No: ***GASFP/1.1.2/22***

**Issue Date: 22/12/21**

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# ANNEX 1

## PRELIMINARY TERMS OF REFERENCE

### **Consulting Services for Development of a payment gateway in Uganda and Rwanda**

#### **Terms of Reference (TOR)**

*Development of a payment gateway in Uganda and Rwanda*

#### **1. Client**

The client for this assignment is Eastern Africa Farmers Federation (EAFF)

#### **2. Country background**

The launch of mobile money across East Africa has been instrumental in driving formal financial inclusion, and thus poverty reduction, throughout the region. The substantial growth in formal financial inclusion over the past decade has been driven by mobile financial services.

In Rwanda, formal financial inclusion has increased from 21% in 2006 to 68% in 2016, of which only 26% of the population use commercial banks, compared to 60% of the population that use mobile financial services.

In Uganda, formal financial inclusion has increased from 21% in 2006 to 58% in 2018, of which only 11% of the population use commercial banks, compared to 56% of the population that use mobile financial services.

This context informs e-GRANARY's decision to develop a payment gateway that will enable digital payments for all the farmers on the platform.

#### **3. Background on project**

EAFF with the support of key partners, founded a mobile platform called e-GRANARY. The platform is outfitted with numerous features destined to help connect smallholder farmers to markets, secure access to quality certified seeds and finance to fund their activities.

The overall intention of the GASFP MMI project is to scale out e-GRANARY's innovative ICT mobile technology to facilitate product aggregation, provide timely weather and extension advice, digitize and deliver different loan products to farmers and allow for close monitoring of

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agricultural campaigns. It is in line with EAFF new strategic plan 2020-2028; whose major thrust for EAFF is for commercially viable smallholder farming units.

**Project components:**

Component 1: Access to Services: Registration campaign, platform establishment, partnership development, roll out of products. Specifically, this component wants to achieve:

Component 2: Capacity Building and Knowledge Management:

#### **4. Background of the assignment**

Digital payments in the agricultural last mile benefit farmers and other agricultural actors.

- Increased financial inclusion: Farmers will have greater access to formal financial services through mobile money and other financial service provider (FSPs), and will be able to build up a financial footprint and history. Time and cost savings:
- Farmers will receive payments faster and at a lower cost. Digital payments are also more secure, allowing multiple real-time transfers to farmers in different locations.
- Efficient cash management: Mobile money keeps farmers' cash secure and could deter them from spending cash as they receive it.
- Accountability and transparency: Mobile money can minimise the risks of using cash, such as theft and fraud, while enabling low-cost, transparent and traceable transactions with smallholder farmers.
- Wider access to the financial ecosystem: Digital payments open access to use cases such as bill and merchant payments, and other financial services, such as credit and microinsurance.
- Economic identity and credit scoring: Mobile money account data, together with agricultural and non-agricultural data, can be used to create a farmer economic identity. AgriTechs can either perform credit scoring for FSPs or share data with FSPs for the latter to generate farmer credit scores.

#### **5. Overall objectives**

The Project Goal is to improve the income and living standards of participating e-Granary smallholder farmers in Tanzania, Uganda and Rwanda.

The Project Development Objective is to increase productivity and profitability of participating E-Granary farmers.

#### **Anticipated project outcomes include:**

- E-granary platform will be working with 50,000 smallholder farmers registered onto the e-Granary;
- Smallholders will have increased market access - 22,000 MT of product worth >7M USD sold on the market by smallholder farmers;
- Smallholders will have increased access to financial services - 16,700 small holder farmers receive credit on their mobile phones;

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- Smallholders will have increased access to extension services - 22,000 small holder farmers' access agriculture extension services via mobile phones.

## **6. Objectives of the assignment**

The objective is to implement e-GRANARY's overall payments gateway integration strategy for Uganda and Rwanda. This includes everything from designing and development, testing and the execution of the whole payment gateway processes from disbursement of funds to farmers and vice versa plus the training and managing of the payment gateways processes.

## **7. Scope of work**

Brief scope of work:

- White labelling of the Payment gateway
- e-GRANARY intends to select Internet Payment Gateway Service Provider for providing Integration and Implementation of Electronic Payment Services for collection of fees for Membership, bulk payments, and any other services offered by the Organization through Mobile money, bank transfers, Credit cards/ Debit cards etc.
- Vendor provides technical help as and when required for integration of payment gateway API with e-GRANARY's application system without any charges.
- Vendor provides training for integration for a period of at least 1-2 week to the 5 or more designated officer/s of e-GRANARY and EAFF. The vendor shall also provide adequate training for installation and maintenance of any software required for this project to e-GRANARY official onsite without any charges.
- Vendor provides all the material / document along with the technical support person for onsite support if required without any charges.
- The support engineer/officer also coordinates with the e-GRANARY tech team for Integration, testing and using best practice and related issues and have to follow up with the service provider for troubleshooting and maintains the uptime without any charges.
- For the purpose of regulatory requirement/Court Cases, system generated reports/logs are provided as and when required.
- Vendor provides Test/UAT URL for testing/ user acceptance test of e-GRANARY's application.
- The Service Provider as an aggregator is required to provide the above services to facilitate electronic payment services. The Service Provider should directly have tie ups with Mobile money providers, Credit Card Payment Gateway(s) and respectively

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with related banks for offering the above facilities. In terms of these arrangements the Service Provider's role is to maintain tie-ups, create interface with various, Telcos, Banks and manage the entire backend operations of such services. These include entering into agreements with banks / movement of data and reconciliation of such data against payments.

**Key features expected of payment gateway solution:**

- Fast transaction processing
- Flexible integration solution
- Multi-supportive payment mode
- Comprehensive transaction features
- Smooth and swift exchange of information

**8. Capacity building and transfer of knowledge**

Vendor shall organize for training as follows:

- i. 1-2 days user level training at office should be provided in batches during installation/configuration.
  - ii. Hands on support to be provided to the users office for 1 week / Two cycle to the Users on use of the system/solution. This can be 1:1 training.
  - iii. Minimum one trainer should be made available for hand holding i.e. on the job training period.
  - iv. Vendor will provide Documentation to each participant (hardcopy and softcopy). Document should give illustration for each type of activity with issues and action steps.
  - v. Training also includes Knowledge transfer to core team, engineers/operators and support personnel.
  - vi. User training should include amongst other the following:
    - a. Features/Functionality available
    - b. Administration/Parameterization
    - c. Troubleshooting,
    - d. Interpretation of Reports/logs etc.
9. Reports and schedule of deliverables

Solution Deliverables:

- a) Service Provider should undertake comprehensive study on the services provided by E-GRANARY and develop backend integration for various modules. The interface shall provide data to E-GRANARY application to track the transaction from beginning to final status.
- b) Should, provide for money transmission channels involving;
  - a. Mobile money transactions.
  - b. Bank transactions.
- c) Solution must meet the following transaction categories;
  - a. Client to Business.
  - b. Business to Clients.
  - c. Business to Business.

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- d) Service Provider shall create an exclusive customer interface for monitoring the transactions as per the directions of E-GRANARY from time to time.
  - e) Service Provider shall permit E-GRANARY to access the transaction data from the E-GRANARY infrastructure that will be confirmed.
  - f) Payment Gateway Transactions shall incorporate a strong SSL encryption (128 bit) with real time Authorization and capture of transactions. Mobile and card payments should be supported.
  - g) Payment transactions should use secure servers that encrypt all Credit Cards, / Banking / Personal information. These servers should operate behind security firewalls to ensure maximum protection of the customer's information and use of industry- standard SSL (Standard Sockets Layer) technology, for this data encryption.
  - h) Payment Gateway shall give access to all mobile money wallets and multiple banks.
  - i) The system should be in compliance with the Payment related guidelines
  - j) The payment gateway shall generate Authenticated receipts as proof of transactions and automated generated intimation for the payment sent to the payer/candidate through e-mail and SMS, for various scenarios like successful transaction or failed transaction.

## **10. Consultant's qualifications and experience**

### Key expert 1: Team leader

#### Qualifications and skills

- Minimum 3 Years of experience in Development & integration of payment gateway, API's & other payment stacks.
- Expertise in Core and Web Java, object-oriented design, analysis and design patterns, J2EE designing skills/ Python/Golang

#### General professional experience

- Experience in Working on backed development of Mobile banking solutions.
- Experience in Working on various payment/wallet solutions/IOT Solutions.
- Integration of banking/payment solution to Core Banking system or payment banking system.
- Working on Ideas to create innovative payment solutions.
- Need to design robust business logic including error handling.

#### Specific professional experience

- Experience in Programming skills in core java using primitive data type , use of core java data structure.
- Expertise in Core and Web Java, object-oriented design, analysis and design patterns, J2EE designing skills/ Python/Golang.
- Having experience in development of Java Card applets for the mobile payment / banking sector.

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- Strong knowledge in RESTful web services.
  - Experience with common frontend tools like SASS/Stylus, Jade, Grunt/Gulp,etc

#### Key expert 2:

##### Qualifications and skills

- Minimum 1.5 Years of experience in Development & integration of payment gateway, API's & other payment stacks.
- Expertise in Core and Web Java, object-oriented design, analysis and design patterns, J2EE designing skills/ Python/Golang

##### General professional experience

- Experience in Working on backed development of Mobile banking solutions.
- Experience in Working on various payment/wallet solutions/IOT Solutions.
- Integration of banking/payment solution to Core Banking system or payment banking system.
- Working on Ideas to create innovative payment solutions.
- Need to design robust business logic including error handling.

##### Specific professional experience

- Experience in Programming skills in core java using primitive data type, use of core java data structure.
- Expertise in Core and Web Java, object-oriented design, analysis and design patterns, J2EE designing skills/ Python/Golang.
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#### **11. Location and period of execution**

The Consultant should complete the task within 60 days from signing of the contract. The Consultant will propose a detailed work plan schedule which will be finalized later with e-GRANARY.

e-GRANARY Technology Manager's office shall be responsible for managing supervision of the consultant and administration of the contract

#### **13. Services and facilities to be provided by client**

- APIs for integrating to e-GRANARY platform
- E-GRANARY platform features documentation

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- Notification services
  - Organize a coordination meeting
  - Provide feedback when and where necessary
  - Payment to the consultant as per agreement
  - Hosting infrastructure

**14. Services and facilities to be provided by the consultant**

- Integration work
- Development work
- Testing (UATs/FATs)
- Quality control
- Training
- Payment gateway full Documentation

## ANNEX 2

### Qualification and Evaluation Criteria

*[Insert criteria related to required qualifications and experience of the firm, such as core business and years in business, relevant experience, technical and managerial capability of the firm. The qualifications and experience of key experts shall not be included in the shortlisting criteria as the shortlisted firms will be asked to submit a detailed technical and financial proposal which is then negotiated.]*

***[Sample below]***

Item	Criteria	Points
For specific experience, evidence shall include successful experience in the execution of <b>at least 2 projects</b> of a similar nature and scope of works during the <b>last 10 years</b> .		
<b>A.</b>	<b>General experience</b>	<b>30</b>
i	General experience: Firm has been in existence for 10 years	10
<b>B.</b>	<b>Specific experience</b>	<b>70</b>
i	Experience in setting up a data archiving and retrieval system	15
ii	Experience in designing and implementing capacity building and organizational information systems for public or non-profit organizations in developing countries	40
iii	Experience in data validation and verification procedures	15
	<b>Total Points</b>	<b>100</b>
	<b>Minimum points required to pass</b>	<b>70 points</b>