



**SAFARICOM PLC
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**EXPRESSION OF INTEREST FOR
SUPPLY AND INTEGRATION OF SMART WATER METERS**

Document Release Date: 7th July 2021

Last Date for Receipt of Proposals: 16th July 2021

ACCRONYMS

2G- 2nd Generation

3G- 3rd Generation

AES- Advanced Encryption Standard

EOI- Expression of Interest

GPRS- Global Packet Data Radio Service

IoT- Internet of Things

ISO- International Organization for Standardization

KEBS- Kenya Bureau of Standards

LE- Large Enterprises

NB-IoT- Narrow Band IoT

OEM- Original Equipment Manufacturer

OIML- International Organization of Legal Metrology

SME- Small and Medium Enterprises

SMS- Short Message Services

SMS-Short Message service

UDP- User Datagram Protocol

Table of Contents

ACCRONYMS.....	2
1.0 Introduction.....	4
2.0 Scope.....	4
3.0 Submission of Enquiries and Responses	4
4.0 Requirements for the bidders	5
5.0 Instructions to Respondents	7
6.0 Next Steps.....	Error! Bookmark not defined.
7.0 Note.....	9
Appendix 1: Information on staff and organization experience.....	9

1.0 Introduction

Safaricom Business aims to be an insights-led technology solutions organization and the leading IOT solutions provider in Kenya through the creation of vertical led solutions for the Public, Large Enterprises and SME's.

This Expression of Interest (EOI) is intended to lead to the identification of suppliers that can demonstrate having capacity to supply and integrate smart water meters to our IOT platform, which will lead to provision of IoT based smart water metering solutions.

2.0 Scope

Safaricom shall engage selected partners to supply and integrate various categories of smart water meters to be used for IOT smart water metering solutions. This will include the supply, integration and testing the smart water meters to confirm interoperability with Safaricom infrastructure that includes network connectivity and the IoT software platform.

Bidders are expected to share detailed responses showcasing the firm's capacity and experience in offering smart water meters with the capabilities detailed in the EOI document.

3.0 Submission of Enquiries and Responses

All enquiries relating to this EOI and the final responses should be addressed to mmkirmi@safaricom.co.ke , lambani@safaricom.co.ke and a copy to bids@Safaricom.co.ke .

The deadline for submission of responses is **16th July 2021**

4.0 Requirements for the bidders

Interested firms must provide below information;

Category	Requirement	Criteria
Company Information	Supplier Information	<p>The supplier should provide the following information;</p> <ul style="list-style-type: none"> ✓ Overall Company profile clearly indicating business focus areas. ✓ Certificate of incorporation/Registration certificate. ✓ Audited financial accounts for the past 2 years.
	Industry Certifications	<p>The supplier shall demonstrate having obtained the following certifications;</p> <ul style="list-style-type: none"> ✓ ISO 9001 certified ✓ Type approval certificate (either according to EN ISO 4064 from 2005 or 2014, or OIML R49 from 2003 or 2013) for each smart water meter model. ✓ Manufacturer's authorization if the supplier is not the smart meter OEM. ✓ KEBS (Measurement Instrument Directives) certification <p>The supplier should provide additional information about other relevant certifications obtained.</p>
Smart Water Meter Technical Specifications	Meter Type and Class	<p>The supplier shall demonstrate that the meters in scope of this EOI are of Class B and C supporting the following water flow metering technologies;</p> <ul style="list-style-type: none"> ✓ Ultrasonic Flow Meters ✓ Electromagnetic meter
	Meter Sizes	<p>For each of the above meter types, the supplier shall provide a list of smart meter sizes</p>
	Meter Operating Specifications	<p>The supplier shall demonstrate that the meters meet the following operating environment;</p> <ul style="list-style-type: none"> ✓ Tolerance to extreme and wide temperature variations. within the working temperature range.

		<ul style="list-style-type: none"> ✓ Non-toxic, non-contaminating, and biologically inert. ✓ Resistance to internal and external corrosion. ✓ Non-obstructed and protected water meter reading device. ✓ Built in Sieves/Strainers
	Meter Valves	The meters should have a non-return valve that can be operated remotely via GPRS or SMS commands.
	Tamper Protection and detection	The supplier shall explain tamper events that can be detected by the meters and provisions to safeguard against tampering.
	Telemetry Information	<p>The supplier shall demonstrate that the smart water meters measure and transmit the following telemetry information via the network aggregated at configurable periods i.e. hourly, daily etc.</p> <ul style="list-style-type: none"> ✓ Consumption ✓ Battery Level ✓ Network Signal Strength ✓ Valve Status ✓ Pressure ✓ Flow Rate ✓ Temperature ✓ No Flow ✓ Dry Pipe ✓ Air in Pipe ✓ Tampering
	Network Compatibility	The smart meter communication module should be compatible with NB-IoT (B20) with fallback to 2G/3G (Safaricom Bands)
	Data Communication Requirements	<p>The smart water meter communication module should have the following data communication characteristics;</p> <ul style="list-style-type: none"> ✓ Can transmit data to Safaricom IoT server/platform only via standard IP transport protocols i.e. UDP. ✓ Data Payloads to the Safaricom IoT Server/Platform should be transmitted at a configurable time and frequency/intervals.

		<ul style="list-style-type: none"> ✓ Data payloads should be secured with standard encryption technologies i.e. AES encryption versions. ✓ Support for bidirectional communication with the meter for operations i.e. valve operation, configuration, firmware update etc. through GPRS or SMS. ✓ In case of failed communication or transmission to the Safaricom IoT platform, the meter should buffer and retransmit the data to ensure no data is lost.
	Battery Warranty	The supplier shall demonstrate that the smart water meter battery is long lasting i.e. 8 years + and can be replaced without impeding the meter operation.
	Integration Services	The supplier shall provide necessary integration services to the Safaricom IoT platform.
Technical documentation	Technical literature	<p>The supplier shall provide the below technical literature:</p> <ul style="list-style-type: none"> ✓ Technical Manuals ✓ Protocol documents ✓ Data Format description document
References	Reference Customers	The supplier shall provide list of clients where the smart water meters in scope of the EOI have been supplied before.

5.0 Instructions to Respondents

- a) The EOI response should not include pricing/commercial proposal.
- b) All responses should be provided in standard file formats i.e. XLSs, DOC(X) and PDF.
- c) The receipt of a response shall not bind Safaricom into any contractual agreements with the bidder. Such arrangements shall only come into place once a tender process has been undertaken and an award issued to successful bidder(s) as evaluated technically and commercially.

- d) Any costs associated with the preparation and submission of the response to the EOI shall be borne by the vendor.
- e) State if you intend to submit this bid as a joint venture/consortium or any other joint format
- f) Organization and staff experience information to be submitted in the format provided in appendix 1 (Information on staff and organization experience)
- g) Share accompanying link to demos/documentation on the necessary technical descriptions.

6.0 Evaluation Process and Follow-On Steps

Once Safaricom PLC receives responses to this EOI on the closure date indicated, an Evaluation Committee will be constituted to evaluate the responses provided by the EOI respondents.

- The Evaluation Committee constituted shall evaluate all the responses to the EOI including all supporting documents, links & documentary evidence. Please NOTE that failure to submit requisite supporting documents or documentary evidence, may lead to rejection of the EOI response.
- The Evaluation Committee may seek additional documents as it deems necessary, at its discretion as part of the evaluation exercise that will be undertaken
- EOI respondents who meet the minimum requirements may be called for a detailed presentation for further evaluation of their technical capability, product quality, Quality Analysis procedure, etc. as part of the EOI evaluation.
- Only those EOI respondents that meet the minimum requirements indicated in the EOI requirements section will be shortlisted following successful evaluation of their offering/solution proposal
- Successful potential partner(s) will be notified to be a "Safaricom Supplier for Smart Water Meters" and contracted accordingly.

Below is a summary of activities from when the EOI will be sent out to closure/contracting;

No.	Activity
1.	EOI sent out
2.	EOI responses receipt
3.	EOI responses review and evaluation
4	Clarifications and further discussions with partners if required
5.	EOI Presentations and Demo if deemed necessary

6.	Tender Process
7.	Evaluation, Award and Contracting

7.0 Note

Safaricom PLC reserves, at its sole discretion, the right to select or reject either in totality or partially, any or all proposals made in the context of this EOI. Any such decisions made will be final and no correspondence will be engaged into, other than for informing the bidders of the outcome of the process.

Appendix 1: Information on staff and organization experience

Table 1: List of Key Technical Staff

Name	Current Position	Years of Professional Experience

Table 2: List of Firms Relevant Project Experience

Project Description	Year of Project Delivery	Client	Project Value (Kshs)