



**COUNTRY: KENYA**  
**PROJECT: KENYA DIGITAL ECONOMY ACCELERATION PROJECT (KDEAP)**  
**IMPLEMENTING AGENCY: Information and Communications Technology Authority (ICTA)**

**PROJECT ID: P170941; Credit Numbers 7289-KE and 7290-KE**

**TERMS OF REFERENCE FOR:**

**Request for Expression of Interest**

**for:**

**Technical Assistance to Develop Open Fibre Data Standards  
and Shared Data Base (Consulting Firm)**

**Contract No: KE-ICTA-392524-CS-QCBS**

**Issue Date: 23<sup>rd</sup> April 2024**

**Closing Date: 8<sup>th</sup> May 2024**

**Client:**

The Chief Executive Officer,  
ICT Authority  
Telposta Towers 12<sup>th</sup> Floor, Kenyatta Ave  
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Tel: +254 20 2089061/ 2211960 Fax: +254 20 2211960  
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## **Technical Assistance to Develop Open Fibre Data Standards and Shared Database (Consulting Firm)**

### **1. Background**

The Government of the Republic of Kenya (GoK) has received credit financing in the amount equivalent to US\$390 Million from the World Bank towards the cost of the first phase of the Kenya Digital Economy Acceleration Project (thereafter “Project”) and intends to apply part of the proceeds to pay for goods, works, non-consulting services and consulting services to be procured under the Project.

The project includes the following components.

**Component 1: Digital Infrastructure and Access.** The aim of this component is to increase access to high-speed internet for individuals, industry, and government—the ‘foundation of the foundations’ of a digital economy—and strengthen Kenya’s role as regional digital leader, while leveraging investments from the private sector.

**Component 2. Digital Government and Services.** This component will invest in the foundational digital services, platforms, architectures, and policies needed to transform the way the Government communicates and conducts its internal operations.

**Component 3. Digital Skills and Markets.** This component aims to equip young Kenyans with digital skills and strengthen their abilities to access and compete in domestic and regional markets, to study mechanisms to improve access to affordable devices and to support Kenya’s role as a regional digital hub by enhancing the enabling environment for e-commerce.

**Component 4. Project Management.** This component will support project implementation, coordination, and capacity building for the Project Implementation Unit (PIU) within the Information and Communications Technology Authority (ICTA).

**Component 5: Contingent Emergency Response Component.** This component will be activated in the event of an emergency.

The GoK intends to apply a portion of the proceeds of the Credit to cover activities under component 1 (Digital Infrastructure and Access) to undertake a consultancy to (i) develop and promote the use of the Open Fibre Data Standard for mapping and describing existing and planned fibre networks, and (ii) participate in regional workshops to encourage the adoption of the standard by fibre network providers and communication regulators across East Africa, under the leadership of the Communications Authority (CA) of Kenya.

### **2. Objectives of the Assignment**

The objective of this consulting service is to develop a framework for the sharing and use of standardized data to describe fibre network infrastructure and thus reduce duplication in the rollout of telecommunications infrastructure and support collaboration and decision-

making by key stakeholders, including operators, policymakers, investors and development partners.

The specific objectives of the consulting services are:

- 1) To enable the publication and use of Open Fibre Data Standard in Kenya and the Eastern Africa region;
- 2) To support the capacity-development of regulatory agencies, communication ministries, and operators in the adoption of the Open Fibre Data Standard;
- 3) To build awareness of the need for open data standards in the deployment of fibre through documentation and outreach materials; and
- 4) To showcase data use project in Kenya to demonstrate the value of publishing and using the Open Fibre Data Standard for fibre deployments in the Eastern Africa region.

### **3. Scope of Services and Specific Tasks of the Assignment**

#### **3.1 General Scope**

The scope of services covers the 47 counties within the Republic of Kenya while the Stakeholder Engagement and Sensitization activities will take place in a Capital City of any of the countries under the East African Community (EAC).

#### **3.2 The specific tasks in this assignment include:**

- 1) Propose a framework for the development of a trusted open data infrastructure repository, including stipulating the necessary data network information to be provided by all infrastructure providers;
- 2) Engage with regulatory agencies and network operators to identify tools and process requirements for aggregating and using fibre network data in Open Fibre Data Standard format. This may include reusing and adapting existing open source tools;
- 3) In consultation with network operators, recommend a set of regulatory tools, data governance mechanisms, and field-level specifications that would allow the Open Fibre Data Standard to be shared:
  - a. as public open data; and,
  - b. with the CA of Kenya.
- 4) Develop and deliver trainings in the region, including train-the-trainer capacity building workshops;
- 5) Develop (in close collaboration with all relevant stakeholders) and showcase a data-use project to demonstrate the value of adopting the Open Fibre Data Standard; and

- 6) Explore the scope for additional open data standards with the telecommunications sector.

#### 4 Duration and location of Assignment

The duration of the assignment shall be up to thirteen (13) calendar months from contract signature date within the prescribed scope. The location of the assignment is in the Eastern Africa region, with workshops to be held in Nairobi or Arusha (in conjunction with EAC).

#### 5 Reporting requirements and timelines for deliverables/reports

The reporting requirements and timelines for deliverables are as shown in Table 1.

**Table 1: Reporting requirements and timelines for deliverables/reports**

No.	Outputs /Deliverables	Description of outputs/deliverables	Timelines for submission of deliverable after commencement date	Number and format of reports presentation
1)	Inception Report	Detailed plan with approach for carrying out the tasks outlined, including work-plan	1 month	2 Hard copies and 2 digital copies.
2)	Policy and Regulatory Analysis Report	Draft report on assessment of the policy and regulatory factors and recommendations to promote sustainable investment in data infrastructure	3 months	2 Hard copies and 2 digital copies.
3)	Draft Tools and Procedures Report	Draft Report on the development of export, aggregation, and validation tools for open fibre data standards datasets. Facilitate a workshop with relevant stakeholders to review the report	5 months	2 Hard copies and 2 digital copies.
4)	Capacity Building Report	To include: i. Draft capacity-building strategy, training materials, and facilitator guides. ii. Summaries of planned and delivered workshops and related capacity-building events.	6 months	2 Hard copies and 2 digital copies.

		<ul style="list-style-type: none"> <li>iii. Open fibre standard requirements</li> <li>iv. Draft strategy for ongoing capacity building</li> </ul> <p>Facilitate a workshop with relevant stakeholders to review the report.</p>		
5)	Workshop report	<p>Develop and deliver trainings in the region, including train-the-trainer capacity building workshops i.e.:</p> <ul style="list-style-type: none"> <li>One (1) online training for the East African region</li> <li>One (1) training workshop in Nairobi for ICT stakeholders</li> <li>One (1) training workshop in Arusha for regulators and Key operators in the region</li> </ul>	8 months	2 Hard copies and 2 digital copies.
6)	Final Reports	<p>After conducting validation workshops, the consultant shall provide the final reports, to include:</p> <ul style="list-style-type: none"> <li>i. Guidance and tools to support network operators to export and validate Open Fibre Data Standard data.</li> <li>ii. Guidance and tools to support regulatory agencies and network operators to aggregate and use Open Fibre Data Standard.</li> <li>iii. Disclosure recommendations covering Open Fibre Data Standard fields to be shared publicly and with the communication regulator.</li> <li>iv. Policy and regulatory Analysis Report</li> <li>v. A capacity-building strategy, training materials and facilitator guides for publishing and using Open Fibre Data Standard data.</li> <li>vi. A project plan for a showcase data-use project.</li> </ul>	13 months	2 Hard copies and 2 digital copies.

All draft and final reports (1 original hard copy and 1 hard copy and a digital copy) shall be submitted in the prescribed format to:

The Chief Executive Officer,  
ICT Authority  
Telposta Towers 12<sup>th</sup> Floor, Kenyatta Ave  
PO Box 27150 – 00100  
Nairobi Kenya  
Tel: +254 20 2089061/ 2211960 Fax: +254 20 2211960  
Email: [procurement@ict.go.ke](mailto:procurement@ict.go.ke) , [info@icta.go.ke](mailto:info@icta.go.ke)  
Website: [www.icta.go.ke](http://www.icta.go.ke)

Attention:  
The Project Coordinator  
KDEAP

And additional four (4) hard copies and a digital copy of each required deliverable to the address below:

**Director General**  
Communications Authority of Kenya  
CA Centre, along Waiyaki Way  
P. O. Box 14448  
Nairobi 00800, Kenya  
Email: [dg@ca.go.ke](mailto:dg@ca.go.ke)  
Tel: 0703 042 000

Upon submission of every report, the consultant is expected to make a presentation of the submitted report to the Client in a scheduled meeting. The acceptance of the report shall be recorded in the minutes of the meeting.

## 6.0 Payment Schedule

The proposed payment schedules based on satisfactory performance of the contract which will be negotiated with the successful consultant will be as presented in Table 2 below.

**Table 2: Proposed payment schedule**

S/No.	Deliverables	Timelines after contract commencement	Percentage of the contract amount
1)	Submission and Acceptance of Inception report	1 month	10%
2)	Submission and Acceptance of Policy & Regulatory Analysis Report	3 Months	10%
3)	Submission of Draft Tools & Procedures Report	5 Months	15%
4)	Submission of Capacity Building Report	6 Months	10%

5)	Workshop Report	8 months	20%
6)	Submission and Acceptance of Final Reports	13 Months	35%

Upon submission of every report, the consultant is expected to make a presentation of the submitted report to the Client and the Communications Authority of Kenya in a scheduled meeting. The acceptance of the report shall be recorded in the minutes of the meeting.

### **7.0 Minimum Consultant’s qualifications and experience requirements**

The shortlisting criteria for the Consulting Firm will involve the following:

- a) **Core business and years in business:** The firm shall be registered/incorporated as a consulting firm with core business in delivering advisory/consultancy services on Open Data or related ICT projects for a period of at least ten (10) years.
- b) **Relevant experience:** The firm shall demonstrate having successfully executed at least two (2) assignments of similar nature and complexity in the ICT sector within the EAC in the last five (5) years. Details of the assignments (name and address of the client, scope, value, and period) should be provided. Attach copies of completion certificate/Recommendation Letter and an LPO/Contract for each assignment.
- c) **Technical and managerial capability of the firm:** The firm shall demonstrate having the requisite technical and managerial capacity to undertake the assignment (attach company profile).

### **8.0. Team composition and minimum qualification and experience requirements for key experts**

The consultant shall demonstrate well qualified and experienced experts as required and appropriate for the execution of the assignment. They should possess necessary resources to undertake works of such nature, including equipment and software required. The key experts shall personally carry out (with any assistance of other experts deemed appropriate) the services as described in this TOR.

**Table 3: Team composition and minimum qualification and experience requirements for key experts**

No.	Consultant Team
1)	<p><b>Lead Consultant:</b></p> <ul style="list-style-type: none"> <li>i. A Masters degree in telecoms / electrical engineering / data science / computer science / or related fields;</li> <li>ii. Minimum ten (10) years of demonstrated experience providing advisory / consultancy services on telecom policy, regulations and telecommunications engineering</li> <li>iii. Specific experience in the delivery of telecom trainings for both the private and public sector within the East African Community (EAC) within the last three (3) years. Attach two (2) recommendation letters i.e. from a private and public entity respectively.</li> </ul>
2)	<p><b>Key Experts</b></p> <ul style="list-style-type: none"> <li>i. <b>Open fiber data expert (One):</b> A Masters degree in telecoms / electrical engineering / data science / computer science with atleast five (5) years of experience in developing and implementing open data standards.</li> <li>ii. <b>Legal, Policy and Regulatory Expert (One):</b> A Law degree from a recognized University, with at least eight (8) years demonstrable experience providing advisory/consultancy services on Telecoms, Digital Access Advisory and Research projects.</li> <li>iii. <b>Economics Expert (One):</b> An economics degree from a recognized University, with at least eight (8) years demonstrable experience providing advisory/consultancy services on Telecoms, Digital Access Advisory and Research projects.</li> <li>iv. <b>Geographical Information Systems Expert (One):</b> A degree in Geography / Cartography / GIS, or a related field, from a recognized university with at least 5 years demonstrable experience providing advisory/consultancy services on Telecoms, Digital Access Advisory and Research projects.</li> </ul>



### 9.0 Estimated time inputs for key experts

The number of key experts and the estimated time input for each key expert for the assignment are presented in Table 4.

**Table 4: Estimated Time Inputs for Key Experts**

S/No	Key and support Staff	No	Estimated Time Input (staff-months)
1)	Lead Consultant	1	13
2)	Open fiber data expert	1	13
3)	Legal, Policy and Regulatory Expert:	1	6
4)	Economic Expert	1	6
5)	A Geographical information Systems expert:	1	8
<b>Total</b>		<b>5</b>	<b>46</b>

### 10.0 Responsibilities of the Client

The consultant shall be contracted by the ICTA on behalf of the CA. The consultant must ensure that the tasks identified above are performed in a result-oriented manner with the sole objective of achieving outputs and outcomes expected from the assignment as has been described in the details above. The consultancy is encouraged to utilize local expertise as appropriate.

CA shall provide the following to the best of its ability:

- 1) Available data, studies and literature considered relevant for accomplishing identified tasks;
- 2) Access to key officials within the relevant Ministries, agencies and relevant industry key players including operators, regulators and/or any others as applicable;
- 3) Help convene key stakeholders and support cooperation with the Government of Kenya and other organizations whose activities and programs may be considered relevant to this project, to enable the consultants to have access to the information necessary to carry out their work program;
- 4) Provide timely feedback on deliverables.

### 11.0 Responsibilities of the consultant

The Consultant shall be responsible for the provision of all the necessary resources to carry out the services such as international travel, project transportation for visits in counties, subsistence allowances, accommodation, information technology, and means for communications, reporting materials, insurance and any other required resources. The consultant is expected to undertake activities that will ensure that outputs are consistent

with the professional and legal requirements. All outputs will be presented using modern techniques/technology. It is also required that the data is generated through a consultative process that guarantees authenticity and ownership.

**Propriety rights of the Client in reports and records:** All software tools developed in the context of this contract shall be released under an Open Source license such as the Gnu General Public License

([https://en.wikipedia.org/wiki/GNU\\_General\\_Public\\_License](https://en.wikipedia.org/wiki/GNU_General_Public_License)) or similar platforms.