



REPUBLIC OF KENYA



**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  
Digital Infrastructure Expert (Individual Consultant)**

**Contract No: KE-ICTA-388822-CS-INDV**

**Issue Date: 13<sup>th</sup> August 2024**

**Closing Date: 28<sup>th</sup> August 2024**

**Client:**

The Chief Executive Officer,

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## 1. Background

The Government of the Republic of Kenya (GoK) has received 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<sup>1</sup> and it intends to apply part of the proceeds to payments for goods, works, non-consulting services and consulting services to be procured under this project.

The project will include the following components.

**1.1 Component 1: Digital Infrastructure and Services-**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

**1.2 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.

**1.3 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 through supporting skills development, to study mechanisms to improve access to affordable devices and through enhancing the enabling environment for e-commerce to support Kenya’s role as a regional digital hub.

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

**1.5 Component 5: Contingent Emergency Response Components-**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 sub-components 1.1 (middle-mile connectivity); 1.2 (last mile connectivity for education sector), 1.3 (last-mile connectivity for government institutions) and R1.5 (Enhancing Regional Digital Integration). The project aims to accelerate digital transformation at the regional level focusing on critical digital enablers that ‘future-proof’ economic growth and leveraging Kenya’s leadership role in the region to facilitate the adoption and implementation of regionally harmonized frameworks for digital integration.

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<sup>1</sup> The Program Information Document for KDEAP, and other documentation, is available at: <https://projects.worldbank.org/en/projects-operations/project-detail/P170941>.

## 2. Objectives of the Assignment

The Information Communication Technology Authority (ICTA) is looking to hire an individual consultant in the capacity of a Digital Infrastructure Expert who will work within the Project Implementation Unit (PIU) in ICTA and will be responsible for leading the overall project preparation and implementation with respect to the Digital Infrastructure and Access activities (Component 1 of KDEAP).

## 3. Scope of Work and Specific Tasks

The scope of services includes review of the network design & planning and providing technical advice on Kenya's national infrastructure including the One Government Network (OGN<sup>2</sup>).

### 3.1 Specific Tasks

The Digital Infrastructure Expert will proactively work to carry out the following tasks:

- a. Provide expertise and hands-on design/support/implementation interventions on digital infrastructure to realize the plans for a digital superhighway.
- b. Work on the development of the digital infrastructure as per: 1) the Kenya National Digital Master Plan 2022-2032, 2) the Kenya Government Digital Architecture Strategy 2023 and 3) in tandem with KDEAP component 1 scope, as set out in the project appraisal document.
- c. Provide expertise and hands-on support for the implementation of the Kenya's backbone network (sub-component 1.1) and last-mile connectivity (1.2), and border crossings (R1.5) as well as the OGN under sub-component 1.3).
- d. Review Kenya's existing infrastructure, including the OGN, and provide the technical report on the gaps and recommendations.
- e. Provide technical advisory for all digital infrastructure and access related activities envisioned under the project, including backbone and metro Network, Government Network, last-mile connectivity.
- f. Provide advisory expertise in the area of policy for digital transformation, particularly as it relates to infrastructure architecture, regulatory interventions, institutional frameworks, etc.
- g. Facilitate the coordination of technical assistance and activities funded by the project by engaging with relevant stakeholders and beneficiaries. Assess evolving gaps and needs, offer technical guidance, ensure efficient planning, seamless implementation, rigorous quality assurance, and oversee follow-up, maintenance, and support efforts.
- h. Work closely with the Ministry responsible for ICT and the Digital Economy, ICTA, and Information Security experts, to provide expertise and hands-on technical support for digital infrastructure security issues.

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<sup>2</sup> The network assets of the OGN were formerly known as the National Optical Fiber Backbone Infrastructure (NOFBI).

- i. Work closely to assist the efforts of the transaction advisor to be hired with responsibility for commercializing the OGN and putting it on a more stable financial footing;
- j. Assist the Procurement Specialists and Contract Management Specialists in handling the technical aspects of procurement and contract management for associated activities. This involves:
  - (a) aiding stakeholders and beneficiaries in drafting, refining, and reviewing technical terms of reference and bidding documents;
  - (b) serving as the point of contact for contracted consultants and firms regarding technical assignments;
  - (c) coordinating with various parties to ensure the timely and technically compliant delivery of activities
- k. Facilitate the creation and assessment of technical specifications/standards, plans, and proposals, addressing aspects such as reliability, climate impact, quality of service, and vulnerability as required.
- l. Provide supervision and managing guidelines for the network design that are scalable and capable of being expanded to meet future forecasted requirements.
- m. Work closely with the infrastructure team to ensure the integrity of high-availability network infrastructure to provide maximum performance for all users on the network (i.e. staff and workers across all GoK MCDAs).
- n. Maximize network performance by strengthening the monitoring performance, troubleshooting network problems and outages, scheduling upgrades and collaborating with network architects on network optimization. This will be through well thought out guidelines and appropriate (re) structuring of the relevant unit(s).

#### **4. Duration and Location of Assignment**

The assignment will be an overall period of thirty-six (36) calendar months. It is intended that this Consultant will be contracted for a period of thirty six (36) calendar months from the date of commencement with a probation period of three (3) calendar months.

The Digital Infrastructure Expert shall be based in ICT Authority, Telposta Towers, Nairobi, Kenya, as part of the PIU team, with travels as required country-wide to review the project progress.

#### **5. Reporting Requirements and Timeline for Deliverables:**

The Digital Infrastructure Expert will prepare a monthly report highlighting the tasks performed, challenges, and specific recommendations on key actions that should be taken to steer the project to success. The Digital Infrastructure Expert shall also, where required, prepare a summary of the status report(s) of works execution. All reports

prepared by the Digital Infrastructure Expert shall be reviewed and submitted to the Project Coordinator.

All reports will be submitted within 7 days after the end of reporting month or period in hard and soft copies (in Microsoft Word, Excel, or Power Point, or in any other format as may be deemed appropriate by the PIU Project Coordinator. These reports will accompany the consultant's timesheet for payment.

#### **6. Payment Schedule/Remuneration**

The Digital Infrastructure Expert shall be remunerated based on a monthly rate, which will be negotiated with the successful candidate during Negotiations. Remuneration will be based on competitive rates, commensurate with the selected candidate's area of expertise and work experience, provided he or she has satisfactorily fulfilled all requirements stipulated herein above.

Payment shall be monthly upon submission and approval of the monthly reports. The consultant will submit to the Project Coordinator, a monthly timesheet, with a supporting invoice, as the basis for payment for the consultancy services. Costs incurred by the Digital Infrastructure Expert outside the assignment location will be reimbursed upon submission of a statement of expense and verifiable supporting documentation to the KDEAP Project Coordinator.

#### **7. Minimum qualification and experience requirements**

The Digital Infrastructure Expert shall possess the following minimum qualifications and experience qualification:

- i. A minimum of a Master's degree in any of the following fields: Telecommunication Engineering, Electronic and Electrical, Computer Science/Networks Administration or related engineering fields from a university/institution recognized in Kenya.
- ii. A minimum of 10 years of general experience in designing and executing digital infrastructure & networks.
- iii. A minimum of 5 years direct experience in fiber optic infrastructure construction and maintenance & other networking technologies.
- iv. Registration and valid membership with a professional body recognized in Kenya as applicable.

#### **8. Management and Accountability of the Assignment**

The Project Coordinator of the KDEAP PIU will supervise the work of the Consultant, and shall be responsible for coordination of activities of the consultants. On a day-to-day work basis, the consultant shall work and report to the Project Coordinator.

#### **9. Responsibility of the Client**

The client will provide working space adequately equipped and furnished, provide free of charge all available existing information including the communication strategy, data, reports and clips and will assist the Consultant in obtaining other relevant information

and materials from governmental institutions and state authorities where necessary. However, it is the duty of the Consultant to check availability, quality and suitability of this information. The information, data, reports as mentioned above will be available for the consultants unlimited use during execution of the proposed services within the project.

Where travelling individually on project duties, subsistence allowance shall be paid in the equivalence of the Public Service Job Group P rates. All individual travel shall be approved prior to the task by the Project Coordinator.

#### **10. Responsibilities of the Consultants**

The Consultant shall be responsible for their own transport, accommodation, insurance, Airtime and other associated costs.