

Federal Government of Somalia
Ministry of Communications and Technology

The Eastern Africa Regional Digital Integration operation (EA-RDIP) (2023-2028)
Terms of Reference (TOR) for
DIGITAL INFRASTRUCTURE SPECIALIST

A. BACKGROUND

In the absence of an integrated fiber optic backbone network, more than 70 percent of Somalia’s population does not have access to broadband services. The Federal Republic of Somalia, located on the coast of the Horn of Africa, Somalia has up to 5 submarine cable gateways, enabling the connection of at least 12 cables, making it possible for the country to obtain internet connectivity from various international destinations. However, a lack of fiber backbone, backhaul and last mile connectivity prevents Somalia from benefiting from increased international capacity available via several new under-sea cables landing on its shores. It also limits Somalia from serving landlocked neighbors such as Ethiopia. Adoption of broadband services remains low in Somalia compared to regional peers. Mobile broadband penetration is estimated to be 15.4 percent. Important gaps in the value chain impact the quality of service, resulting in low speeds and high call drop rates. The fragmented market and lack of interconnection between operators is limiting network deployment outside of the major urban areas.

Through World Bank’s support, ‘The Eastern Africa Regional Digital Integration operation (EA-RDIP) (2023-2028) is being prepared to address connectivity needs for countries in the Horn of Africa region. The proposed program aims to advance the regional integration of digital markets Eastern Africa through supporting cross-border connectivity, harmonization of data and e-commerce regulations and policies, and removal of trade barriers, with the vision of establishing a Single Digital Market (SDM). Regional efforts to move towards an SDM is envisioned to have economic and welfare gains to all participating economies and will be especially beneficial for smaller economies to tap larger regional markets for economic expansion. It is proposed for the project components to follow the SDM framework and for participating countries (Ethiopia, Somalia, South Sudan in phase 1) to tailor each component for its investment and technical assistance needs.

Specifically in Somalia, EA-RDIP (\$80 million) will support the Government of the Federal Republic of Somalia to establish digital connectivity and integrate with the regional digital market. EA-RDIP aims to increase access to broadband and digital services through the development and integration of digital markets in the Eastern Africa region. The proposed interventions will provide investment financing to address connectivity infrastructure gaps and technical assistance to ensure regional harmonization of regulations and standards towards the development of the regional digital market for the countries in the Horn of Africa region. The project has four components, as briefly described below:

- *Component 1. Connectivity Market Development and Integration.* This component will provide support to develop terrestrial cross-border connectivity and expand backbone and last-mile connectivity to rural and remote communities.
- *Component 2. Data Market Development and Integration.* This component will provide support to the integration and development of the data market, to enable secure exchange, storage and processing of data across borders, including strengthening the environment for cybersecurity.
- *Component 3. Online Market Development and Integration.* This component will provide support to the integration and development of the online market, through targeted support for e-service enablers and digital skills.
- *Component 4. Project Management and implementation.* This component will provide technical assistance and capacity support for project preparation and implementation.

EA-RDIP in Somalia will be implemented by the Ministry of Information, Communication Technology (MoCT). A Project Implementation Unit (PIU) will be set up at the MoCT which will be responsible for overall implementation, fiduciary, Environment and Social Framework (ESF) compliance for the project. The PIU will be supported with technical committees (TCs) bringing together key MDAs in the country, and also representation from federal member states (FMS). The PIU at MoCT together with the TCs are expected to report to a project steering committee (PSC) which will be established in the country. The PIU will also coordinate with the regional level PIUs at EAC, IGAD during implementation.

B. OBJECTIVE

The Federal Ministry of Communications and Technology (MoCT) will house the Project Implementation Unit (PIU) for EA-RDIP and is looking to hire an individual consultant in the capacity of a Digital Infrastructure Specialist who will work within the Ministry's PIU set-up, report to the Ministry leadership and be responsible for leading the overall project preparation and implementation with respect to the Broadband Infrastructure and Access activities.

C. SCOPE OF WORK

The digital infrastructure specialist will be expected to carry out the following tasks:

- Act as primary technical advisor, lead and program manager for all digital infrastructure and broadband access related activities envisioned under the project, including cross-border terrestrial connectivity, last-mile connectivity, as well as policy and regulatory support for broadband market development;
- Support the coordination of related technical assistance and works financed by the project, collaborating with concerned stakeholders and beneficiaries to determine gaps and needs (as they evolve), provide technical advice, ensure effective planning, smooth implementation, adequate quality assurance, follow-up, maintenance and support.
- Support the Procurement Specialist on the technical elements of procurement and contract management of related activities: (i) support concerned stakeholders and beneficiaries to prepare/refine/review technical terms of reference and bidding documents, and related selections; (ii) act as contact for contracted consultants and firms in relation to the delivery

of technical assignments; (iii) liaise with parties to ensure delivery of activities against agreed timelines and technical specifications;

- Stay abreast of emerging broadband market and digital infrastructure trends, in order to advice management and project stakeholder on new developments and emerging best practices that may positively shape project design, planning etc. including conducting ad hoc research as needed;
- Support the development of the M&E framework design and set-up, maintaining an overview of progress and other detailed technical KPIs to ensure that broadband market growth leads to target subscription, device penetration figures as well as network usage and resilience etc.;
- Support development and review of enabling guidelines, policies, and procedures (e.g., in relation to access), as needed, in conjunction with relevant stakeholders, ensure that corresponding standards are embedded in activity design and delivery;
- Support development and review of technical specification/standard, plans and proposals (e.g.to reliability, climate impact, quality of service, and vulnerability, as needed, in conjunction with relevant stakeholders;
- Lead ad-hoc site-visits to review progress (e.g., scheme roll-out or infrastructure deployment), flagging issues and suggesting solutions, to ensure maximum and intended impact

D. QUALIFICATIONS:

Academic qualifications and experience

- Bachelor's degree in computer science, Computer /Network Engineering, Information and Communication Technology (ICT), Information Systems or equivalent, with a minimum 10 years of relevant work experience; or
- Master's Degree (preferred) in Computer /Network Engineering, Information and Communication Technology (ICT), Information Systems or equivalent, with a minimum of 7 years of relevant work experience.
- Industry certifications and project management certification is an added advantage.
- Knowledge of Somalia context, and the sensitivity to the underlying social, economic and cultural context in particular will be considered as an advantage.
- Experience working with development partners in the capacity of a technical specialist or project management, including World Bank, AfDB or others is advantageous

Technical competencies

- Extensive experience of designing and implementing digital infrastructure and access initiatives, incorporating best practice -prior experience of working on government and/or donor-funded and IT infrastructure related projects preferred;

- Track-record of assessing technical needs and specifications, supporting planning as well as and supervision of large, complex, and nation-wide digital infrastructure projects of a similar scale and technical nature;
- Demonstrated knowledge of the digital infrastructure and device value-chain, as well as broadband market in Somalia (demand and supply side), including market player, key challenges and opportunities for development, as well as innovative and emerging approaches to last-mile connectivity;
- Demonstrated knowledge of key regulatory and policy issues related to the telecommunication sector and broadband market development - e.g., competition, affordability, quality of service (QoS), local content, spectrum management and infrastructure sharing etc Familiarity with the digital inclusion and universal broadband access agenda, as it pertains to Somalia, including experience of working on related initiatives;
- Demonstrated knowledge of network infrastructure and related solutions (e.g., WAN/LANS), including latest trends, as well as related deployment and maintenance requirements;
- Demonstrated knowledge of emerging telecommunication technologies such as 5G;
- Some knowledge of the digital education agenda is considered an advantage, including school and higher education connectivity;
- Demonstrated knowledge of the principles, methods of ICT and infrastructure-project planning, monitoring, and evaluation;
- Ability to learn about new products, systems, applications, technologies and related trends;
- Ability to research and analyse technology problems, issues, and program requirements, as well as develop related solutions;
- Prior experience of designing digital infrastructure and access initiatives that crowd in and support the private sector is considered an advantage.
- Extensive experience of dealing with the private sector, digital infrastructure and IT providers and managing related contracts and providing related quality assurance.
- Strong technical and operational skills as evidenced in a proven track record in leading / co-leading similar initiatives;

E. DURATION OF ENGAGEMENT The Specialist shall be contracted for an initial one-year period, with possibility for extension for additional year(s) based on performance and requirement.

E. REPORTING REQUIREMENTS

- **Reporting:** The Specialist will work and report on a day-to-day basis to the PIU Coordinator. He/she will be expected to technically work in close coordination with the FGS and FMS on the Connectivity component.
- **Work plans:** The assignment will be managed through a work plan process allied to the quarterly program work plan. The Specialist will need to be available for quarterly project reviews.
- **Language:** Reports and other documents shall be submitted in English.

- **Location of assignment:** The duty station is Mogadishu, Somalia. The Specialist will be based in the PIU within the Ministry of Communication and Technology. The Specialist will however be required to work in close consultation with all activities in component one.

F. **DELIVERABLES**

- Support for preparing the broadband infrastructure related feasibility studies (including preparing TORs, supervision of firms) - within first three months of contract signature.
- Support procurement and delivery of all activities linked to digital infrastructure and broadband access aspects of the project.
- Progress report (monthly)

- G. **SERVICES AND FACILITIES TO BE PROVIDED BY CLIENT.** The Management of PIU in consultation with MoCT will provide Office space, computer, internet facilities and local transport while on official duties and any other facilities that will enable the consultant to perform the required duties with ease.