

REQUEST FOR EXPRESSIONS OF INTEREST CONSULTING SERVICES

Selection # as assigned by e-Tool: RG-T3250-P001

Selection Method: Full Competitive Selection

Country: Regional

Sector: Connectivity, Markets and Finance (IFD/CMF)

Funding – TC #: RG-T3250

Project #: ATN/KK-17018-RG

TC name: *Improving the central America-Korea connectivity*

Description of Services: The objective of this consultancy is to conduct feasibility studies to support future investment in the deployment of a submarine cable to improve the interconnection among the Central American Region and Asia. Particularly, these feasibility studies aim to explore market (including demography), forecast demand, identify the best cable routes, design the network, prepare its specifications and develop the technical, financial, and managerial studies of the network. In addition, the studies will support an assessment of the best ways that international Internet connectivity charges can be reduced from the existing levels. As one possible solution, establishing a local Internet Exchange Point (IXP), which allows content aggregation and negotiation with their international counterparts for lowering the costs, should be taken into account.

Link to TC document: <https://www.iadb.org/en/project/RG-T3250>

The Inter-American Development Bank (IDB) is executing the above mentioned operation. For this operation, the IDB intends to contract consulting services described in this Request for Expressions of Interest. Expressions of interest must be delivered using the IDB Portal for Bank Executed Operations (<http://beo-procurement.iadb.org/home>) by: December 10th, 2018, 5:00 P.M. (Washington D.C. Time).

The consulting services (“the Services”) include the evaluation of the KPK fund financed projects. The Republic of Korea, through “The Knowledge Partnership Korea Fund for Technology and Innovation (KPK)”, has been a key partner supporting the development of digital infrastructure in the LAC region. The main areas of action have been: (i) capacity building for public officers in LAC; (ii) feasibility studies to deploy new infrastructure; and (iii) strategic regulation to promote competition and investment. The expected duration for the project is 4 months.

Eligible consulting firms will be selected in accordance with the procedures set out in the Inter-American Development Bank: [Policy for the Selection and Contracting of Consulting firms for Bank-executed Operational Work](#) - GN-2765-1. All eligible consulting firms, as defined in the Policy may express an interest. If the Consulting Firm is presented in a Consortium, it will designate one of them as a representative, and the latter will be responsible for the communications, the registration in the portal and for submitting the corresponding documents.

The IDB now invites eligible consulting firms to indicate their interest in providing the services described below in the [draft summary](#) of the intended Terms of Reference for the assignment. Interested consulting firms must provide information establishing that they are qualified to perform the Services (brochures, description of similar assignments, experience in similar conditions, availability of appropriate skills among

staff, etc.). Eligible consulting firms may associate in a form of a Joint Venture or a sub-consultancy agreement to enhance their qualifications. Such association or Joint Venture shall appoint one of the firms as the representative.

Interested eligible consulting firms may obtain further information during office hours, 09:00 AM to 05:00 PM, (Washington D.C. Time) by sending an email to: Antonio Garcia Zaballos (antonioagar@iadb.org) and Enrique Iglesias Rodríguez, (enriqueig@iadb.org)

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Draft Summary of Terms of Reference

Main activities

The selected firm will:

- 1.1 **Component 1: Better understanding of market dynamics in Central American countries and Review of international best practices.** The objective of this component is to conduct a market study for every country, including an analysis of the socio-demographic and economic conditions; an analysis of current supply of international connectivity in the Region, current and future demand for telecommunication services; and; a benchmark with international best practices in the design, deployment and operation of submarine cables..
- 1.2 **Activity 1.1: Market study.** The scope to be implemented within this analysis will be: (i) study of the supply side: identify current supply of telecommunications services in each of the beneficiary countries, with a special focus on international connectivity providers; and (ii) study of the demand side: estimate the current demand for those services and forecast, considering the political, economic, socio-demographic and cultural circumstances of the 10 countries highlighted in paragraph 2.2. The study should provide estimations for households, public institutions and SMEs.
- 1.3 **Activity 1.2: International best practices.** This activity aims to gather various cases across the globe and draw lessons learned related to design, deployment, operation (business model) and governance of submarine cables. The results of this study will serve as reference models for the Technical and Economic study to be carried out in the following components.
- 1.4 **Component 2: Identification of the technical considerations for deploying the submarine cable.** This component focuses on the identification of the different routes and technologies and the best selection criteria that could be used for a potential deployment of a submarine cable between Mexico, Central America and Panamá and Asia..
- 1.5 **Activity 2.1: Developing and comparing alternatives.** This technical analysis includes, among others: (i) assessment of the existing available infrastructure across the different identified countries; (ii) identification of potential routes and landing points related to the deployment of the submarine cable; (iii) identification of the environmental conditions and potential risks of the proposed routes; (iv) assessment of the complexity and expected costs related to the deployment, operation (business model) and maintenance of the physical cable in each potential route; (v) estimation of the expected traffic according to the socio-demographic and economic conditions as per the outcome from component 1; and (vi) comparison of strengths and weaknesses of each option.

- 1.6 **Activity 2.2: Selection of the most feasible and desirable option.** Following the steps of the activity 2.1, the structure and route of the submarine cable will be decided. And based on the results, a deployment and execution plan will be developed along with the specific requirements in terms of capacity and quality, .
- 1.7 **Component 3: Analyze the legal, socio-economic and financial feasibility study of the deployment and select a governance model.** The objective for this component is to conduct a legal, socio-economic and financial study on the deployment and sustainability of the network and the services to be eventually provided. Particularly, the specification of the consortium and the governance model to guarantee the success of the deployment, not only during the deployment, but also during the operation.
- 1.8 **Activity 3.1: Legal, socioeconomic and financial analysis.** This study includes: (i) legal implications associated to the deployment of the submarine cable, (ii) estimation of the required investment and annual maintenance costs; (iii) projected revenue and valuation of the different scenarios; and (iv) development of a business model.
- 1.9 **Activity 3.2: Governance model.** Evaluation and recommendations for the proposed governance model –i.e. consortium model, private model or a combination of both– will be examined, with their own advantages and disadvantages. .
- 1.10 **Activity 3.3: Recommendation for regional Internet Exchange Points (IXP).** As is often the case with reducing the costs of international internet connectivity in the developing countries, establishing and connecting regional IXPs is suggested (ITU, 2013). This activity aims to guide regional collaboration to establish a regional IXPs that would enable local internet traffic to be routed locally, saving international bandwidth and thus causing the international Internet connectivity charges to decrease.
- 1.11 **Component 4: Determine the best way to improve the terrestrial interconnection across the different countries from the Region as a way to aggregate traffic and maximize the use of the new cable.** The objective of this component is to develop a technical study including: (i) orographic study and population distribution across the potential beneficiary countries with the idea of improving the interconnection and interoperability; (ii) assessment of the existing available infrastructure to interconnect the countries; (iii) identification of technological alternatives to improve the terrestrial interconnection and interoperability across the countries; (vi) Design of a governance model for a IXP.
- 1.12 **Product:**
 - a. Analysis of the current demand for telecommunications services between each of the beneficiary countries (Mexico, Central America and Panama) and Asia (South Korea, Japan and China).
 - b. Identification of best practices from international projects related to the deployment of a submarine cable including economics, technical and regulatory aspects.
 - c. Identification of the different routes and landing points for the submarine cable as well as the cost benefit analysis related for each of them.
 - d. Description of the roadmap for the deployment of the submarine cable including the governance model and the business plan related to the investment.
 - e. Technical study including an analysis of the technical parameters to consider in the deployment of the submarine cable as well as the potential landing points and the most cost-efficient route. Identification of the stages related to the deployment plan, including the structure of the network, and the implementation schedule should also be defined. Considering the results and conclusions of the feasibility studies, the consulting firm is also expected to provide specific recommendations on the best way to aggregate traffic in Interconnection Exchange Points (IXPs), which will allow for the international Internet connectivity charges in the Region to be reduced.
 - f. Assessment on how to improve the international internet connectivity in the LAC Region