REQUEST FOR EXPRESSIONS OF INTEREST

CONSULTING SERVICES

Selection #: RG-T3044-P002

Selection Method: Full competitive

Country: Regional

Sector: IFD/CMF

Funding – TC #: ATN/KK-17005-RG

Project #: RG-T3044

TC name: Strengthening the ICT border connectivity in borders in Central America

Description of Services: The main objective of this consultancy is to support the Central American region to strengthen the ICT border connectivity in borders by promptly and secure sharing restricted goods and passenger information between countries to contribute to the trade facilitation and the safety of the society through the effective control of restricted goods and passengers, understanding differentials of infrastructure, equipment, IT security, software, and procedures required in order to secure the border cargo and passenger information in advance, and designing a detailed action plan to improve connectivity of border control agencies.

For some years, the Bank has been supporting countries in the region to address these challenges. In 2014, the Bank supported the Council of Ministers of Economic Integration (COMIECO) in the design of the "Central American Strategy for Trade Facilitation and Competitiveness with an emphasis on Coordinated Border Management." Since the approval of the Strategy by COMIECO in October 2015, the Bank has been supporting countries in the implementation of the trade facilitation measures identified therein. Currently, through technical cooperation resources ([ATN/MR-14890-RG](https://www.iadb.org/en/project/RG-T2547)), progress is being made in the implementation of short-term measures.[[1]](#footnote-1) To address medium- and long-term measures, some countries have made progress in the preparation and implementation of border reform programs, such as Nicaragua, Costa Rica and Panama ([3484/BL-NI](https://www.iadb.org/en/project/NI-L1083), NI˗G1010, [3488/OC-CR](https://www.iadb.org/en/project/CR-L1066) and [4517/OC-PN](https://www.iadb.org/en/project/PN-L1107) currently being executed).

However, to ensure the benefits of the installation of non-intrusive technology, modernization of equipment and border infrastructure, and the improvement of single windows and interoperability, it is necessary to improve the poor state of connectivity[[2]](#footnote-2) faced by border control agencies.

The connectivity problems faced by national customs systems, migration, health and safety systems translate into frequent crashes and instability in data transmission.

The objectives of this TC are: (i) identifying gaps in infrastructure, equipment, Information Technology (IT) Security and border surveillance technologies, software and procedures necessary to improve connectivity and data transmission reliability of border control agencies and regional institutions in Central America; (ii) designing a safe border management infrastructure to enhance security of critical information and enhance the control environment at the border crossings; and (iii) develop a short- and medium-term action plan to identify priorities, responsibilities and cost of interventions to improve the connectivity of border control agencies.

Link to TC Document: https://www.iadb.org/en/project/RG-T3044

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.

The consulting form will conduct the following activities:

* **Data analysis:** Identify important information stored in data center of the control agencies and analysis the capacity security, classification and reliability of the data into the data center. It will include an analysis of encryption method used when important data is stored and transmitted.
* **Identify critical technological infrastructure:** Identify critical systems which will store or transmit important data in border area. The systems that require seamless service in particular will be identified into major critical infrastructure including servers, storage hardware, cables and racks.
* **Technological Security threat analysis:** Analysis of threats and vulnerabilities on identified critical infrastructure systems. It will cover technological issues (e.g. unauthorized access, service failure), and managerial issues (e.g. information security policy, awarenessas well as a variety of information security elements, such as firewalls.
* **Design technological infrastructure protection measures:** Development of infrastructure protection recommendations to strengthen each of the critical infrastructure systems identified previous assessment. These recommendations will include the design of response strategy against external attacks and system failure, cybersecurity resilience system, and capacity building for the safety of critical infrastructure systems.
* **Operation staff:** Identify the actual profiles of the staff in charge of data center monitor operations and maintain IT and infrastructural equipment. Including recommendation of the actualization of this staff in the state of the art.

The estimated timeframe for completion is 9 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*](http://idbdocs.iadb.org/wsdocs/getdocument.aspx?DOCNUM=38988574) - GN-2765-1. All eligible consulting firms, as defined in the Policy may express an interest.

The IDB now invites eligible consulting firms to indicate their interest in providing the services. 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 (antoniogar@iadb.org) and Enrique Iglesias Rodriguez (enriqueig@iadb.org)

Expressions of interest must be delivered by November, 30th, 2019 5pm (Washington D.C. Time) using the IDB Portal for Bank Executed Operations ( <http://beo-procurement.iadb.org/home>)

Inter-American Development Bank

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

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**TERMS OF REFERENCE**

**Regional**

**Investment strategies for digital infrastructure**

**(RG-T2993)**

**Terms of Reference**

1. **Background and Justification**
	1. Inefficient border crossing management is one of the most significant factors affecting Central America's logistic performance and competitiveness. The use of inefficient control procedures and inadequate infrastructure increases costs and waiting times and reduces predictability in the movement of people and goods throughout the region. For some years, the Bank has been supporting countries in the region to identify and implement measures to address these challenges. However, to ensure the benefits of the installation of non-intrusive technology, modernization of equipment and border infrastructure, it is necessary to improve the poor state of connectivity faced by border control agencies.
	2. The connectivity problems faced by border control, migration, health, and safety systems would translate into critical issue. For example, in Nov, 2017, Juan Santamaría en Alajuela y Daniel Oduber en Liberia Airport migration system was downed in Costa Rica, and this caused huge chaos. This system down affected all the airlines’ delay and people had to wait at the airport until this issue was solved.
	3. The problems at the national level are aggravated by the recurrent weaknesses of regional information systems that deal with intraregional processes. For example, 4 countries of Central America (El Salvador, Guatemala, Honduras, and Nicaragua) had agreed to have easy cross border process, so called “Central America-4 Free Mobility Agreement, CA-4) However, when the people are trying to cross the border, the border control request to complete complicated manual paper work, which are continuously changing time to time by locally (by each counties). Also, the sharing/transferring data between borders, sometimes is not completed properly, thus it creates confusion for people who is crossing the borders.
	4. As a result, many people who are crossing the border spend more time, even some are getting fines to filing document wrongly and/or loosing document. This manual process is not only inconvenient and uncomfortable for ordinary people but also, it can be very easy target to the criminal who wants to illegally cross the border. These are one of the known issues among the Central America, and to resolve these, all the countries from Central America is putting a lot of effort modernization of border control system and network
	5. Finally, the implementation of initiatives that countries are promoting to improve border management demand a more solid and reliable information transmission. Recently Nicaragua announced that total 5 locations of border control facilities are planning to be modernized with IDB fund, and more countries are willing to modernize their system and infrastructure. These kinds of projects will be conducted a lot near future. These modernization projects imply an increase in the volume and frequency of documents transmitted electronically, placing greater pressure on national and regional information systems.
	6. One of the main historical factors causing the inadequate ICT connectivity in Central America is the lack of availability of adequate backbone infrastructure and regional interconnection points. To address this issue, six Central American countries (Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica and Panama) created the consortium called REDCA (Red Centroamericana de Telecomunicaciones) as a broadband regional operator in 2013, with the aim of using the infrastructure of the electrical regional network; SIEPAC (Sistema de InterconexiónEléctrica de los Países de América Central). Since that moment, REDCA has started provided wholesale telecommunication services in the region.
2. **Objectives**

The main objective of this consultancy is to support the Central American region to strengthen the ICT border connectivity in borders by promptly sharing restricted passenger information between countries to contribute to the safety of the people and stability of the society through the effective control of restricted passengers, understanding differentials of infrastructure, equipment, IT security, software, and procedures required in order to secure the border passenger information in advance, and designing a detailed action plan to improve connectivity of border control agencies.

1. **Scope of Services and Key Activities**

The consulting form will conduct the following activities:

* 1. Assessment of challenges
		+ Research and analysis of the operation status and development plans of existing border control systems in other countries.
		+ Research of the current operation status of border passengers and restricted passengers.
		+ Diagnose of existing and projected broadband networks in the region, with the aim of having a better understanding of the current situation.
		+ Analysis of the current demand for broadband internet at the border point and future demand for 5 years based on research studies.
		+ Review of the existing regulatory frameworks and public policies for ICT development in Central America.
		+ Gap analysis showing the differences between the current offer and demand for broadband internet at the border points.
	2. Design of border broadband infrastructure protection plan
		+ Build ICT system and establish application plan for utilizing border passenger information.
		+ Identify critical systems which will store or transmit important data in border area.
		+ Establish plans for building defense system against internal/external attacks toward border ICT system.
		+ Analysis of threats and vulnerabilities on identified critical infrastructure systems including technological issues and managerial issues.
		+ Vulnerability testing
		+ Ethical Hacking.
		+ Penetration testing. (Pen test)
	3. Development of a short- and medium-term action plan to improve the connectivity of border control agencies and region
		+ Development of public policy and regulatory recommendations for the Central American countries to lowering deployment costs and improving regional cooperation. tanto a nivel de sistemas HW y comunicaciones como SW.
		+ Development of a comprehensive plan to deploy the proposed network segments.
		+ Researching of plans for collecting major immigration information and related agencies and corporations.
		+ Analysis of projected installation and operation cost of information providing agencies and corporations.
	4. Develop the financial analysis of the proposed action plan.
		+ Development of the recommended network design, selecting the most cost-efficient technologies to deploy the improved connectivity.
		+ EMPs for the project, consistent with the Central American counties and IDB Environmental and Social safeguards and regulations.
		+ Coordination of a workshop to validate results from all studies with stakeholders.
1. **Supervision and Reporting**
	1. The client is the division of IFD/CMF. Consultants will report to Antonio Garcia-Zaballos (antoniogar@iadb.org) and Enrique Iglesias Rodriguez (enriqueig@iadb.org). The team will be available remotely or in person throughout for feedback, and will commit to timely.
1. Anticipated transmission of border control documents, coordination of migratory controls, transmission of electronic sanitary and phytosanitary certificates, registration of cargo units by radiofrequency identification devices and use of camera systems at border crossings). [↑](#footnote-ref-1)
2. Connectivity is understood as the level of consistency and reliability of quality data transmission. [↑](#footnote-ref-2)