

REQUEST FOR EXPRESSIONS OF INTEREST **CONSULTING SERVICES**

Selection #: RG-T2785-P004

Selection Method: Full Competitive Selection

Country: Paraguay

Sector: IFD/CMF

Funding – TC #: ATN/KK-16057-RG

Project #: RG-T2785

TC name: Development of Digital Infrastructure in Paraguay

Description of Services: The objective of this consultancy is to support SENATICS in the preparation of a technical study with the following components: (i) improvement of international connectivity; (ii) deployment of a Data Center and (iii) consolidation of the National Public Sector Network.

Link to TC Document: <http://www.iadb.org/en/projects/project-description-title,1303.html?id=RG%2DT2785>

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 services (“the Services”) include

Component 1: Consolidation of the National Public Sector Network (NPSN)

For the implementation of this activity, the following sub-activities will be carried out:

- i. Information gathering: (i) analysis of existing networks owned by the public sector; (ii) distribution of population and businesses and socioeconomic data (income, production, illiteracy, ...) geo-referenced; (iii) socioeconomic data (ii) geographic location and analysis of the connectivity available in the public entities that use the Internet service and services offered by SENATICS (schools, universities, clinics, hospitals, town halls and other institutions); (iii) map with coverage of private telecommunications networks (fiber networks, location of optical nodes and location of base stations with 3G / 4G capacity.
- ii. Estimation and projection of demand for broadband services and services offered by SENATICS: A methodology will be applied to estimate the expected demand, which will contribute to the dimensioning of the National Public Sector Network, as well as the international link (Activity 2) and the Data Center (Activity 3).
- iii. Design of a technical solution for the consolidation of the network and the connection of institutions and public entities currently disconnected.
- iv. Quantification of investments for the consolidation of the National Network of the Public Sector and connection of institutions and entities currently disconnected

Component 2: International Connectivity

The Government's objective is to provide the country with access to quality international connectivity and equal conditions, both in terms of quality and price, for private operators and the public sector. For this there are different technical and operational alternatives through the neighboring operators. From the acquisition of irrevocable use rights (IRUs) to the purchase of capacity services from neighboring operators.

Taking into account the results of the previously executed work, in which the different alternatives for the improvement of international connectivity were analyzed, a detailed technical study will be developed. This study should include, for each alternative, an analysis of the technical, operational, security and implementation implications, as well as an estimate of the expected investments and the associated operating costs.

Component 3: Data Center

Develop all the technical, operational, implementation and financial studies for the start-up of a TIER III certified data center, with sufficient data processing, storage and traffic capacity to offer infrastructure, platform, application and placement services with quality and guaranteed availability, in addition to the ability to interconnect network trunks and geographic points of the country not yet connected.

In addition, the following considerations should be taken into account in the design of the Data Center:

- Enable the implementation of an Internet traffic exchange point both for the interconnection of the IXP and for the public sector.
- Expansion and strengthening of the cloud infrastructure to enhance the services provided (IaaS, PaaS, SaaS).
- Enable the interconnection of network trunks and geographic points of the country not yet connected.
- Have a Network Operation Center (NOC) and a Security Operation Center (SOC), enhancing CERTpy's capabilities, with all the building, furniture and technology components for its correct operation, administration, operation and maintenance.
- Enhance the capacities of the Human Resource that will administer the Data Center, in order to face effectively and efficiently the challenges that imply the proper management of critical infrastructures of this scope

Component 4: Development of a Benefit Cost Analysis This activity will focus on developing the Benefit Cost

Analysis for all proposed initiatives, first reviewing the current IDB methodology for the CBA, and proposing changes that adapt it to the particular case of Paraguay, including detailed references to published articles and recent literature on evaluation. impact of broadband development programs. Once the methodology is established and agreed, the CBA will have to consider (i) the financial costs and revenues calculated as a result of the financial study carried out in previous activities; (ii) estimate and calculate the quantitative benefits that can be incorporated into the cost-benefit analysis; (iii) cost-benefit analysis with specific indicators such as: IRR (economic rate of return) and economic NPV; (iv) Identification of the qualitative benefits (that is, indirect benefits and positive externalities) that, although not incorporated into the numerical study, are relevant.

Component 5: Environmental and Social Analysis Preparation of environmental and social impact studies related to the proposed investments, including a detailed description of the methodology applied. To complete the environmental and social impact studies, the company will be asked to conduct field visits and public consultations. In addition to this product, the company is expected to provide recommendations on the best way to execute the project from an organization's point of view and what regulatory measures should be considered to ensure successful implementation.

IV. PROJECT MANAGEMENT

- 4.1 Prospective Consulting Firm should define and implement appropriate management mechanisms, sound planning, and resource allocation, according to the proven expertise and prior knowledge of the subject;
- 4.2 As part of this task, the Consulting Firm should also provide justification for subcontracting, if required, interact with SENATICS staff, and provide regular management reporting. This will ensure the punctual delivery of high quality results of the work within the budget allocated;
- 4.3 The prospective Consulting Firm is expected to submit to SENATICS detailed Gantt Charts and accompanying documentation with sufficient details including:
 - Scheduling of all Objectives, Outputs, and Activities within the Outputs;
 - Identification of milestones and critical activities;
 - Assignment of experts and man-days v. outputs and activities;
 - Identification of possible risks and suggestions to mitigate them;
 - Quality assurance and peer review measures to ensure high quality results;
 - Detailed information on the expertise of the contractors on the tasks and topics of this tender including references to previous, relevant projects;
 - Detailed CVs of the experts proposed to be involved in all activities of the project.
- 4.4 Based on the Gantt chart the contractor is expected to deliver the following documents regularly:
 - A brief monthly progress report on the current activities (as they are defined in the Gantt chart), information on the progress achieved, next steps, possible risks affecting project, risk mitigation measures;
 - Early warning reports, at any time, if emerging risks threaten key milestones of the project and when SENATICS need to either be informed or take a decision;
 - Prior to the kick-off meeting, the prospective contractor is expected to submit detailed Gantt charts and relevant documentation. These will be negotiated with SENATICS and will be confirmed by the Inter-American Development Bank (IDB) as final.

V. DURATION, DELIVERABLES AND ADMINISTRATIVE ARRANGEMENTS

- 5.1 Objectives, Outputs, and Deliverables of this technical assistance project are summarized and graphically presented in the Table 1.

The contractor is required to outline in the technical proposal the timeline needed to carry out the project in high quality (e.g. including a Gantt chart). In the offer, the bidder should indicate the estimated amount of man-days required to accomplish all the tasks associated with this procurement.

The estimated timeframe for completion is 3 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.

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 December, 5th, 2017 5pm (Washington D.C. Time) using the IDB Portal for Bank Executed Operations (<http://beo-procurement.iadb.org/home>)

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