



Government of Puerto Rico
Office of Management and Budget

Geographic Information Systems (GIS) Web Tool and Additional GIS Services

Notice of Professional Services Requirements

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Deadline for Submissions: **July 7, 2023**

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1. Objective

The objective of this project is to develop a complete and integrated broadband GIS visualization tool that allows for data aggregation and an open dashboard to support the Puerto Rico Broadband Program. The tool will enable users to visualize and analyze geospatial data related to broadband infrastructure, such as tower locations, network coverage, connection speeds, and other relevant metrics. The open dashboard will allow users to customize their experience and access real-time information.

2. Background

The Puerto Rico Broadband Program was created by Governor Hon. Pedro R. Pierluisi through Executive Order 2022-40. The primary purpose of this program is to coordinate, authorize, and execute the disbursement of local and federal funds assigned to Puerto Rico for the construction of broadband infrastructure. The Program will develop a 5-year Strategic Plan which will guarantee that the funds are used within the terms established to do so and will ensure that the necessary broadband infrastructure is promptly built to close the digital divide on the island.

The Program will also have the obligation to establish the necessary controls to ensure that the use of these funds is carried out in accordance with the applicable regulations. The Program will be administered by an Executive Committee that will be made up of the Government's Chief Innovation and Information Executive, an official with decision-making power from the Telecommunications Bureau, the Office of Management and Budget, the Department of Finance, and the Assistant Secretary of the Government for Innovation, Information, Data and Technology.

The Puerto Rico Broadband Program is focused on:

- Connectivity for all residential, commercial, and government structures in Puerto Rico, so that every resident of the island has access to high-speed Internet through the correct infrastructure
- Quality and speed in the connectivity that reaches the citizen at his home, business or office, guaranteeing a minimum recurring capacity of 100MPS/20MPS
- Accessibility so that the citizen can obtain high-speed Internet reliably and at an affordable price
- Basic knowledge so that every citizen can use the necessary technological equipment to connect to high-speed Internet, whether it is to connect with their government, school, doctors and/or work

3. Qualifications and Experience

A qualified Bidder should have the following minimum qualifications and experience:

- Bidder must have applicable qualifications and experience with utilizing data in various formats, census data or other publicly available data sets to map and visualize features and demographics across multiple geographic territories.
- Bidder must have applicable qualifications and experience to support the development of an integrated web browser-based GIS tool
- Bidder must have applicable qualifications and experience with providing GIS services for **CCAs** or electric or municipal utilities.

Commented [EN1]: What are CCAs?

4. Scope of Services

This Scope of Services provides an overview of the main requirements for developing a complete and integrated broadband GIS visualization tool with aggregate data and an open dashboard. The project will require collaboration between a development team and relevant stakeholders to ensure successful implementation.

Services under this Notice are expected to commence no later than July 30, 2023, and continue until June 30, 2024 ("Term").

4.1. Functional Requirements

The selected Bidder will need to provide the following:

- A web-based GIS dashboard, using a robust database, for the mapping of information by location, geographical analysis of performance data, and to improve the effectiveness of learning and adaptive management and results visualization
- Integration of geospatial data from multiple sources into a single GIS platform
- Ability to aggregate data from different broadband service providers and other relevant sources, not limited to NTIA, FCC and the US Census Bureau, among others
- Interactive visualization of geospatial data in the form of maps, charts, and tables
- Search and query functionality to access specific location-based or geographic area data
- Spatial analysis tools for measurements, coverage calculations, and population density analysis
- Filtering and sorting capabilities to efficiently explore data
- Integration of an open and customizable dashboard for users to visualize key metrics and generate custom reports
- Data and map export functionality in common formats such as CSV, PDF, images (JPEG), SVgeoreferenced file formats (Shapefile(.Shp), KMZ/KML, and GeoJSON)

4.2. Technical Requirements

- Development of the tool using state-of-the-art GIS technologies such as QGIS, Mapbox or any other open-source GIS Tool sets
- Integration with geospatial databases to store and manage aggregated data
- Implementation of security protocols to protect data confidentiality and integrity
- Design of an intuitive and user-friendly interface for easy navigation and data comprehension
- Compatibility with different platforms and devices, including desktop computers, tablets, and mobile devices
- Use of open standards to enable interoperability and integration with other tools and systems
- Software and data need to reside within the Government Cloud architecture (AWS or AZURE)

4.3. Deliverables

- Fully functional broadband GIS visualization tool can be divided into sub deliverables for agile implementation.
- Integration of aggregated data from broadband service providers and other relevant sources
- Overall creation of web based interactive mapping dashboard
- Open and customizable dashboard with key metrics and report generation
- Detailed technical documentation, including architecture diagrams, installation instructions, and user guides

4.4. Maintenance & Support

- Bidder needs to provide comprehensive maintenance and support of the full platform for a period of one year

4.5. Other

- Bidder needs to have local presence
- Bidder needs to have the ability to do on premise data or location validation
 - Bidder must be able to perform validation of premise location and attributes for broadband serviceable locations and community anchor institutions
 - Validation may require site visits to locations being validated
- The Puerto Rico Broadband Program expects that the resultant GIS dashboard will offer robust visualization capabilities and provide users with multiple mapping, spatial analysis, and pattern modeling capabilities

5. Pricing

Bidder must (a) describe in detail the compensation structure to meet the Scope of Services specified; (b) describe in detail any fees or charges for travel, telephone calls, and any other expenses anticipated to be incurred, which shall be separately billed

(NOTE: any compensation for such fees or expenses shall be at-cost, i.e., no margin, or additional fees shall be charged); and (c) describe in detail any discounts or downward adjustments that are available and the conditions for such discounts. The compensation structure can include (i) fixed price or (ii) hourly rates, in which case the Bidder must specify the rate increments for each professional who will or is expected to perform services outlined herein, and a not-to-exceed amount.

Bidder shall include a fixed price for a “minimum viable product” that includes all items in Sections 4.1, 4.2 and 4.3, and an hourly rate for ongoing maintenance and support described in Sections 4.4 and 4.5, including customization of the minimum viable product, additional GIS analysis, report generation and data management.

Bidders must include pricing information for maintenance & support of the platform for a one-year term.

Bidder may, at its option, submit one (1) alternative pricing proposal but that proposal must specify any additional amounts proposed and justify in detail the cost breakdown for each individual scope item, or by another divisible increment. OMB reserves the right, at its sole discretion, to reject or accept any alternative pricing proposal.

6. Process

6.1. Schedule

| Description | Date |
|---------------------------------|-----------------------------|
| Release of Notice | June 22, 2023 |
| Deadline for Written Questions | June 30, 2023 |
| Responses to Questions Provided | July 3, 2023 |
| Proposals Due | July 7, 2023 |
| Interviews (if needed) | July 10-11, 2023 |
| Execution of Contract | No later than July 30, 2023 |
| Commencement of Work | No later than July 30, 2023 |

6.2. Questions and Responses

Prospective bidders may submit questions regarding this Notice by email to faq@smartisland.pr.gov with “GIS Notice” in the email’s subject line. When submitting questions, please specify which section of the Notice you are referencing and quote the language that prompted the question. OMB reserves the right to group similar questions when providing answers.

6.3. Proposal Submission Deadline

Proposals should be submitted electronically on the smartisland.pr.gov website by 4:00 pm on **Friday, July 7, 2023**. It is the sole responsibility of the submitting Bidder to ensure that its proposal is received before the submission deadline. Submitting Bidders shall bear all risks associated with delays in delivery. Any proposals received after the scheduled closing date and time for receipt of proposals may not be accepted.

6.4. Proposal Evaluation Criteria

Proposals will be evaluated in accordance with the following evaluation criteria:

| Evaluation Criteria |
|--|
| Bidder's qualifications and experience |
| Bidder's approach to the Scope of Services |
| Bidder's existing tools and rapid implementation |
| Bidder's Pricing |

6.5. Evaluation Process

OMB will evaluate the proposals pursuant to internal evaluation processes. OMB may select one particular Bidder or select a combination of Bidders (with or without interviews); or conduct interviews with a "short list" of Bidders, consisting of those Bidders reasonably likely, in the opinion of OMB, to be awarded the contract. Any interview may include discussions about services offered, conflicts of interests with other clients, or fees/compensation amount or structure. Interviews may take place through written correspondence, telephone or video conference, and/or face-to-face interviews, at OMB's sole discretion.

OMB reserves the right not to convene interviews or discussions, and to make an award on the basis of initial proposals received. References may be contacted at any point in the evaluation process.

A committee of OMB staff and/or consultants will review the proposals and evaluate them based on the aforementioned criteria. OMB and its staff and/or consultants reserve the right to request additional information from Respondents on an as-needed basis during the evaluation process. OMB reserves the right to select Bidders at its sole discretion.

Following this, OMB may enter negotiations with the Respondent to expand or contract the scope of work and adjust the grant amount accordingly.

After a Bidder has been selected, OMB will negotiate a contract for execution. If a satisfactory contract cannot be negotiated, OMB may, at its sole discretion, begin contract negotiations with the next qualified Bidder who submitted a proposal, as determined by OMB. Bidders are further notified that OMB may disqualify any Bidder with whom OMB cannot satisfactorily negotiate a contract. A contract may be presented to OMB's Board of Directors for approval.

7. Proposal Requirements

Proposals shall include the following components:

- Bidder's qualifications and experience with the elements specified in Section 3 (Qualifications and Experience). Bidder must provide qualifications for all team members, including the principal, company official(s), and other personnel who Bidder anticipates will be assigned to work on behalf of OMB. This requirement includes, but is not limited to, Bidder's anticipated subcontractors or teaming partners.
- Bidder's explanation for how it plans to meet the tasks and deliverables specified in the Scope of Services section. This section must include:
 - A list of the Bidder's planned project team, who will be assigned to work on behalf of OMB, and an explanation for each project team member's role and responsibility
 - A list of subcontractors, if any, and their respective roles and responsibilities separated by task
 - Bidder must provide its pricing proposal, including the information required in Section 5, "Pricing," above. Bidder should describe any fixed fees or hourly billing rates, fees, or other compensation that Bidder may seek from OMB for services, inclusive of staff time, equipment, materials, travel, administrative/clerical, overhead and other out-of-pocket expenses, if applicable to this contract
 - If a teaming arrangement is being proposed, teaming partner or subcontractor costs should be broken out separately

8. Implementation Timeline

Estimated timeline after contract execution:

- Analysis, Design, and Definition Phase: 1 weeks
- Development and Integration Phase: 4 weeks
- Testing and Refinement Phase: 1 weeks
- Implementation and Delivery Phase: 1 week

9. Reservation of Rights

This Notice is a solicitation for proposals only and is not intended as an offer to enter into a contract or as a promise to engage in any formal competitive bidding or negotiations. OMB may, at its sole discretion, accept or reject any or all proposals submitted in response to this Notice. OMB also may, in its sole discretion, make no

award for this Notice or cancel this Notice in its entirety. In addition, OMB may, at its sole discretion, only elect to proceed with contract negotiations for some of the services included in the proposal. OMB further reserves its right to waive minor errors and omissions in proposals, request additional information or revisions to offers, and to negotiate with any or all Bidders.

OMB shall not be liable for any costs incurred by the Bidder in connection with the preparation and submission of any proposal. OMB reserves the right to waive inconsequential disparities in a submitted proposal. OMB has the right to amend the Notice, in whole or in part, by written addendum, at any time. OMB is responsible only for that which is expressly stated in the solicitation document and any authorized written addenda. Such addendum shall be made available to each person or organization which OMB records indicate has received this Notice. Should such addendum require additional information not previously requested, failure to address the requirements of such addendum may result in the proposal being found non-responsive and not being considered, as determined in the sole discretion of OMB. OMB is not responsible for and shall not be bound by any representations otherwise made by any individual acting or purporting to act on its behalf. OMB has the right to reissue the Notice at a future date.

10. Confidentiality and Public Records

Responses to this Notice shall become the exclusive property of OMB. The recommended Bidder's proposal will become a matter of public record when contract negotiations are complete and when an agreement is executed by OMB. Exceptions to disclosure may be available to those parts or portions of proposals that are justifiably and reasonably defined as business or trade secrets, and plainly marked by the Bidder as "Trade Secret", "Confidential", or "Proprietary". OMB shall not, in any way, be liable or responsible for the disclosure of any such record or any parts thereof if disclosure is required or permitted by law.

In the event OMB receives an information request for any of the aforementioned documents, information, records, and/or contents of a proposal marked "Confidential", "Trade Secrets", or "Proprietary", Bidder agrees to defend and indemnify OMB from all costs and expenses, including reasonable attorneys' fees, incurred in connection with any action, proceedings, or liability arising in connection with the information request.

A blanket statement of confidentiality or the marking of each page of the proposal as confidential shall not be deemed sufficient notice of an information request exemption, and a Bidder who indiscriminately and without justification identifies most or all of its proposal as exempt from disclosure or submits a redacted copy may be deemed non-responsive.

A Bidder's failure to request confidential treatment of material pursuant to this section and the relevant laws will be deemed by the OMB as a waiver of any right to

confidentiality that the Bidder may have had and the OMB shall not, in any way, be liable or responsible for the disclosure of any such record or any parts thereof.

11. Conflict of Interest

Bidders are required to review all applicable conflict of interest laws. You may not contact or receive information outside of this Notice process. If it is discovered that the Bidder contacted and received information from anyone other than the email address specified above and under the process specified herein regarding this solicitation, OMB may, in its sole discretion, disqualify your proposal from further consideration. All contact regarding this Notice or any matter relating thereto must be in writing and may be emailed to faq@smartisland.pr.gov with the words "GIS Notice" in the email's subject line.

12. Annex A: Data Examples

Below is a non-exhaustive list of examples of data visualization that will be required.

Municipality % of un[der]served

- Municipality
- Wards
- Sectors

Municipality Units

- Residential, Commercials and Community Anchor Institutions
- Students per Resident Units
 - K-9
 - 10 -12
 - Assoc/Bachelor
- Poverty Threshold
- Households with an internet subscription
- Households without an internet subscription

Population Breakdown

- Population
- Households
- Housing units

Form 477

- Coverage by Census Block

New FCC Broadband Data Collection data and Broadband Serviceable Location Fabric

- By ISP in every Municipio (Footprint by technology/Outside Plant)
 - Cable
 - Copper

- GSO Satellite
- Fiber to the Premises
- Licensed Fixed Wireless
- Unlicensed Fixed Wireless