

Application for Federal Assistance SF-424

Version 02

* 1. Type of Submission:

- ☐ Preapplication
☒ Application
☐ Changed/Corrected Application

* 2. Type of Application:

- ☒ New
☐ Continuation
☐ Revision

* If Revision, select appropriate letter(s):

* Other (Specify)

* 3. Date Received:

08/28/2009

4. Applicant Identifier:

5a. Federal Entity Identifier:

* 5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name: Puerto Rico Governor's Office

* b. Employer/Taxpayer Identification Number (EIN/TIN):

660433481

* c. Organizational DUNS:

118162700

d. Address:

* Street1:

PO Box 9020082

Street2:

* City:

San Juan

County:

* State:

PR: Puerto Rico

Province:

* Country:

USA: UNITED STATES

* Zip / Postal Code:

00902-0082

e. Organizational Unit:

Department Name:

La Fortaleza

Division Name:

Chief Information Officer

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

* First Name:

Juan

Middle Name:

Eugenio

* Last Name:

Rodriguez de Hostos

Suffix:

Title:

Organizational Affiliation:

* Telephone Number:

7877217000

Fax Number:

787-721-3336

* Email:

jerodriguez@fortaleza.gobierno.pr

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9. Type of Applicant 1: Select Applicant Type:

F: U.S. Territory or Possession

Type of Applicant 2: Select Applicant Type:

A: State Government

Type of Applicant 3: Select Applicant Type:

* Other (specify):

* 10. Name of Federal Agency:

Department of Commerce

11. Catalog of Federal Domestic Assistance Number:

CFDA Title:

* 12. Funding Opportunity Number:

0660-ZA29

* Title:

Recovery Act - State Broadband Data and Development Grant Program

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Island-wide

* 15. Descriptive Title of Applicant's Project:

Puerto Rico State Broadband Data and Development Grant Program

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

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16. Congressional Districts Of:

* a. Applicant

PR00

* b. Program/Project

PR00

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment

Delete Attachment

View Attachment

17. Proposed Project:

* a. Start Date:

09/15/2009

* b. End Date:

09/30/2014

18. Estimated Funding (\$):

* a. Federal	2,425,012.00
* b. Applicant	0.00
* c. State	743,620.00
* d. Local	0.00
* e. Other	0.00
* f. Program Income	0.00
* g. TOTAL	3,168,632.00

* 19. Is Application Subject to Review By State Under Executive Order 12372 Process?

☐ a. This application was made available to the State under the Executive Order 12372 Process for review on☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.☒ c. Program is not covered by E.O. 12372.

* 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes", provide explanation.)

☐ Yes☒ No

Explanation

21. *By signing this application, I certify (1) to the statements contained in the list of certifications** and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix:

* First Name: Juan

Middle Name:

Eugenio

* Last Name:

Rodriguez de Hostos

Suffix:

* Title:

Chief Information Officer

* Telephone Number:

7877217000

Fax Number:

* Email:

jerodriguez@fortaleza.gobierno.pr

* Signature of Authorized Representative:

Eileen De Jesus

* Date Signed:

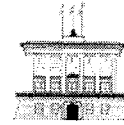
08/28/2009

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*** Applicant Federal Debt Delinquency Explanation**

The following field should contain an explanation if the Applicant organization is delinquent on any Federal Debt. Maximum number of characters that can be entered is 4,000. Try and avoid extra spaces and carriage returns to maximize the availability of space.



LA FORTALEZA



PUERTO RICO STATE BROADBAND DATA AND DEVELOPMENT GRANT PROGRAM – PROGRAM ABSTRACT

The Government of Puerto Rico (GPR) has identified as one of its main goals the digitalization of Puerto Rico and the democratization of internet access. The GPR understands that through the effective deployment and implementation of an Island-wide broadband system, the economic development of the Island can be advanced while government services become more efficient, cost effective and more accessible to constituents. Through the digitalization of Puerto Rico, new technology related jobs and businesses will be created, positioning the Island as a hub for high technology services, taking advantage of Puerto Rico's bilingual (Spanish and English) capabilities. In addition, broadband capabilities will expand technological educational tools to help educate our people, assist in the interoperability of public safety systems and improve health conditions through the implementation of health related technologies.

However, there are several obstacles to achieving these goals. Currently, Puerto Rico has an estimated internet access penetration of less than 40% and a low degree of personal computer and technology literacy, when compared to other jurisdictions in the United States. A relatively low degree of competition among internet service providers keeps connection costs high, while generating relatively low capital investments for expansion. In addition, constructing new infrastructure is costly due to Puerto Rico's mountainous topography and costs of shipping. Also, the GPR has yet to develop a formal State Broadband Plan that will integrate multidisciplinary approaches and visions for technology and broadband use on the Island. Finally, an Island-wide Broadband Map has not been developed, which would provide an understanding of the currently served and underserved areas in rural and urban areas.

The Puerto Rico Office of the Chief Information Officer (OCIO), within the Office of the Governor at La Fortaleza (the State Eligible Entity) will thus request funds from the National Telecommunications and Information Administration (NTIA) for the State Broadband Data and Development (SBDD) grant program, to adequately develop the broadband map for Puerto Rico in compliance with the technical requirements of the Notice of Funds Availability (NOFA). This map will be developed with industry-standard GIS toolsets and experienced national and locally based personnel, to deliver comprehensive and accurate broadband mapping data that will be made publicly available through an interactive website. The OCIO, as well as the Puerto Rico Infrastructure Financing Authority (PRIFA), will utilize an independent contractor to collect the broadband data from providers and generate the Puerto Rico map for this project.

The OCIO will also request funds for the planning component of broadband. The proposed planning program would be led directly by the Puerto Rico CIO, in collaboration with local stakeholders, with the main purpose of identifying service availability gaps, analyzing problems and opportunities related to broadband deployment, and establishing an Action Plan with clearly delineated priorities.

PUERTO RICO STATE BROADBAND DATA AND DEVELOPMENT GRANT PROGRAM: BUDGET NARRATIVE

Puerto Rico's Mapping Budget Narrative

The collaborative relationship between the OCIO, PRIFA and Connected Nation demonstrates a solid, effective partnership capable of optimally leveraging the immense opportunity presented by this federal grant program. In developing a project budget, the OCIO closely coordinated efforts to develop an informed and reasonable budget guided by prior mapping experience, local knowledge and supported by financing through in-kind support.

To support baseline budgetary assumptions and approach, the OCIO team called upon Connected Nation's expertise, employing this partner's methodology to develop a cost model based on well established historical precedents through similar mapping projects in other states. This sound approach to budget planning relies upon Connected Nation's rich program history adjusted in consideration of the enhanced project scope and compressed timeline for deliverables required by NTIA as well as PRIFA's local experience in managing projects.

Budget assumptions have been driven by three high-level project areas: provider and community outreach enabling data acquisition; technical expertise necessary for data encoding, mapping and updates; and reliable measures for data validation.

While costs associated with reliable data validation efforts are largely independent of state size or the number of broadband providers, expenses for outreach and data collection, as well as costs for data encoding and mapping are directly related to the state population and the number of broadband providers. More providers translate directly to more data collection and more data mapping yielding a higher expense.

The current cost model accounts for a provider relationship management cost of 0.5 hours of FTE time per provider with a reduced update expense of 0.25 hours of FTE time per provider per update for relationship management. In addition, the model contemplates an initial expense of 1 hour of attorney time per provider initially to secure appropriate data sharing relationships with a reduced rate of 0.25 hours of attorney time for each update for ongoing intellectual property and other legal concerns associated with mapping and outreach. Data acquisition for community anchor institutions has also been contemplated as part of this outreach and is based upon state population, since state populations most accurately reflects the number of facilities which must be included in the project. In addition, previous efforts to collect data in Puerto Rico have been used as benchmarks for determining the amount of effort necessary to collect this data.

Like outreach, technical expertise expenses are also driven by the number of providers. Connected Nation's cost model has normalized these expenses by studying historical, empirical costs for this technical expertise in prior broadband mapping projects and dividing those costs by the number of broadband providers involved in those projects – resulting in an historical average cost per provider. This normalized standard was then extended to Puerto Rico based upon the number of providers in that state and adjusted by a factor of 1.5x prior per provider costs to accommodate the increased scope of the SBDD program's expectations. This 1.5x factor of adjustment was based upon a technical review and detailed analysis of the enhanced effort level required for data encoding, mapping, and reporting versus previous mapping experiences as well as a technical review with senior analysts. In addition, project coordination and management

staffing resources have been budgeted to support on site operations housed with the OCIO and PRIFA. The data processing and mapping budget also reflects the budgetary impact of contractual resources required to be engaged on a short term basis to meet the compressed timeframe for the initial delivery of datasets.

Finally, reliable data validation cost is consistent with historical precedents. Statistically relevant telephone surveys, internet inquiries and verification, and other standardized validation measures employed are largely consistent and independent of a state's population or number of providers. As such, this general budget area has been contemplated as a similar cost scaled appropriately to achieve and exceed those validation measures required in the grant guidelines.

For the Non-Federal Match requirement, the OCIO proposes to provide in-kind matches that will be further described below. Although not included in the proposed in-kind match, some of the Connected Nation's staff, as well as some of their subcontractors, have agreed to contribute a documented portion of their time as in-kind contribution if needed to cover additional matching requirements.

In consideration of this scaled, empirically based cost model, this grant proposal will seek a bottom line budget of \$1,926,607 in federal grant funds for the 5-year mapping project from NTIA for the benefit of the Government of Puerto Rico. A non-federal, documented in-kind match will be provided from the OCIO of \$582,678 making the total SBDD mapping project budget \$2,509,285.

Mapping	Federal	Non-Federal	Total
a. Personnel	\$353,583	\$151,160	\$504,743
b. Fringe Benefits	\$88,395	\$45,348	\$133,743
c. Travel	\$109,280	\$-	\$109,280
d. Equipment	\$101,432	\$45,000	\$146,432
e. Supplies	\$48,803	\$-	\$48,803
f. Contractual	\$733,838	\$-	\$733,838
g. Construction (facilities)	\$-	\$-	\$-
h. Other (Outreach; Data; Facilities)	\$32,081	\$295,822	\$327,903
i. Total Direct Charges	\$1,467,412	\$537,330	\$2,004,742
j. Indirect Charges	\$459,195	\$45,348	\$504,543
TOTALS	\$1,926,607	\$582,678	\$2,509,285
Percent of Total	76.78%	23.22%	

Personnel: For the **Federal Grant Funds** portion, personnel costs primarily include a portion of Connected Nation employees' time necessary to fill the following roles related both to outreach and data encoding/mapping: Collaboration (outreach): Director of Strategic Partnerships and staff, Public Relations Director and staff; Mapping: GIS Analysts, GIS

Manager; Data Gathering, Updating & Data Validation: Wireless Business Analysts, Research Analysts; Project Management: Coordination & Reporting, Project Management, Project Coordinator, Web-Hosting Management. However, additional Connected Nation employees may need to be included, as the project budget may allow, to enable a full suite of support services for the project.

Personnel costs would account for nearly 2,200 personnel hours annually to provide the necessary long-term staff for the data collection efforts in order to identify, establish and maintain working relationships with all of Puerto Rico's broadband providers; to collect and update the data in accordance with NTIA's mapping NOFA; to produce a statewide broadband availability map; to establish data verification protocols to ensure accuracy of data and continued testing and checking of mapping data; to manage data update gathering and reporting; to develop and undertake a targeted media campaign to build awareness of consumer's ability to test their broadband speed; to process provider specific information to fulfill the NTIA reporting requirements; to provide periodic reports to the Government of Puerto Rico; and for overall project management and coordination. While actual salaries vary according to the skill sets and market environment for the given positions, the anticipated average base salary of the primary positions involved is approximately \$70,000 per year. This baseline of compensation will ensure the assembly of a qualified team to meet the challenges and take full advantage of all the opportunities presented by this program for the benefit of the Government of Puerto Rico.

For the **Non-Federal In-Kind Match**, the OCIO will provide government personnel time to perform some of the required services in the project. A Program Director will be assigned from the OCIO to oversee the development of the project. It is estimated that in the first year, 25% of the Program Director's time will be devoted to the mapping project, with an average of 11% in the following four years. Administrative Support Staff (assigned 10% of their time) will assist the Program Director.

The OCIO GIS Manager will work to ensure that the data collected as part of the project is eventually compatible with the Government's GIS Centralization Project by collaborating at least 15% of his time with the project from the beginning. A GIS technician (approximately 10% of his time) will also collaborate on this assignment. They will work in close coordination with Connected Nation and PRIFA to assure that all datasets generated and used can be integrated to the Government's GIS Centralization Project.

For Outreach efforts, the OCIO has procured the participation of the Government of Puerto Rico (GPR) Public Relations Manager and Support Staff that will provide approximately 800 hours of support throughout the five-year program to work directly with local media outlets (TV, national and regional newspapers and radio) to assure that the outreach initiatives reach a higher number of inhabitants. As part of the team, administrative support for translation validation has been estimated at approximately 715 hours through the five-year program.

Finally, the OCIO has within the office staff a transfer from the Department of Transportation and Public Works with significant experience in broadband and interoperability initiatives at the government level that will contribute approximately 10% of his time to the Mapping initiative.

Fringe Benefits: Fringe benefits are estimated to be a standard rate of 25% of total personnel costs for Connected Nation staff and 30% for Puerto Rico's in-kind match.

Travel: For the **Federal Grant Funds** portion, travel costs are comprised of mileage, meals, airfare, and hotel accommodations, as well as rental car and associated fuel costs necessary to meet the grant requirements. Other miscellaneous travel costs may be included in this category, as needed. Mileage costs will be paid at the applicable standard federal rate which is currently \$.55 per mile; meal costs are estimated at \$45 per day based on the current standard federal per diem rate; airfare costs are based on an average of \$1,200 per round-trip flight; hotel costs are based on an average of \$200 per night; and rental car and associated fuel costs are based on an average of \$90 per day. All travel costs include a 4% annual inflation adjustment. The total travel costs for the project are budgeted to be \$109,280, all paid from federal sources.

Equipment: For the **Federal Grant Funds** portion, equipment for the mapping project includes a portion of the total cost of Broadband STAT with an initial cost of \$60,000 and an annual maintenance cost of \$ 15,000. The total equipment cost for mapping is \$101,432, all paid from federal sources. This cost represents approximately 82% of the Broadband STAT cost. The remaining cost for Broadband STAT is included in the planning budget. All equipment costs include a 4% annual inflation adjustment.

For the **Non-Federal In-Kind Match**, the OCIO is allocating a portion of the hardware and software costs related to the Government's GIS Centralization Project. Items included are GIS software licenses, other software licenses and development tools, database management tools, visualization software and hardware, computers and servers, among others. It is estimated that more than \$500,000 has been invested by the OCIO for this initiative. The OCIO is proposing an allocation of \$55,000 as in-kind contribution; \$45,000 for mapping and \$10,000 for planning.

Supplies: For the **Federal Grant Funds** portion, supply costs include, but are not limited to, office supplies and office expense costs as well as costs for postage, printing, telephone and other similar items directly related to the implementation of this program. The supplies budget includes an initial amount of \$5,000 for each FTE for small equipment which is employee specific (such as a laptop computer, desk, chair, furniture, etc.) as well as \$250 per month per FTE for office supplies, small equipment replacement cost or other necessary costs as detailed above or project specific miscellaneous cost. The total supply costs are projected to be \$48,803, all paid from federal sources. Annual supply costs include a 4% annual inflation adjustment.

Contractual: For the **Federal Grant Funds** portion, contractual costs have been included for the support that PRIFA will provide the OCIO as well as for subcontractors that will be part of the Connected Nation team. For PRIFA, the OCIO has signed a Contract of Assistance to provide support services related to the mapping project through its group of consultants. PRIFA has already provided support services in the procurement process for which Connected Nation was selected as the mapping contractor and will provide legal support for the signing of the professional services contract. Also, PRIFA provided support services in an expedited manner to gather additional community anchor institution information as well as other relevant data in GIS needed to successfully develop the mapping initiative in the ambitious schedule required by the NOFA. Quality control and validation was also provided to the collected data.

For the execution of the project, PRIFA will provide to the OCIO the following staff support: (1) a local Project Manager that will dedicate approximately 12% of his time to the execution of this project in its five-year span (40% the first six months, and 10% thereafter); (2) a local GIS specialist to provide an independent data quality review to the information collected by Connected Nation; (3) a Compliance Coordinator to assist in the preparation, review and

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submittal of the required Recovery Act reports and (4) local legal support. PRIFA support services total \$395,955 for the five year project.

For Connected Nation, it is anticipated with this grant that their data gathering or other staff will be supported by consultants with a particular focus on locally-based resources, when possible, to minimize expenses and leverage local awareness. Based on historical project data from Connected Nation and a snapshot of market expense for qualified contractual resources, the estimated consultant cost related to data gathering and validation needed to produce the maps to be delivered in November, February and March is projected at \$27,497 with semi-annual update costs totaling \$2,000. This translates to a total cost over the life of the project of \$45,497.

Contractual costs also include the legal expertise essential to execute the Non-Disclosure Agreements with the providers. As outlined above, the estimated legal cost is based upon a per provider expense in securing the legal data sharing agreements needed to produce the maps to be delivered in November, February and March are \$37,400 with semi-annual update relating to ongoing legal concerns totaling \$4,675. The total cost over the life of the project is therefore \$79,475.

Research surveys and research consultant costs are included in this category to provide consistent and relevant data validation. Again, based on historical project data from Connected Nation and a snapshot of market expense for qualified contractual resources, annual research survey costs are estimated at \$50,180. This would include one residential survey followed, 6 months later, by one commercial survey for each year of the project. Survey costs amount for a total of \$206,511. In addition, a research consultant will provide services over the life of the project totaling \$6,400. All contractual costs include a 4% cost of living adjustment annually.

The total anticipated contractual costs for the complete project are \$733,838 all of which is projected to be paid by federal sources.

Others (Outreach, Data, Facilities): For the **Federal Grant Funds** portion, as an additional component of the community and provider outreach efforts, the OCIO team contemplates an education and outreach program. This program will generate awareness of the mapping endeavor, development of high-level appreciation for broadband, its utility and application, specifically to drive public interest towards the interactive map, broadband speed test and consumer-level data validation measures. This general public awareness effort has sustainable benefits in encouraging the embrace of technology and thereby improving digital literacy and interest and unique application of the broadband maps. These total outreach costs are projected to be \$32,081 from federal sources. All outreach costs include a 4% annual inflation adjustment.

For the **Non-Federal In-Kind Match**, the OCIO proposes to allocate a portion of the costs associated to the creation of several GIS datasets that are part of the Government's GIS Centralization Project, which will be essential to the mapping project. The cost for these data sets has been estimated based on the professional experience of the OCIO and PRIFA regarding the amount of effort invested in the generation, compilation and/or digitalization of the data as well as on discussions with the applicable agencies. A reasonable percentage of this cost is proposed to be allocated as an in-kind match.

Specifically, the Government's GIS Centralization Project has the following datasets that will be used in the mapping project: water/ wastewater facilities from the Puerto Rico Aqueduct and Sewer Authority (PRASA) (\$4,000,000 cost; with a proposed in-kind match of 2%, or \$80,000);

Puerto Rico State Broadband and

transmission and distribution electric power lines from the Puerto Rico Electric and Power Authority (PREPA) (\$4,000,000 cost; with a proposed in-kind match of 2%, or \$80,000); state and municipal roads as well as related transportation facilities from the Puerto Rico Department of Transportation and Public Works (PRDTPW) with selected geocoded distances (\$1,500,000 cost; with a proposed in-kind match of 2%, or \$30,000); Community Anchor Institutions and other relevant infrastructure (\$1,000,000 cost; with a proposed in-kind match of 2%, or \$20,000); and Aerial Photos from the local municipal state property tax collection agency, CRIM (by its Spanish Acronym) at a 1:1000 scale and IKONOS Satellite images from the Island (\$3,000,000 cost; with a proposed in-kind match of 2%, or \$60,000).

Overall, the OCIO proposes to contribute this data for a total of \$270,000 as in-kind match to enhance the value and functionality of the broadband maps that will be created. This total value will be allocated 90% to mapping and 10% to planning.

Also, the OCIO is allocating office space and related facilities that will be assigned to the mapping project. Specifically, the OCIO proposes to allocate small equipment (such as desks, chairs, and furniture) for up to five employees within its facilities to this project. Total cost for this office space and related facilities, based on actual expenditures by the OCIO, are approximately \$2,500 per year per employee, for a total cost of \$62,500 for the five years (to be divided 60% for mapping and 40% for planning). In addition, associated utility costs as well as parking facilities for up to five employees account for \$25,536 (to be divided 60% for mapping and 40% for planning).

Indirect Cost: Indirect costs are those that will be incurred for common or joint objectives and cannot readily be identified with a particular direct cost objective. In compliance with OMB Circular A-122, OCIO's non-federal in-kind match as well as Connected Nation's indirect costs include items, not directly associated with the project, such as telecommunications; printing; rent; utilities; depreciation; insurance; postage; hardware and software costs; general administration and other general expenses; personnel costs for administrative, accounting and human resource employees; operation and maintenance expenses; as well as grant compliance, grant financial reporting and auditing costs (when applicable). Connected Nation's indirect costs are included in the budget at a rate of 30% of their total cost. Non-federal indirect costs are included in the budget at a rate of 30% of personnel cost. This rate is proposed as a conservative estimate to properly account for the common benefits realized by the project.

Puerto Rico's Planning Budget Narrative

Planning	Federal	Non-Federal	Total
a. Personnel	\$162,270	\$52,080	\$214,350
b. Fringe Benefits	\$40,566	\$15,624	\$56,190
c. Travel	\$57,093	\$-	\$57,093
d. Equipment	\$22,265	\$10,000	\$32,265
e. Supplies	\$7,410	\$-	\$7,410
f. Contractual	\$59,280	\$-	\$59,280
g. Construction (facilities)	\$-	\$-	\$-
h. Other (Facilities)	\$-	\$67,614	\$67,614
i. Total Direct Charges	\$348,884	\$145,318	\$494,202
j. Indirect Charges	\$149,521	\$15,624	\$165,145
TOTALS	\$498,405	\$160,942	\$659,347
Percent of Total	75.59%	24.41%	

The Government of Puerto Rico will seek \$498,405 from federal sources for the planning project from NTIA. An in-kind match of \$160,942 will be provided by the OCIO making \$659,347 the total SBDD planning project budget.

Personnel: For the **Federal Grant Funds** portion, personnel costs primarily include a portion of Connected Nation employees' time necessary to fill the following roles related both to planning and research: **Broadband Planning Staff:** Project Manager and Project Coordinator; **Research Staff:** Research Analyst. However, additional Connected Nation employees may need to be included, as the project budget may allow, enabling a full suite of support services for the project. All personnel costs include a 4% cost of living adjustment annually.

For **Non-Federal In-Kind Match**, the OCIO will provide government personnel time to perform some of the required services in the project. The OCIO is allocating to the planning effort approximately 15% of the Program Director's time, 10% of the Administrative Assistant's time and 10% of the Department of Transportation and Public Works staff's time.

Fringe Benefits: Fringe benefits are estimated to be a standard rate of 25% of total personnel costs for Connected Nation staff and 30% for Puerto Rico's in-kind match.

Travel: For the **Federal Grant Funds** portion, travel costs are comprised of mileage, meals, airfare, and hotel accommodations, as well as rental car and associated fuel costs necessary to meet the grant requirements. Other miscellaneous travel costs may be included in this category, as needed. The assumptions are the same as those described in the mapping portion of the budget narrative. The total travel costs for the project are budgeted to be \$57,093, all paid from federal sources.

Equipment: For the **Federal Grant Funds** portion, equipment for the planning project includes a portion of the total cost of Broadband STAT with an initial cost of \$60,000 and an annual maintenance cost of \$15,000. The total equipment cost for planning, \$22,265, all paid from

federal sources, represents approximately 18% of the Broadband STAT cost. The remaining cost for Broadband STAT is included in the planning budget. All equipment costs include a 4% annual inflation adjustment.

For **Non-Federal In-Kind Match**, the OCIO is allocating a portion of the hardware and software costs related to the establishment of the Government's GIS centralization project. As described in the mapping portion of the budget narrative, an allocation of \$10,000 has been allocated for the planning effort.

Supplies: For the **Federal Grant Funds** portion, supply costs include, but are not limited to, office supplies and office expense costs as well as costs for postage, printing, telephone and other similar items directly related to the implementation of this program. The assumptions are the same as those described in the mapping portion of the budget narrative. The total supply costs are projected to be \$7,410, all paid from federal sources. Annual supply costs include a 4% annual inflation adjustment.

Contractual: For the **Federal Grant Funds** portion, research surveys and research consultant costs are included in this category to provide consistent and relevant data validation. Again, based on historical project data from Connected Nation and a snapshot of market expense for qualified contractual resources, annual research survey costs are estimated at \$50,180. This would include one residential survey followed, 6 months later, by one commercial survey for each year of the project. Survey costs amount for a total of \$53,280. In addition a research consultant will provide services over the life of the project totaling \$6,000. The total contractual costs are \$59,280, all paid from federal sources. All contractual costs include a 4% cost of living adjustment annually.

Others (Data, Facilities): For the **Non-Federal In-Kind Match** portion, 10% of the allocated Government's GIS Centralization project data set will be distributed to the planning portion of the Project.

Also, as stated in the mapping portion of the budget narrative, the total cost for this office space and related facilities, based on actual expenditures by the OCIO, is approximately \$2,500 per year per employee, for a total cost of \$62,500 for the five years (to be divided 60% for mapping and 40% for planning). In addition, associated utility costs as well as parking facilities for up to five employees account for \$25,536 (to be divided 60% for mapping and 40% for planning). Finally, rental costs for government conference room facilities are estimated to be approximately \$5,400 for the duration of the project.

Indirect Cost: As described in the mapping portion of the budget narrative for the **Federal Grant Funds** as well as the **Non-Federal In-Kind Match** portion, Connected Nation's indirect costs are included in the budget at a rate of 30% of their total cost. Non-federal indirect costs are included in the budget at a rate of 30% of personnel cost.



LA FORTALEZA



PUERTO RICO STATE BROADBAND DATA AND DEVELOPMENT GRANT PROGRAM: PROGRAM NARRATIVE

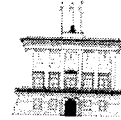
1 INTRODUCTION/EXECUTIVE SUMMARY

This application is submitted by the Puerto Rico Office of the Chief Information Officer (OCIO), within the Office of the Governor at La Fortaleza. The OCIO, recently created through Executive Order (Number OE-2009-009), is the centralized entity responsible for the implementation and supervision of all initiatives related to information technology (IT) and interoperable communications (IC) amongst all levels of the government, including infrastructure and public policy design and implementation.

The Government of Puerto Rico (GPR) has identified as one of its main goals the digitalization of Puerto Rico and the democratization of internet access. Currently, Puerto Rico has a lower per capita income than all the states, an unemployment rate that is higher than other jurisdictions, and a need to develop a new model for its economy. The GPR understands that through the effective deployment and implementation of an Island-wide broadband system, the economic development of the Island can be advanced while government services become more efficient, cost effective and more accessible to constituents. Through the digitalization of Puerto Rico, new technology related jobs and businesses will be created, positioning the Island as a hub for high technology services, taking advantage of Puerto Rico's bilingual (Spanish and English) capabilities. In addition, broadband capabilities will expand technological educational tools to help educate our people, assist in the interoperability of public safety systems and improve health conditions through the implementation of health related technologies.

However, there are several obstacles to achieving these goals. Currently, Puerto Rico has an estimated internet access penetration of less than 40% and a low degree of personal computer and technology literacy, when compared to other jurisdictions in the United States. A relatively low degree of competition among internet service providers keeps connection costs high, while generating relatively low capital investments for expansion. In addition, constructing new infrastructure is costly due to Puerto Rico's mountainous topography and costs of shipping. Also, the GPR has yet to develop a formal State Broadband Plan that will integrate multidisciplinary approaches and visions for technology and broadband use on the Island. Finally, an Island-wide Broadband Map has not been developed, which would provide an understanding of the currently served and underserved areas in rural and urban areas.

Following are some relevant demographic and internet-related data that highlight the need for Puerto Rico to receive the available funds to further develop the necessary broadband infrastructure.



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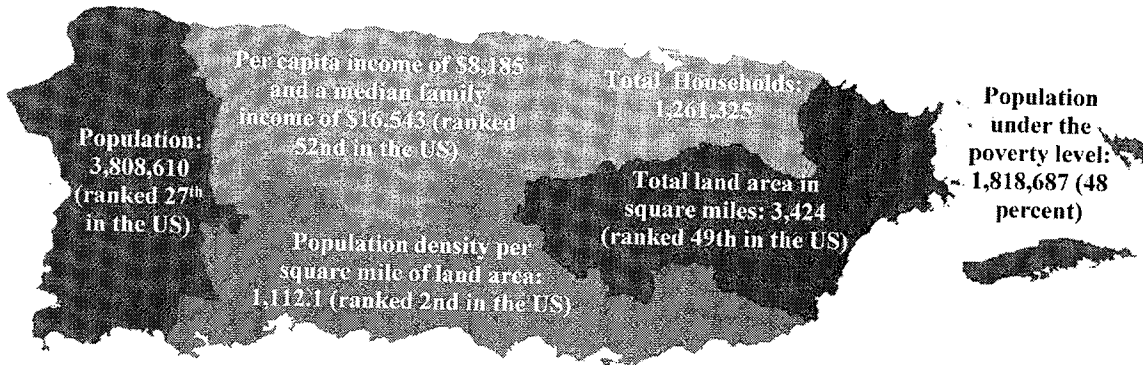


Figure 1. Relevant Demographic Data for Puerto Rico

Government Accountability Office: "Broadband Deployment Plan Should Include Performance Goals & Measures to Guide Federal Investment", May 2009

- The United States is currently ranked 15 with 25 broadband subscribers per 100 inhabitants while Denmark is ranked 1 with 37
- In contrast, Puerto Rico currently has 11 broadband subscribers per 100 inhabitants

Rankings in the Travel and Tourism (TT) Competitiveness Index 2008 published by World Economic Forum

- Overall, Puerto Rico is ranked 46, while the US is 7 out of 130
- In Information & Communication Technologies (ICT), Puerto Rico is ranked 50 while the US is ranked 13 out of 130

Rankings in the Global Competitiveness Index for 2007-2008

- Puerto Rico is ranked 36, while the US is 1 out of 131

Figure 2. Relevant Indicators Highlighting The Need For Further Broadband Development In Puerto Rico To Stimulate Economic Development



High-speed lines with over 200 kbps in at least one direction (data as of Dec 2007, based on data reported on FCC Form 477)

- The United States has **73,976,483** residential high-speed lines while Puerto Rico has **413,322**
- This represents a **40%** relationship between high-speed line per 2000 US Census population for the US and **12%** for Puerto Rico
- The number of broadband lines and households in Puerto Rico, represent an approximate penetration of **33%**

Zip Codes and Service Providers (data as of Dec, 2007, based on data reported on FCC Form 477)

- Number of zip codes with ten or more high-speed line service providers: Puerto Rico **1%** while the United States has **24%**

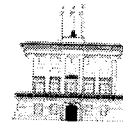
Internet Velocity: Communication Workers of America Report on Internet Speeds 2008

- Puerto Rico has a median download speed of **499 kbps** and is currently ranked **52 out of 52** in the US.

Figure 3. Relevant Internet Use Data

The OCIO proposes to establish a Broadband Mapping and Planning Program in compliance with the National Telecommunications and Information Administration's (NTIA) Notice of Funding Availability (NOFA) for the State Broadband Data and Development grant program (SBDD). This program integrates experienced national and locally based personnel to deliver comprehensive and accurate broadband mapping data, develop state-level broadband maps and aid in the development and maintenance of a national broadband map. The maps will serve as the main tools for the development of a Broadband Planning Initiative focused on closing the digital divide and the democratization of information in Puerto Rico. It is the intent of the OCIO that through this grant, a connected Puerto Rico will be developed and that an increase in broadband penetration to at least 60% within the next three years will be achieved.

The deliverables will include industry-standard GIS toolsets and datasets as required by the NTIA, as well as web-based, interactive broadband maps available to state and local government officials, consumers, broadband providers, community development



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organizations, researchers, and other stakeholders. The creation of an interactive website will ensure accessibility of the broadband data as well as increasing awareness of the mapping program and the benefits of broadband. It will also play an important role in ensuring local validation of the mapping data. The website will include a portion of it in Spanish, so that the communication outreach initiative reaches a higher number of inhabitants.

The OCIO has assembled a highly qualified team (the OCIO Team) to execute this project. Connect Puerto Rico, LLC (a subsidiary of Connected Nation; the company selected by the OCIO through an RFP process to collaborate in this project) has been designated as the primary sub-grantee. Connected Nation will be responsible for developing the Broadband Map for Puerto Rico, supporting the planning efforts and complying with the requirements of the NOFA. Connected Nation will incorporate into its work team local resources to assure that the knowledge and intricacies of the Puerto Rico telecommunications market are incorporated, and adequate technology transfer to local resources is developed. In compliance with the NOFA, Connected Nation will develop the mapping project under the strictest of secure protocols for data collection and analysis. In particular, Connected Nation will perform tasks in the most secure and confidential manner to maintain full compliance with the confidentiality standards, and will collect and provide to the NTIA the required datasets as prescribed in *Technical Appendix A and its subsequent amendments*. This data collection will support the construction of a national broadband map to be developed and maintained by the NTIA.

In addition, the OCIO has selected the Puerto Rico Infrastructure Financing Authority (PRIFA, or AFI by its Spanish acronym) to assist in a variety of tasks including program management, compliance, reporting support, procurement support, translation support and validation, limited legal counsel, technical guidance, independent validation of collected GIS data, overall coordination and general consulting support. PRIFA has already signed a Contract of Assistance with the OCIO as the basis for these services.

The scope of this project will span five (5) years according to the following timeline:

- November 1, 2009 - Delivery of a substantially completed dataset (as described in the NOFA) or partial dataset.
- February 1, 2010 - Delivery of a substantially completed set of broadband mapping data.
- March 1, 2010 - Delivery of a completed set of all broadband mapping data.
- September 1, 2010 to 2014 - Semi-Annual updates.

1.1 Description of Unserved/Underserved and Prioritization of Grant Funds

Since the purpose of this project is to collect data and produce a GIS map of broadband availability across Puerto Rico, it is not yet possible to include a comprehensive description of unserved and underserved areas, as those areas will be identified throughout the course of this project. However, in advance of a comprehensive description, Puerto Rico as a whole can be considered as underserved, based on the penetration data presented above.



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Within the Island, there are many pockets of served, underserved and unserved areas (or census blocks) that will be identified as the Mapping Project progresses. Therefore, over the course of the project, the OCIO will work to identify and prioritize unserved and underserved areas. The OCIO proposes to employ Broadband STAT, a cost efficient and open access GIS solution for broadband mapping, accessibility, and analysis that will enable Puerto Rico to fully utilize and analyze the broadband data, maps, and models in association with a host of other GIS data. The Broadband STAT solution will enable a comprehensive understanding of the broadband landscape and efficient prioritization of unserved and underserved areas, as defined by NTIA, based on criteria specifically designed for Puerto Rico. The OCIO has already initiated a demographic analysis by census block. The following figures present the population of Puerto Rico by census block, including municipalities and state roads.

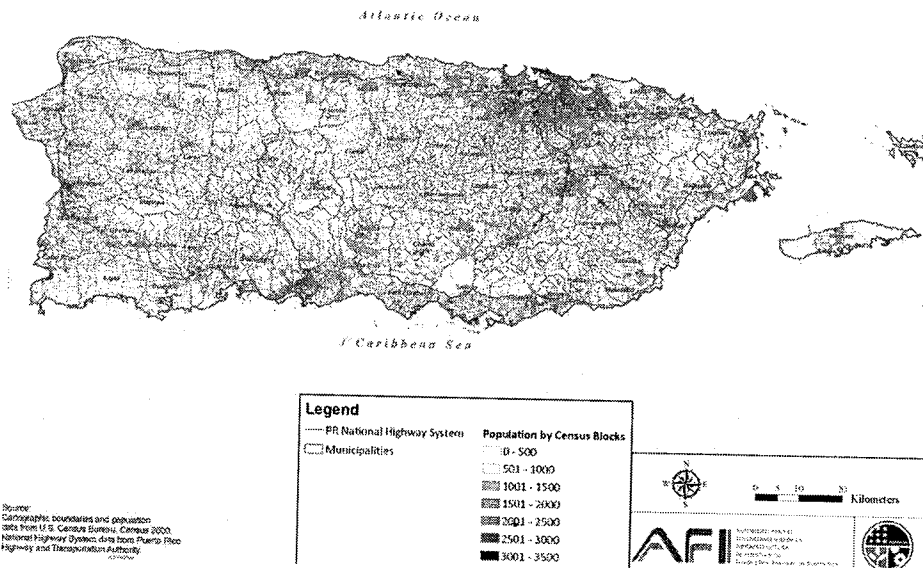


Figure 3. Census Block Map for Puerto Rico

As stated in the NOFA, a preliminary prioritization of grants should be included in this application. In this regards, it is the interest of the GPR that the following types of projects be established as priority broadband projects:

- Projects focused on the deployment in urban underserved and unserved areas.
- Projects focused on the deployment in rural areas, with particular attention to agricultural areas.
- Projects that result in at least two ISPs offering services to every potential customer.
- Projects that lower the price of internet access for end users.
- Projects that consider a definition of broadband speeds in the 3Mbps or higher range, and that recognize that the experience/content/application determines the necessary speed.



- Projects focused on the last mile, through fiber or wireless broadband connectivity. Even though Puerto Rico already has three (3) carriers with island-wide fiber backbones, proposals for laying backbone fiber along main highways or backhauling remote areas wirelessly should also be considered.
- Projects focused on the development of highly attractive content (education, entertainment, public safety, health, tele-presence), in English and Spanish, that exploit broadband speeds to the fullest, and that will drive adoption.
- Projects that include Open-Access modality to the home (copper, fiber or wireless) should receive special attention.
- Projects that include deployment of computers in public or quasi-public locations, such as libraries, schools, community centers, nonprofit organizations that are accessible to large groups of people that incorporate all the necessary services, including purchase of devices, installation, configuration, LAN and WAN connectivity, to meet the stated needs.
- Projects that offer attractive and non-predatory financing options for the purchase of computers or internet connectivity devices, be they associated with the provision of internet access services or not.
- Projects that offer structured, graded and certified personal computer use and internet use training for teachers, students, adults and seniors, as well as high-risk populations such as displaced workers, prison inmates and others.
- Projects that provide a state-wide approach and include multidisciplinary or multiagency components should be favored over others that are purely addressing one component, such as infrastructure, content, devices or training.

2 REVIEW CRITERIA

2.1 DATA (30%)

2.1.1 Data Gathering

According to data from the *Junta Reglamentadora de Telecomunicaciones de Puerto Rico* (JRT, by its Spanish acronym; also known as the Puerto Rico Telecommunications Regulatory Board), there are approximately fifty four (54) certified and registered telecommunication providers in Puerto Rico (JRT-2002-OA-0002). Possibly not all of these providers are currently active or providing some type of internet access. According to the FCC, there are fourteen (14) providers of high-speed lines of over 200 kbps in at least one direction as of December 31, 2007 in Puerto Rico.

One of the first tasks of this project will be to confirm the number of internet service providers in Puerto Rico. Once confirmed, a legal relationship for each provider must be established, as well as a data transfer and data updating protocol, data analysis, and a verification and approval process, in order to meet the goals set by the NTIA mapping programs. The OCIO will take advantage of Connected Nation's experience executing mapping projects in states with a large number of providers (over 340 providers), so that the lessons learned can be applied to Puerto Rico with the purpose of complying with the ambitious project schedule.



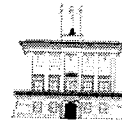
Connected Nation has strong relationships with the major telecommunications and cable associations in the country, which have been instrumental in reaching smaller, single-state telecommunications and cable providers. The following national trade associations are members of Connected Nation's Board of Directors: USTelecom, National Cable and Telecommunications Association, CTIA (the Wireless Association). Connected Nation is a member of WCAI and has informal collaborative relationships with OPASTCO and the National Telecommunications Cooperative Association, which represents hundreds of small corporate and cooperative providers across the country.

The OCIO will leverage all the existing relationships brought by Connected Nation, PRIFA and the JRT to ensure that the program quickly identifies and establishes relationships with key players in the broadband market, so that the relevant data can be procured. The OCIO is confident that deliveries can be made within the dates specified in the Mapping NOFA.

The proposed mapping process for Puerto Rico begins with a street-level inventory of broadband offerings in a community. This information is collected directly from broadband providers, who voluntarily collaborate through a one-on-one dialogue to ensure their service offerings are accurately represented on the map. This collaborative process is important and extensive because, based on Connected Nation's mapping experience as well as multiple initial meetings held by the OCIO and PRIFA with local providers, it is known that different broadband providers house data in a multitude of ways based on the type of technology used, the sophistication of each provider's storage system, and the resources available. Given this reality, it is impossible to achieve a highly detailed, street level broadband map through a standardized, rigid, one-size-fits-all data collection process. For example, the OCIO and PRIFA have already determined that many local providers do not have address-level information stored in a systematized format that could be readily used to generate a map.

In order to adapt to this scenario, a flexible process has been developed to work directly with each provider in order to understand which technology has been deployed and how data is stored. Providers will be assisted in gathering, identifying and contextualizing data in accordance with the geography and topography of Puerto Rico, in lieu of translating the data into GIS format.

A strategy will be defined for each provider and platform to determine translation of any limited network information into preliminary GIS format. Work will be performed on the field directly with providers to identify equipment locations and geographical coordinates, understand network variables and topography/terrain constraints, and run tests to determine which households and businesses have broadband service available from a particular provider and which ones do not. The goal of this iterative process is to obtain a "first approximation" of the service territory for each provider, using wireless and/or wireline technologies. A GIS shapefile will be produced for each provider, which will be shared with the individual provider for approval. Once the provider ascertains that the service territory estimate is indeed accurate, the information will be added to the aggregate broadband inventory map for Puerto Rico. This process will be repeated for each provider until a comprehensive island-wide depiction of broadband availability by platform is achieved.



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This data gathering protocol produces a comprehensive, granular, accurate inventory of the broadband landscape within a state. Such base layer data will allow the production of detailed broadband inventory maps that provide state-wide data layers by type of platform, as specified by the NTIA. The maps will be available online in an interactive mode that will allow access by various data layers that may include the street, census block, census block group, census tract, city boundary, ward boundary and/or municipal boundary.

The above process only relates to the broadband infrastructure component of the maps to be produced. However, the proposed maps will also include information from the proposed local consumer and business surveys in order to understand broadband adoption, computer ownership, and the barriers to broadband and computer adoption in each community and local area.

In addition, relevant GIS data from various sources will be included in the maps and/or websites. In this regard, the OCIO will take advantage of, and expand upon, the efforts that are currently in progress to generate, gather and centralize GIS information for the use of government agencies and the general public (Islandwide GIS Project). This project includes the purchase of hardware and software for its successful implementation and deployment.

The consolidation of relevant GIS information from multiple data sources is underway. These data sets include demographic information (from the US Census Bureau and the Puerto Rico Planning Board), water/wastewater facilities from the Puerto Rico Aqueduct and Sewer Authority (PRASA), transmission and distribution electric power lines from the Puerto Rico Electric and Power Authority (PREPA), state and municipal roads as well as related transportation facilities from the Puerto Rico Department of Transportation and Public Works (PRDTPW), a Digital Elevation Model (DEM) generated from a complete island photogrammetric study, a complete island satellite image from IKONOS, parcel data developed for the *Centro de Recaudación de Ingresos Municipales* (CRIM, by its Spanish Acronym; or local municipal property tax collection agency), among many others.

These datasets will be used to analyze household density and other demographics in unserved/underserved areas, to determine potential collocation resources such as cell towers and water system facilities, to determine the proximity of community institutions such as libraries, schools, and hospitals; and proposed infrastructure such as roads, water projects, sewer lines and power lines. In addition, the effective use of these data sets will greatly enhance the capacity to validate the gathered data. Since these data sets, as well as the overall centralized GIS project, will be essential to the adequate development of the broadband mapping initiatives, the cost associated with them is proposed to be included as an in-kind contribution from the Government of Puerto Rico. Further details are included in the budget narrative section.

The OCIO is fully aware that local providers are not required to provide detailed data related to the broadband mapping initiative to any entity (OCIO, Connected Nation, or any other state agency). Due to the extremely competitive state of the telecommunications industry in Puerto Rico, Connected Nation was selected as an independent party to gather confidential data information. Because of Connected Nation's public-private partnership model, confidentiality of sensitive provider data is maintained. The OCIO expects that this legal construct



encourages service providers to willingly collaborate with the mapping program and help Puerto Rico determine, in detail, both the broadband gaps and the particular challenges to deploying broadband in a particular area. The Non-Disclosure Agreements that Connected Nation will execute with local broadband providers will satisfy all requirements outlined in the NTIA SBDD NOFA.

As a result, while broadband provider confidentiality is preserved, the resulting maps are highly detailed and granular. This rich data provides critical information for the development of sound public policy and network expansion business plans, including descriptions of household density and relevant demographic and economic information about unserved areas.

As part of the mapping program, the OCIO Team will communicate and coordinate with NTIA to ensure that NTIA's technical specifications are being followed, so that the inventory map of Puerto Rico can be rolled up into the nationwide inventory map by February 2011.

The OCIO Team will process and analyze provider data collected in order to fulfill the reporting requirements specified in the *Technical Appendix A* of the NTIA Mapping NOFA, including:

- **Broadband Service Availability in Provider's Service Area**

- (a) Availability by Service Address--Service Associated with Specific Addresses and*
- (b) Availability by Shapefile--Wireless Services not Provided to a Specific Address*

The OCIO Team has read, understands and will fully comply with this requirement and record format, in accordance with the NOFA and its clarification. First, the OCIO will work directly with providers to gather the relevant network infrastructure data, process the data in GIS format, and verify with each provider that the resulting GIS file is an accurate representation of that provider's broadband service territory and capabilities. Second, the resulting geographic broadband footprint and associated data will be compared against address files and Census Bureau data to produce census block level records for each fixed broadband provider, in accordance with the NOFA and its clarification. For mobile networks, wireless data through propagation studies will be translated into GIS shapefiles for submission to the NTIA, in association with the data required in the NOFA and its clarification.

In accordance with the NOFA clarification, advertised upstream and downstream speeds will be collected from providers and reported at the Metropolitan or Rural Statistical Area. Furthermore, data will be obtained for "Typical Upstream and Downstream Speeds" from two complementary methods: statistical sampling and online consumer speed test sampling.

- **Residential Broadband Service Pricing in Provider's Service Area**

The OCIO Team has read, understands, and will fully comply with this requirement and record format, in accordance with the NOFA and its clarification. The information needed to fulfill these reporting requirements will be collected directly from providers based on advertised speeds and number of subscribers. In the case where this is not possible, primary data on advertised speeds will be gathered and analyzed in combination with data from online consumer speed tests, in order to generate an estimated weighted average speed.

- **Broadband Service Infrastructure in Provider's Service Area**



The OCIO Team has read, understands, and will fully comply with this requirement and record format, in accordance with the NOFA and its clarification. Data will be gathered on middle-mile and backbone interconnection points directly from providers to the extent necessary for producing the required data and for verification purposes, in accordance with the NOFA and its clarification.

- **Community Anchor Institutions**

The OCIO Team has read, understands, and will fully comply with this requirement and record format, in accordance with the NOFA and its clarification. The OCIO Team will compile, process and geocode private and public data sources in order to meet the reporting requirements defined by NTIA. Once the NOFA was published, the OCIO initiated efforts to gather the requested information for Community Anchor Institutions, as defined in *Technical Appendix A*, through direct contacts with each of the relevant public agencies and/or private entities responsible for them. The entities that have already been contacted, and for which information has been preliminarily compiled, include the Puerto Rico Department of Education, Department of Health, Police Department, Fire Department, among others. This effort will continue throughout the development of the Mapping Project. The following map presents a graphical depiction of the collected data.

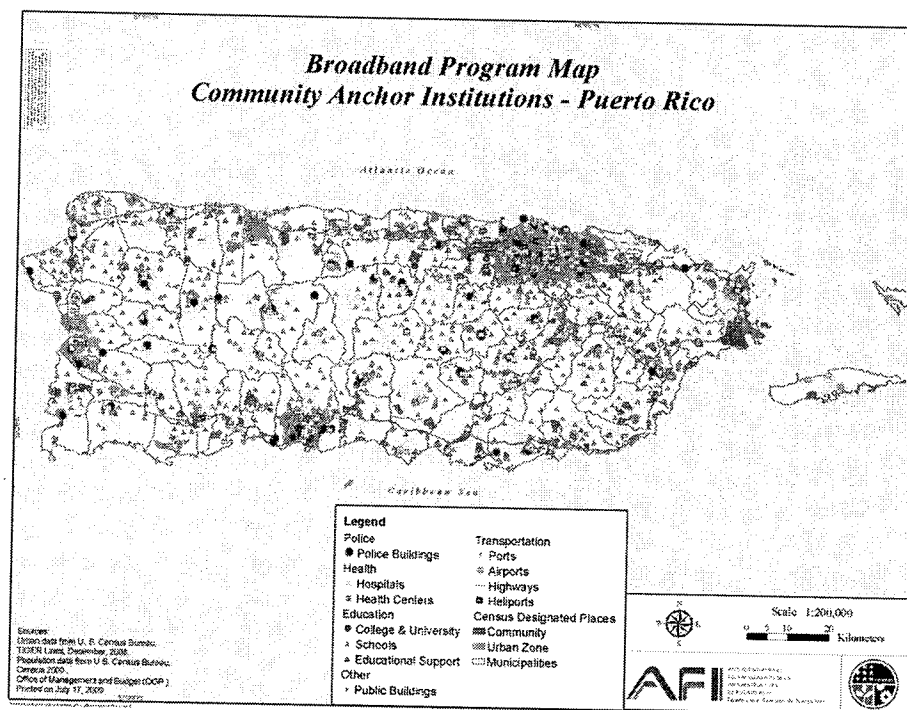


Figure 4. Preliminary Community Anchor Institution Map for Puerto Rico

Such information will complement other datasets, such as the state's broadband availability inventory, in order to produce an island-wide comprehensive database of community anchor institutions and their broadband capabilities. To complement these datasets, a survey will be performed for all community anchor institutions to gather information regarding broadband



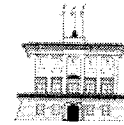
subscription, technology type and speeds. Subject to any confidentiality constraints, information will be uploaded onto the interactive broadband maps, in order to provide policymakers and the general public a pragmatic tool for understanding the broadband resources available to these anchor institutions, and ascertain where the broadband infrastructure challenges to reach these institutions remain.

If for any reason, broadband providers do not provide any data, the OCIO Team will employ other means, such as developing best estimates of coverage through statistical analysis, field recognitions and/or a combination of other methodologies.

2.1.2 Accuracy and Verification

Source data verification is a critical component of the broadband inventory mapping program that will be developed for Puerto Rico. Broadband inventory maps represent a visual, geographic estimation of broadband coverage within a territory. As such, maps are an estimation of the true extent of the network, and present inaccuracies that can only be identified and corrected as the data is used, analyzed, and verified. Data verification is, therefore, a critical component of any effective mapping program. The OCIO team will employ and promote a number of mechanisms to ensure the accuracy of broadband maps:

- OCIO Team engineers will conduct extensive field tests, and the results of those tests will be documented and compared against provider data to ensure accuracy. In instances where a discrepancy is identified (e.g. a datum shift of coordinates), the agency or provider will be contacted to outline and implement corrective actions. Random quality control checks will be performed to validate the latitude/longitude of infrastructure such as digital subscriber line access multiplexers (DSLAMs), broadcast towers, and other vertical assets such as water towers. Quality control checks are also conducted via a spectrum analyzer to verify the frequencies being used by known unlicensed WISPs or licensed providers. In addition, speed tests are conducted from the field using all known platforms (e.g. fiber, cable modem, DSL, fixed wireless, mobile wireless, etc.).
- In addition to internal field tests, a transparent system for external verification of broadband availability data will be established. This verification system includes a web-based, interactive mapping portal where end users will be able to contrast the data on the map with the reality on the ground. . Furthermore, Connected Nation's mapping also facilitates a broadband telephone hotline that encourages consumers to document if they want broadband and cannot get it, or to notify if end users believe that a map contains any inaccuracies. All confirmed inaccuracies will be corrected immediately. This method of third-party validation has proven to be an effective means to verify the mapping data and to engage citizens and local leaders in the broadband future of their communities. For reference purposes, through the organization's interactive map sites, Connected Nation has received 5,146 inquiries from May 2008 to April 2009.
- Statistical telephone surveys will also be conducted in Spanish among residential consumers and businesses to inquire about broadband availability and speed. These surveys will check a statistically significant sample of all addresses,



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including a significant sample of rural addresses, as required on page 30 of the NTIA mapping NOFA. As part of the planning grant, the OCIO proposes to use these same validation surveys to ask residents and businesses additional questions about their use of the internet, the demand for faster broadband service, and the barriers to computer ownership and broadband adoption. All of this data will be analyzed against demographics in order to understand availability and adoption in relation to income, education level, race, ethnicity, age, and other demographic characteristics.

2.1.3 Accessibility

Data will be made available to the general public through an interactive broadband inventory map. A website will serve as the public portal for the interactive broadband inventory map, downloadable maps, complementary datasets, third party verification processes, broadband inquiries, questions about the map, and FAQs about the program, among other features. The information presented on this interactive site or any other public format will be in full compliance with the Confidentiality Requirements outlined in *Sections III* and *IV* of the NTIA SBDD NOFA. In addition, although the generated maps will be in English, portions of the website will be available in Spanish to facilitate access to a significant number of users on the Island.

The following screenshots are examples of existing interactive maps produced by Connected Nation. The first screenshot from Connect Minnesota's interactive site presents "drilled down" information of the broadband inventory map by type of platform. The second screenshot from Connected Tennessee's interactive site presents information regarding the number of households per Census Block in unserved areas at a local level.

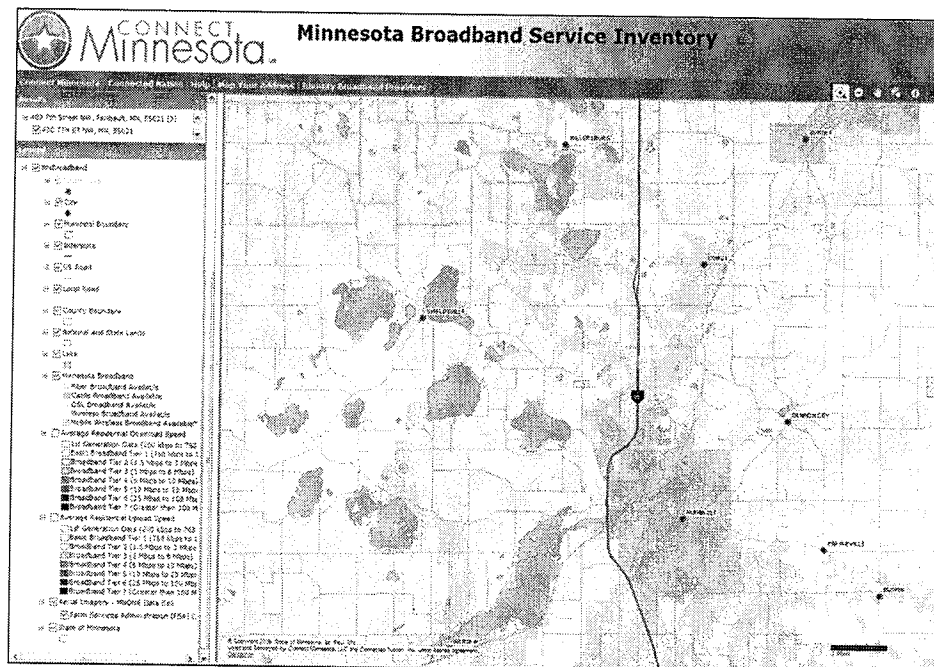


Figure 5. Example of Interactive Map based on Type of Platform

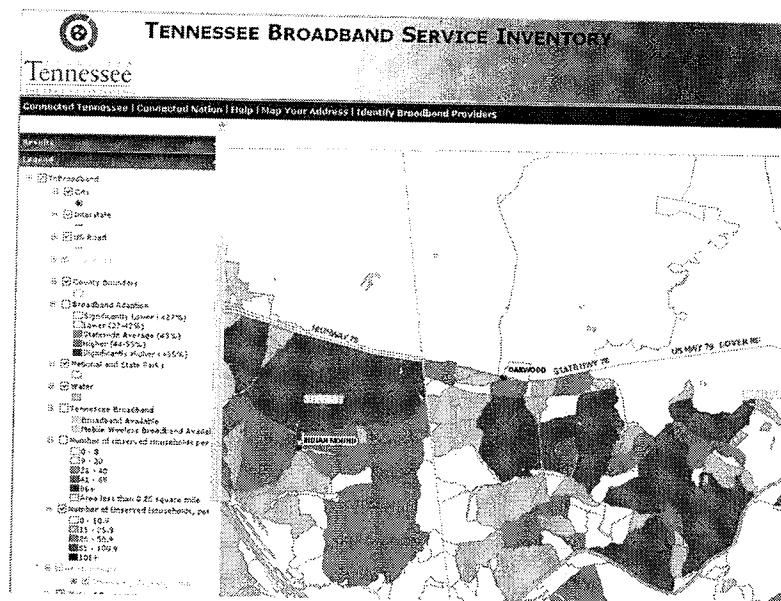
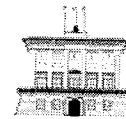


Figure 6. Example of Interactive Map based on Number of Households per Census Block in Unserved Areas at a Local Level

Connected Nation developed its first interactive broadband inventory map in 2007. Since then, these interactive broadband maps have been continually updated and their functionality expanded to provide more granular, verifiable, and pragmatic information to consumers, providers, public policymakers, and the public at large. In order to enable full data transparency and empower the residents of Puerto Rico with the necessary tools to define targeted policies and programs to expand broadband services and adoption rates across the state, Connected Nation has developed with its strategic partner, ESRI, a multi-functional, user friendly platform called Broadband STAT.

Broadband STAT is the next generation in broadband mapping, providing a comprehensive mapping and planning tool for states to manage broadband stimulus projects and activities through the ARRA. Using ESRI's ArcGIS Server and its API mapping technologies to incorporate broadband mapping and survey data with demographic and topographic data from ESRI, the Census Bureau, and the other local data sources previously described in this application, Broadband STAT provides not only a user-friendly GIS viewer to understand and track broadband deployment over time, but also an analytical tool for prioritizing unserved and underserved areas, evaluating and tracking stimulus projects, and enabling taxpayers with full transparency and accountability of broadband stimulus funding. Broadband STAT empowers states to:

- Leverage the best-of-class, geographic informatics for broadband decision-making;
- Build and evaluate scenarios to help score and prioritize broadband proposals;
- Provide data-based support for effective grant-making;



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- Facilitate project investment tracking over time;
- Provide access-based tools that are relevant and meaningful for specific audiences, including government agencies, consumers, community leaders, broadband providers, and media.

The following screenshot is an example of what the interactive Broadband STAT site would look like.

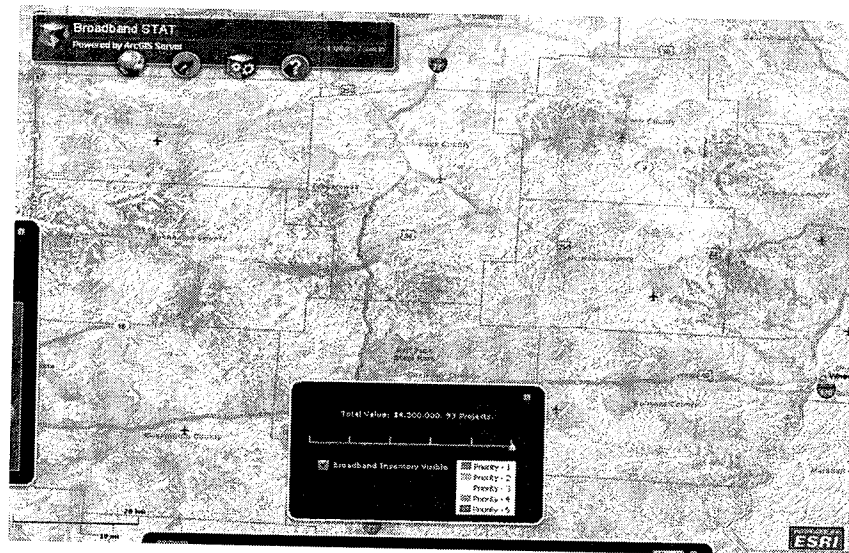


Figure 7. Example of Interactive Broadband STAT Map

2.1.3.1 Puerto Rico Broadband Availability Map Proposal

Industry-standard GIS toolsets and experienced national and local personnel will deliver a comprehensive inventory and mapping of existing broadband service and capability at the census block, street, and with interactive GIS capability at the household level of granularity for Puerto Rico.

The OCIO Team, in conjunction with broadband providers, will update these maps on a routine basis to reflect “real-time” broadband availability. Maps will be presented to the general public in an interactive portal, described in detail above. Data will be searchable at various levels of granularity and geographical areas such as municipality, regional consortiums, cities, political divisions, region, or Census Bureau geographic unit.

In order to provide potential applicants seeking to apply for the U.S. Department of Agriculture’s Rural Utilities Service (RUS) or NTIA grants with the broadband infrastructure information required for their applications, a Census Block level map of the available broadband in the state will be included in the interactive map. The interactive map and associated downloadable database will detail the identification number of each of the 56,500 Census Blocks in Puerto Rico (according to the 2000 Census), the total number of households per Block, and the number of households with available broadband service per Block. Furthermore, the interactive map will illustrate “remote” and “rural” areas as defined under the regulations outlined by RUS in the Broadband Initiatives Program (BIP) for broadband



infrastructure grants. Although such maps are outside of the scope of the *Technical Appendix A* of the NTIA Mapping NOFA, this data will be extremely useful for state officials and private applicants alike, as they determine opportunities to apply for infrastructure grants under the NTIA Broadband Technology Opportunities Program (BTOP) and the RUS BIP program.

Examples of Maps to be Produced for Puerto Rico:

Puerto Rico Broadband Availability by Platform: Geographic representation of provider-based broadband data represented by provider, type such as cable, DSL, wireless, fiber, etc. This map also incorporates data such as political boundaries and major transportation networks in the state (as reference, see *Minnesota's Broadband Map* below).

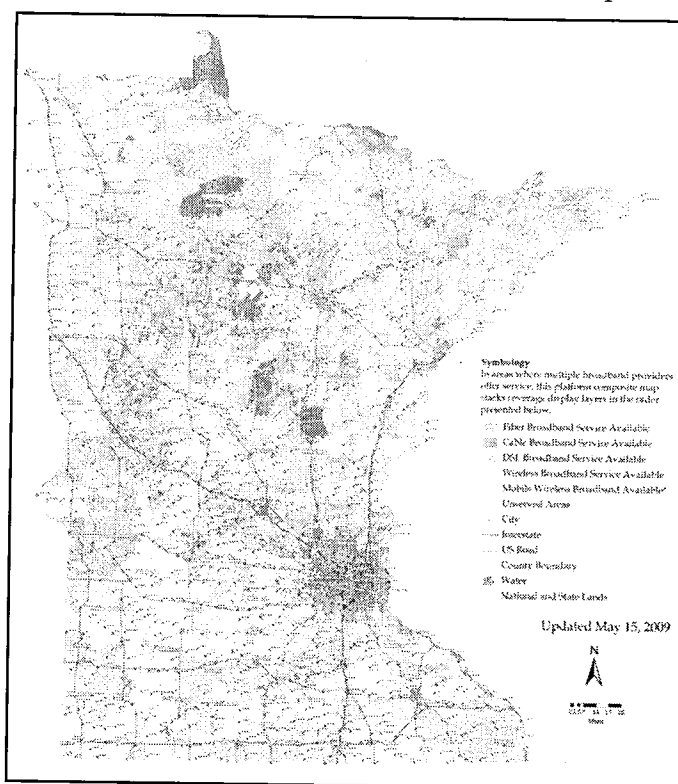


Figure 8. Example of Statewide Broadband Availability by Platform

Puerto Rico Broadband Availability by Provider Density: Similar to the aforementioned *Puerto Rico Broadband Availability by Platform* this additional depiction of broadband data will be represented by two colors: one for areas with only one provider and another for those with multiple providers. There is no distinction as to the type of service available in any given area (as reference, see *Kentucky's Broadband Service Inventory Map* below).



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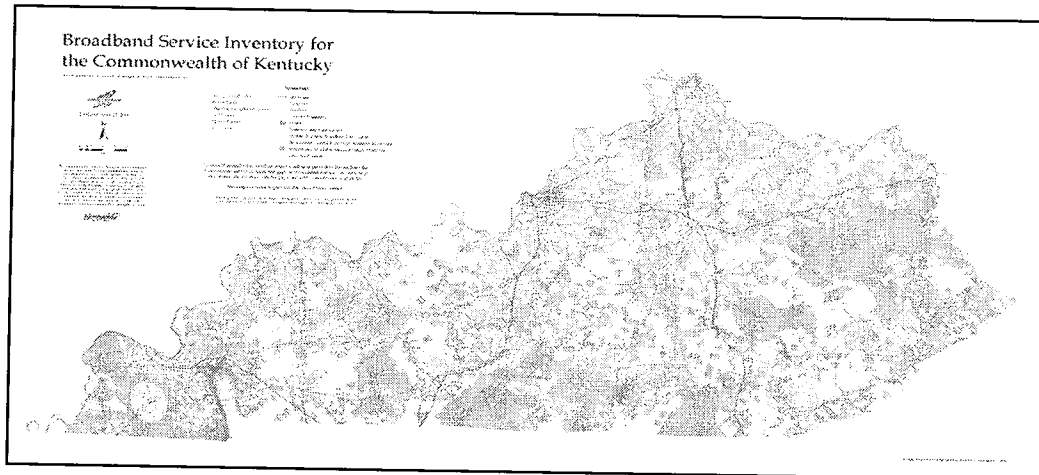


Figure 9. Example of Statewide Broadband Availability by Provider Density

Puerto Rico Unserved Households by Census Block: This representation of data uses the smallest geographic region that the U.S. Census acknowledges – the Census Block – and the broadband data represent the number of households in any given census block that do not have available service. In order to determine the definitions of unserved and underserved as defined in the BTOP broadband infrastructure grant program, it is necessary to determine the number of households without broadband availability and deduct this number from the state's total household count, resulting in the percentage of households with broadband availability. This practice has been successfully deployed in all states where Connected Nation is engaged. The following example from Connect West Virginia's program provides information regarding the number of households in all unserved Census Block units in the state.

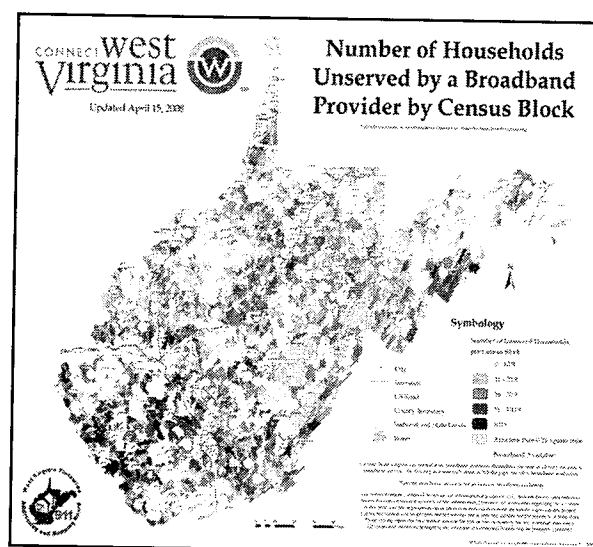


Figure 10. Example of Statewide Maps by Unserved Households and Census Block



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The following example from Connected Tennessee, presents the density of population per square mile, per Census Block that is unserved by broadband infrastructure. The yellow areas represent low density unserved areas (below 4 households per square mile). The dark blue areas represent high density unserved areas (above 86 households per square mile). This information is essential for policymakers and providers to ascertain possible business opportunities remaining and areas where public investment will likely be needed in order to achieve universal coverage.

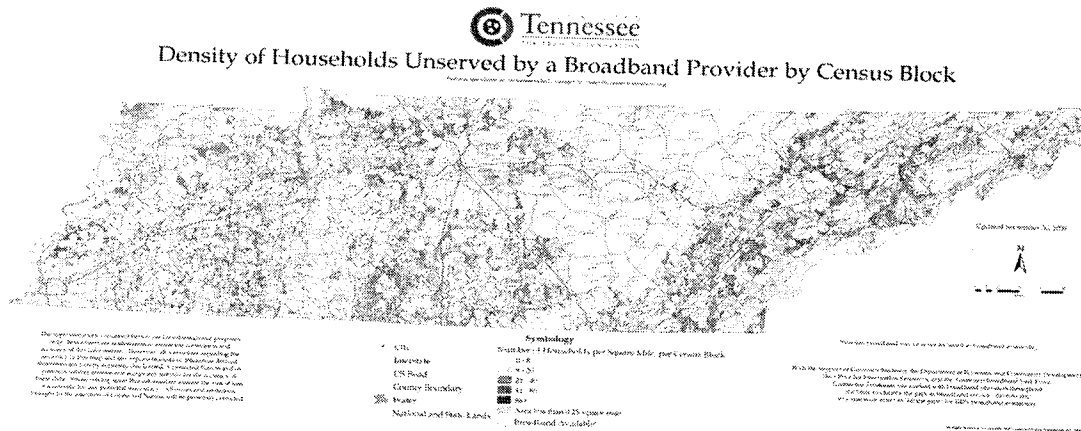


Figure 11. Example of Statewide Maps by Density of Population per square mile, per Census Block that is Unserved by Broadband Infrastructure

Puerto Rico Maps of Tested Broadband Speeds:

The OCIO Team proposes the creation of a GIS map displaying average upstream and downstream speeds, as tested by consumers, using data rate benchmarks for broadband service utilized by the Federal Communications Commission to reflect different speed tiers. This map will be created using current Speedtest.net data, as well as data collected through a newly created speed test portal for Puerto Rico.

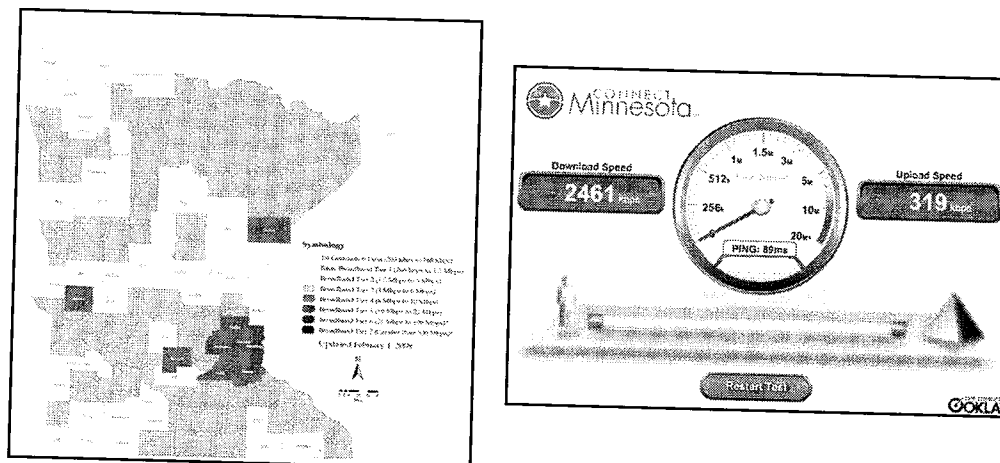


Figure 12. Example of Statewide Maps of Tested Broadband Speeds



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2.1.4 Security and Confidentiality

A key component of Puerto Rico's broadband mapping process is the protection of confidential information, as required in the NTIA State Broadband Data and Development grant program. The OCIO will delegate on Connected Nation the compilation of the necessary confidential information with the providers. As such, Connected Nation will execute Non-Disclosure Agreements with each provider, consistent with the principles and guidelines for data confidentiality rules outlined in Sections III and IV of the NTIA SBDD NOFA.

Connected Nation will establish a legal and technical program that ensures full protection of broadband service providers' confidential and proprietary data that is necessary to complete the maps. To that end, Connected Nation will incorporate the following processes in its mapping programs:

- Full public disclosure from the outset to all state and/or federal officials, providers and the general public of the type and form of data that Connected Nation will be releasing publicly and to government authorities.
- Execution of Non-Disclosure Agreements with broadband providers. These agreements clearly define how each provider's confidential information will be used and protected. The data that is protected via Non-Disclosure Agreements is limited to highly sensitive network infrastructure information, which is processed by Connected Nation to determine the broadband availability footprint and GIS maps. In particular, the specifications of the network infrastructure and equipment, such as the frequencies and beamwidth of wireless signals, latitude/longitude coordinates of digital subscriber line access multiplexers (DSLAMs), or the specifications of fiber routes, remain confidential. The NDAs also protect the confidentiality of provider specific data. (See below for a sample NDA).
- Established protocol for data transfer and processing that ensures maximum protection of the confidential data held by Connected Nation.
- Established IT-based secure system for data storing and hosting.

These data confidentiality requirements offer the possibility for Connected Nation to disclose highly detailed, granular maps and information about the broadband inventory in Puerto Rico, as described above.

The OCIO is convinced that the timely, accurate and granular statewide broadband maps production will be based on a collaborative, volunteer partnership with broadband providers. By establishing a model for data protection and executing Non-Disclosure Agreements with providers to satisfy data confidentiality concerns, the OCIO expects to achieve this goal.

The following is a general nondisclosure and data sharing template which will be used in a substantially similar form with all providers to govern the use and the exchange and protection of Confidential Information received from providers. The exact terms may vary slightly between providers. However, the final form will clearly allow Connected Nation, as representative of the OCIO, to meet all requirements of the SBDD NOFA and other applicable state agreements.



NONDISCLOSURE AGREEMENT

THIS NONDISCLOSURE AGREEMENT (herein the "Agreement") is dated and effective as of _____, 2009 ("Effective Date"), by and between _____, a corporation with an address for notice and located at _____ ("BBP") and Connected Nation, Inc. a not-for-profit corporation with an address for notice and located at 1020 College Street, Bowling Green, KY 42101 ("Connected Nation").

WHEREAS:

- I. The Federal Government through the National Telecommunications and Information Administration ("NTIA") and the Rural Utilities Service ("RUS") have made available multiple grant and loan programs ("Federal Programs") to fund broadband mapping, infrastructure, adoption, public accessibility and to promote the general use of broadband technology and applications with such programs' reporting and other requirements of funding being outlined in a relevant Notice of Funds Availability as it may from time to time revised or amended ("NOFA"); and,
- II. Included among the Federal Programs is the State Broadband Data Development grant program ("SBDD") governed by that certain Notice of Funds Availability inclusive of all appendices, attachments, exhibits and revisions or amendments thereto, first published in volume 74, number 129, at page 32545 hereby incorporated by reference as if fully restated verbatim herein; and,
- III. State Governments ("States") have partnered with Connected Nation to work together toward implementation, expansion and leveraging of these Federal Programs and other such similarly focused programs for the benefit of the States ("State Programs"); and,
- IV. The Parties desire to assist the States and Connected Nation in their implementation of Federal Programs and State Programs for the benefit of the States ("Project");
- V. The Parties are in possession of certain confidential and proprietary information which may be helpful in advancing these mutually beneficial goals, and both acknowledge that they may receive, from or on behalf of the other Party or its Affiliates, certain information, including trade secret information, considered to be confidential, valuable and proprietary by that Party. "Affiliates" means any company owned in whole or in part, now or in the future, by a Party or by one or more direct or indirect subsidiaries controlled by the Party.
- VI. When a Party ("Provider") shares confidential and proprietary information with the other Party ("Recipient"), the confidential and limited use conditions of this Agreement shall apply.

NOW THEREFORE, IN FULL CONSIDERATION of the mutual promises, covenants and obligations contained herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby expressly acknowledged by the Parties, the Parties agree as follows:

TERMS

- a) "Confidential Information" shall be defined in identical terms to the most recent, revised, applicable and in force definition outlined in the SBDD NOFA, as the same may from time to time be revised or amended.
- b) All information, including Confidential Information, received by Connected Nation or its Affiliates from BBP or its Affiliates may be used in furtherance of the Project and Connected Nation is hereby granted a worldwide, perpetual, royalty-free, revocable license for the use of such information, including Confidential Information, limited as follows:
 - i) That Connected Nation may use BBP's Confidential Information to derive maps, interactive websites and tabular data representations of BBP's broadband coverage area, network information, and coverage attributes and other such representations of information including Confidential Information all as may be required by a Project (collectively "Works"); and,
 - ii) That Connected Nation may provide the National Telecommunications Information Administration or other agency of the United States Federal Government funding or administering a Project with any such Works as may be required by the Project terms and conditions as outlined in any applicable NOFA. BBP acknowledges that such provision of Works may likely result in the disclosure of Confidential Information to governmental authorities and that, once such disclosures are made by

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- Connected Nation as required by a Project NOFA, Connected Nation is fully released from any liability for the actions of the third party governmental authority regarding the disclosure, sharing or use of Confidential Information; and,
- iii) That Connected Nation may provide Works to any U.S. State or Territory for whom a State Program involving Connected Nation has been commenced, provided that no Confidential Information is disclosed to any state government or other third party, except as otherwise provided for herein; and,
 - iv) That any Works may differentiate between general broadband service types (such as DSL, cable, fixed wireless, BFL and others), and may, at a pinpoint, address level, identify all broadband providers known to Connected Nation at a given location; and,
 - v) No use of Confidential Information by Connected Nation and consistent with the terms provided for herein shall constitute a disclosure of Confidential Information pursuant to the terms of this Agreement.
- c) Recipient will protect Confidential Information provided to Recipient from any use, distribution or disclosure except as permitted herein. Recipient will use the same standard of care to protect Confidential Information as Recipient uses to protect its own highly confidential and proprietary information, but not less than a reasonable standard of care.
 - d) Recipient may provide Confidential Information only to its employees, corporate Affiliates, consultants, independent contractors and agents who:
 - i) Have a substantive need to know such Confidential Information in connection with the Project;
 - ii) Have been advised of the confidential and proprietary nature of such Confidential Information; and
 - iii) Have personally agreed with Recipient in writing to protect from unauthorized disclosure all confidential and proprietary information, of whatever source, to which they have access in the course of their engagement with Recipient.
 - e) Confidential Information provided to Recipient in written or other tangible or electronic form will be marked with a confidential and proprietary notice, or if provided orally or visually will be designated as confidential and proprietary at the time of such disclosure or within a reasonable period thereafter. In addition, any information provided to, or received by Recipient (including information visually observed by Recipient while on Provider's premises) that is by its nature and content reasonably distinguishable as the confidential and proprietary information of Provider but is not specifically marked or orally designated as confidential and proprietary by Provider, will be treated as Confidential Information subject to the obligations of this Agreement.
 - f) Provider's Confidential Information does not include:
 - i) Any information Provider publicly discloses;
 - ii) Any information Provider in writing authorizes Recipient to disclose without restriction;
 - iii) Any information Recipient already lawfully knows at the time Provider disclosed it to Recipient, without an obligation to keep it confidential;
 - iv) Any information Recipient lawfully obtains from any source other than Provider, provided that such source lawfully disclosed such information; or
 - v) Any information, maps, interactive websites, tables, drawings, exhibits or other Intellectual Property Connected Nation independently creates with or without reference to BEP's Confidential Information.
 - g) Parties acknowledge that any discrepancy between the SBDD NOFA and the terms provided for herein shall be resolved in favor of the SBDD NOFA. Nothing contained herein shall be construed to limit Connected Nation's reporting and data sharing obligations under the SBDD NOFA, including sharing of BEP's Confidential Information with NTIA and other federal agencies, as may be required.
 - h) If Recipient is otherwise required to provide Confidential Information to any court or government agency pursuant to written court order, subpoena, regulation or process of law not otherwise provided for herein, Recipient must first provide Provider with prompt written notice of such requirement and cooperate with Provider to appropriately protect against or limit the scope of such disclosure. To the fullest extent permitted by law, Recipient will continue to protect as confidential and proprietary all information disclosed by Provider in response to a written court order, subpoena, regulation or process of law.
 - i) Recipient may make tangible or electronic copies and notes of Confidential Information only as necessary for use as authorized herein. All tangible or electronic copies or notes must be marked with the same confidential and proprietary notice as appears on the original. All information provided orally or visually by Provider and reduced by Recipient to tangible or electronic notes must be marked by Recipient as Provider's confidential and proprietary information and will be considered Confidential Information for purposes of this Agreement.

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- j) All Confidential Information remains at all times Provider's property. Upon Provider's request, all or any requested portion of the specific Confidential Information will be promptly returned to Provider or destroyed, and Recipient will provide Provider with written certification stating that such information has been returned or destroyed.
- k) Recipient may identify Provider, its Affiliates and any other owner of Confidential Information protected under this Agreement in reasonable advertising, promotional materials, press releases, and other public disclosure as a contributing internet service provider, provided no specific data covered by the terms of this Agreement is revealed. No license under any trademark, patent, copyright, trade secret or other intellectual property right is either granted or implied by disclosure of Confidential Information to Recipient.
- l) The term of this Agreement and Recipient's obligations hereunder commence on the Effective Date and extend with regard to all Information until five (5) years after the date of final disclosure of Information hereunder, but in no case greater than ten (10) years from the Effective Date. Thereafter, Recipient's obligations hereunder only continue in effect with respect to any Confidential Information that is a trade secret under applicable law.
- m) This Agreement is not a commitment by Provider to enter into any transaction or business relationship with Recipient, nor is it an inducement for Recipient to spend funds or resources. No such agreement will be binding unless and until stated in a writing signed by both Parties. All Confidential Information is provided to Recipient 'as is,' and Provider makes no warranties or representations with respect to its content, accuracy or completeness.
- n) Recipient acknowledges and agrees that any breach or threatened breach of this Agreement is likely to cause Provider and its Affiliates irreparable harm for which money damages may not be an appropriate or sufficient remedy. Recipient therefore agrees that Provider or its Affiliates are entitled to receive injunctive or other equitable relief to remedy or prevent any breach or threatened breach of this Agreement without the necessity of a bond. Such remedy is not the exclusive remedy for any breach or threatened breach of this Agreement, but is in addition to all other rights and remedies available at law or in equity.
- o) No forbearance, failure or delay by Provider in exercising any right, power or privilege is a waiver thereof, nor does any single or partial exercise thereof preclude any other or future exercise thereof or the exercise of any other right, power or privilege.
- p) If and to the extent any provision of this Agreement is held invalid or unenforceable, all other provisions of this Agreement shall remain in full force and effect to the fullest extent permitted by law.
- q) This Agreement is binding upon and inures to the benefit of the Parties and their heirs, executors, legal and personal representatives, successors and assigns, as the case may be.
- r) This Agreement is the entire agreement between the Parties hereunder and may not be modified or amended except by a written instrument signed by both Parties. Each Party has read this Agreement, understands it and agrees to be bound by its terms and conditions. There are no understandings or representations with respect to the subject matter hereof, express or implied, that are not stated herein. This Agreement may be executed in counterparts, and signatures exchanged by facsimile or other electronic means are effective for all purposes hereunder to the same extent as original signatures.

IN WITNESS WHEREOF, the Parties have seen and agreed to this Nondisclosure Agreement as evidenced by the signatures of the Parties' authorized representatives below:

BBP:

By: _____
(Authorized Signature)

Name: _____
(Print or Type)

Title: _____

Company: _____

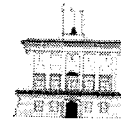
Connected Nation, Inc.:

By: _____
(Authorized Signature)

Name: _____
(Print or Type)

Title: _____

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2.2 PROJECT FEASIBILITY (30%)

2.2.1 Applicant Capabilities

2.2.1.1 Puerto Rico's Mapping Budget Narrative

The collaborative relationship between the OCIO, PRIFA and Connected Nation demonstrates a solid, effective partnership capable of optimally leveraging the immense opportunity presented by this federal grant program. In developing a project budget, the OCIO closely coordinated efforts to develop an informed and reasonable budget guided by prior mapping experience, local knowledge and supported by financing through in-kind support.

To support baseline budgetary assumptions and approach, the OCIO team called upon Connected Nation's expertise, employing this partner's methodology to develop a cost model based on well established historical precedents through similar mapping projects in other states. This sound approach to budget planning relies upon Connected Nation's rich program history adjusted in consideration of the enhanced project scope and compressed timeline for deliverables required by NTIA as well as PRIFA's local experience in managing projects.

Budget assumptions have been driven by three high-level project areas: provider and community outreach enabling data acquisition; technical expertise necessary for data encoding, mapping and updates; and reliable measures for data validation.

While costs associated with reliable data validation efforts are largely independent of state size or the number of broadband providers, expenses for outreach and data collection, as well as costs for data encoding and mapping are directly related to the state population and the number of broadband providers. More providers translate directly to more data collection and more data mapping yielding a higher expense.

The current cost model accounts for a provider relationship management cost of 0.5 hours of FTE time per provider with a reduced update expense of 0.25 hours of FTE time per provider per update for relationship management. In addition, the model contemplates an initial expense of 1 hour of attorney time per provider initially to secure appropriate data sharing relationships with a reduced rate of 0.25 hours of attorney time for each update for ongoing intellectual property and other legal concerns associated with mapping and outreach. Data acquisition for community anchor institutions has also been contemplated as part of this outreach and is based upon state population, since state populations most accurately reflects the number of facilities which must be included in the project. In addition, previous efforts to collect data in Puerto Rico have been used as benchmarks for determining the amount of effort necessary to collect this data.

Like outreach, technical expertise expenses are also driven by the number of providers. Connected Nation's cost model has normalized these expenses by studying historical, empirical costs for this technical expertise in prior broadband mapping projects and dividing those costs by the number of broadband providers involved in those projects – resulting in an historical average cost per provider. This normalized standard was then extended to Puerto Rico based upon the number of providers in that state and adjusted by a factor of 1.5x prior per provider costs to accommodate the increased scope of the SBDD program's expectations. This 1.5x factor of adjustment was based upon a technical review and detailed analysis of the enhanced effort level required for data encoding, mapping, and reporting versus previous



mapping experiences as well as a technical review with senior analysts. In addition, project coordination and management staffing resources have been budgeted to support on site operations housed with the OCIO and PRIFA. The data processing and mapping budget also reflects the budgetary impact of contractual resources required to be engaged on a short term basis to meet the compressed timeframe for the initial delivery of datasets.

Finally, reliable data validation cost is consistent with historical precedents. Statistically relevant telephone surveys, internet inquiries and verification, and other standardized validation measures employed are largely consistent and independent of a state's population or number of providers. As such, this general budget area has been contemplated as a similar cost scaled appropriately to achieve and exceed those validation measures required in the grant guidelines.

For the Non-Federal Match requirement, the OCIO proposes to provide in-kind matches that will be further described below. Although not included in the proposed in-kind match, some of the Connected Nation's staff, as well as some of their subcontractors, have agreed to contribute a documented portion of their time as in-kind contribution if needed to cover additional matching requirements.

In consideration of this scaled, empirically based cost model, this grant proposal will seek a bottom line budget of \$1,926,607 in federal grant funds for the 5-year mapping project from NTIA for the benefit of the Government of Puerto Rico. A non-federal, documented in-kind match will be provided from the OCIO of \$582,678 making the total SBDD mapping project budget \$2,509,285.

Mapping	Federal	Non-Federal	Total
a. Personnel	\$353,583	\$151,160	\$504,743
b. Fringe Benefits	\$88,395	\$45,348	\$133,743
c. Travel	\$109,280	\$-	\$109,280
d. Equipment	\$101,432	\$45,000	\$146,432
e. Supplies	\$48,803	\$-	\$48,803
f. Contractual	\$733,838	\$-	\$733,838
g. Construction (facilities)	\$-	\$-	\$-
h. Other (Outreach; Data; Facilities)	\$32,081	\$295,822	\$327,903
i. Total Direct Charges	\$1,467,412	\$537,330	\$2,004,742
j. Indirect Charges	\$459,195	\$45,348	\$504,543
TOTALS	\$1,926,607	\$582,678	\$2,509,285
Percent of Total	76.78%	23.22%	



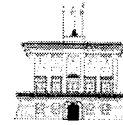
Personnel: For the **Federal Grant Funds** portion, personnel costs primarily include a portion of Connected Nation employees' time necessary to fill the following roles related both to outreach and data encoding/mapping: Collaboration (outreach): Director of Strategic Partnerships and staff, Public Relations Director and staff; Mapping: GIS Analysts, GIS Manager; Data Gathering, Updating & Data Validation: Wireless Business Analysts, Research Analysts; Project Management: Coordination & Reporting, Project Management, Project Coordinator, Web-Hosting Management. However, additional Connected Nation employees may need to be included, as the project budget may allow, to enable a full suite of support services for the project.

Personnel costs would account for nearly 2,200 personnel hours annually to provide the necessary long-term staff for the data collection efforts in order to identify, establish and maintain working relationships with all of Puerto Rico's broadband providers; to collect and update the data in accordance with NTIA's mapping NOFA; to produce a statewide broadband availability map; to establish data verification protocols to ensure accuracy of data and continued testing and checking of mapping data; to manage data update gathering and reporting; to develop and undertake a targeted media campaign to build awareness of consumer's ability to test their broadband speed; to process provider specific information to fulfill the NTIA reporting requirements; to provide periodic reports to the Government of Puerto Rico; and for overall project management and coordination. While actual salaries vary according to the skill sets and market environment for the given positions, the anticipated average base salary of the primary positions involved is approximately \$70,000 per year. This baseline of compensation will ensure the assembly of a qualified team to meet the challenges and take full advantage of all the opportunities presented by this program for the benefit of the Government of Puerto Rico.

For the **Non-Federal In-Kind Match**, the OCIO will provide government personnel time to perform some of the required services in the project. A Program Director will be assigned from the OCIO to oversee the development of the project. It is estimated that in the first year, 25% of the Program Director's time will be devoted to the mapping project, with an average of 11% in the following four years. Administrative Support Staff (assigned 10% of their time) will assist the Program Director.

The OCIO GIS Manager will work to ensure that the data collected as part of the project is eventually compatible with the Government's GIS Centralization Project by collaborating at least 15% of his time with the project from the beginning. A GIS technician (approximately 10% of his time) will also collaborate on this assignment. They will work in close coordination with Connected Nation and PRIFA to assure that all datasets generated and used can be integrated to the Government's GIS Centralization Project.

For Outreach efforts, the OCIO has procured the participation of the Government of Puerto Rico (GPR) Public Relations Manager and Support Staff that will provide approximately 800 hours of support throughout the five-year program to work directly with local media outlets (TV, national and regional newspapers and radio) to assure that the outreach initiatives reach a higher number of inhabitants. As part of the team, administrative support for translation validation has been estimated at approximately 715 hours through the five-year program.



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Finally, the OCIO has within the office staff a transfer from the Department of Transportation and Public Works with significant experience in broadband and interoperability initiatives at the government level that will contribute approximately 10% of his time to the Mapping initiative.

Fringe Benefits: Fringe benefits are estimated to be a standard rate of 25% of total personnel costs for Connected Nation staff and 30% for Puerto Rico's in-kind match.

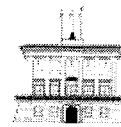
Travel: For the **Federal Grant Funds** portion, travel costs are comprised of mileage, meals, airfare, and hotel accommodations, as well as rental car and associated fuel costs necessary to meet the grant requirements. Other miscellaneous travel costs may be included in this category, as needed. Mileage costs will be paid at the applicable standard federal rate which is currently \$.55 per mile; meal costs are estimated at \$45 per day based on the current standard federal per diem rate; airfare costs are based on an average of \$1,200 per round-trip flight; hotel costs are based on an average of \$200 per night; and rental car and associated fuel costs are based on an average of \$90 per day. All travel costs include a 4% annual inflation adjustment. The total travel costs for the project are budgeted to be \$109,280, all paid from federal sources.

Equipment: For the **Federal Grant Funds** portion, equipment for the mapping project includes a portion of the total cost of Broadband STAT with an initial cost of \$60,000 and an annual maintenance cost of \$ 15,000. The total equipment cost for mapping is \$101,432, all paid from federal sources. This cost represents approximately 82% of the Broadband STAT cost. The remaining cost for Broadband STAT is included in the planning budget. All equipment costs include a 4% annual inflation adjustment.

For the **Non-Federal In-Kind Match**, the OCIO is allocating a portion of the hardware and software costs related to the Government's GIS Centralization Project. Items included are GIS software licenses, other software licenses and development tools, database management tools, visualization software and hardware, computers and servers, among others. It is estimated that more than \$500,000 has been invested by the OCIO for this initiative. The OCIO is proposing an allocation of \$55,000 as in-kind contribution; \$45,000 for mapping and \$10,000 for planning.

Supplies: For the **Federal Grant Funds** portion, supply costs include, but are not limited to, office supplies and office expense costs as well as costs for postage, printing, telephone and other similar items directly related to the implementation of this program. The supplies budget includes an initial amount of \$5,000 for each FTE for small equipment which is employee specific (such as a laptop computer, desk, chair, furniture, etc.) as well as \$250 per month per FTE for office supplies, small equipment replacement cost or other necessary costs as detailed above or project specific miscellaneous cost. The total supply costs are projected to be \$48,803, all paid from federal sources. Annual supply costs include a 4% annual inflation adjustment.

Contractual: For the **Federal Grant Funds** portion, contractual costs have been included for the support that PRIFA will provide the OCIO as well as for subcontractors that will be part of the Connected Nation team. For PRIFA, the OCIO has signed a Contract of Assistance to provide support services related to the mapping project through its group of consultants.



PRIFA has already provided support services in the procurement process for which Connected Nation was selected as the mapping contractor and will provide legal support for the signing of the professional services contract. Also, PRIFA provided support services in an expedited manner to gather additional community anchor institution information as well as other relevant data in GIS needed to successfully develop the mapping initiative in the ambitious schedule required by the NOFA. Quality control and validation was also provided to the collected data.

For the execution of the project, PRIFA will provide to the OCIO the following staff support: (1) a local Project Manager that will dedicate approximately 12% of his time to the execution of this project in its five-year span (40% the first six months, and 10% thereafter); (2) a local GIS specialist to provide an independent data quality review to the information collected by Connected Nation; (3) a Compliance Coordinator to assist in the preparation, review and submittal of the required Recovery Act reports and (4) local legal support. PRIFA support services total \$395,955 for the five year project.

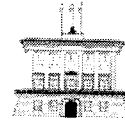
For Connected Nation, it is anticipated with this grant that their data gathering or other staff will be supported by consultants with a particular focus on locally-based resources, when possible, to minimize expenses and leverage local awareness. Based on historical project data from Connected Nation and a snapshot of market expense for qualified contractual resources, the estimated consultant cost related to data gathering and validation needed to produce the maps to be delivered in November, February and March is projected at \$27,497 with semi-annual update costs totaling \$2,000. This translates to a total cost over the life of the project of \$45,497.

Contractual costs also include the legal expertise essential to execute the Non-Disclosure Agreements with the providers. As outlined above, the estimated legal cost is based upon a per provider expense in securing the legal data sharing agreements needed to produce the maps to be delivered in November, February and March are \$37,400 with semi-annual update relating to ongoing legal concerns totaling \$4,675. The total cost over the life of the project is therefore \$79,475.

Research surveys and research consultant costs are included in this category to provide consistent and relevant data validation. Again, based on historical project data from Connected Nation and a snapshot of market expense for qualified contractual resources, annual research survey costs are estimated at \$50,180. This would include one residential survey followed, 6 months later, by one commercial survey for each year of the project. Survey costs amount for a total of \$206,511. In addition, a research consultant will provide services over the life of the project totaling \$6,400. All contractual costs include a 4% cost of living adjustment annually.

The total anticipated contractual costs for the complete project are \$733,838 all of which is projected to be paid by federal sources.

Others (Outreach, Data, Facilities): For the **Federal Grant Funds** portion, as an additional component of the community and provider outreach efforts, the OCIO team contemplates an education and outreach program. This program will generate awareness of the mapping endeavor, development of high-level appreciation for broadband, its utility and application, specifically to drive public interest towards the interactive map, broadband speed test and



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consumer-level data validation measures. This general public awareness effort has sustainable benefits in encouraging the embrace of technology and thereby improving digital literacy and interest and unique application of the broadband maps. These total outreach costs are projected to be \$32,081 from federal sources. All outreach costs include a 4% annual inflation adjustment.

For the **Non-Federal In-Kind Match**, the OCIO proposes to allocate a portion of the costs associated to the creation of several GIS datasets that are part of the Government's GIS Centralization Project, which will be essential to the mapping project. The cost for these data sets has been estimated based on the professional experience of the OCIO and PRIFA regarding the amount of effort invested in the generation, compilation and/or digitalization of the data as well as on discussions with the applicable agencies. A reasonable percentage of this cost is proposed to be allocated as an in-kind match.

Specifically, the Government's GIS Centralization Project has the following datasets that will be used in the mapping project: water/ wastewater facilities from the Puerto Rico Aqueduct and Sewer Authority (PRASA) (\$4,000,000 cost; with a proposed in-kind match of 2%, or \$80,000); transmission and distribution electric power lines from the Puerto Rico Electric and Power Authority (PREPA) (\$4,000,000 cost; with a proposed in-kind match of 2%, or \$80,000); state and municipal roads as well as related transportation facilities from the Puerto Rico Department of Transportation and Public Works (PRDTPW) with selected geocoded distances (\$1,500,000 cost; with a proposed in-kind match of 2%, or \$30,000); Community Anchor Institutions and other relevant infrastructure (\$1,000,000 cost; with a proposed in-kind match of 2%, or \$20,000); and Aerial Photos from the local municipal state property tax collection agency, CRIM (by its Spanish Acronym) at a 1:1000 scale and IKONOS Satellite images from the Island (\$3,000,000 cost; with a proposed in-kind match of 2%, or \$60,000).

Overall, the OCIO proposes to contribute this data for a total of \$270,000 as in-kind match to enhance the value and functionality of the broadband maps that will be created. This total value will be allocated 90% to mapping and 10% to planning.

Also, the OCIO is allocating office space and related facilities that will be assigned to the mapping project. Specifically, the OCIO proposes to allocate small equipment (such as desks, chairs, and furniture) for up to five employees within its facilities to this project. Total cost for this office space and related facilities, based on actual expenditures by the OCIO, are approximately \$2,500 per year per employee, for a total cost of \$62,500 for the five years (to be divided 60% for mapping and 40% for planning). In addition, associated utility costs as well as parking facilities for up to five employees account for \$25,536 (to be divided 60% for mapping and 40% for planning).

Indirect Cost: Indirect costs are those that will be incurred for common or joint objectives and cannot readily be identified with a particular direct cost objective. In compliance with OMB Circular A-122, OCIO's non-federal in-kind match as well as Connected Nation's indirect costs include items, not directly associated with the project, such as telecommunications; printing; rent; utilities; depreciation; insurance; postage; hardware and software costs; general administration and other general expenses; personnel costs for administrative, accounting and human resource employees; operation and maintenance



expenses; as well as grant compliance, grant financial reporting and auditing costs (when applicable). Connected Nation's indirect costs are included in the budget at a rate of 30% of their total cost. Non-federal indirect costs are included in the budget at a rate of 30% of personnel cost. This rate is proposed as a conservative estimate to properly account for the common benefits realized by the project.

2.2.1.2 Puerto Rico's Planning Budget Narrative

Planning	Federal	Non-Federal	Total
a. Personnel	\$162,270	\$52,080	\$214,350
b. Fringe Benefits	\$40,566	\$15,624	\$56,190
c. Travel	\$57,093	\$-	\$57,093
d. Equipment	\$22,265	\$10,000	\$32,265
e. Supplies	\$7,410	\$-	\$7,410
f. Contractual	\$59,280	\$-	\$59,280
g. Construction (facilities)	\$-	\$-	\$-
h. Other (Facilities)	\$-	\$67,614	\$67,614
i. Total Direct Charges	\$348,884	\$145,318	\$494,202
j. Indirect Charges	\$149,521	\$15,624	\$165,145
TOTALS	\$498,405	\$160,942	\$659,347
Percent of Total	75.59%	24.41%	

The Government of Puerto Rico will seek \$498,405 from federal sources for the planning project from NTIA. An in-kind match of \$160,942 will be provided by the OCIO making \$659,347 the total SBDD planning project budget.

Personnel: For the **Federal Grant Funds** portion, personnel costs primarily include a portion of Connected Nation employees' time necessary to fill the following roles related both to planning and research: **Broadband Planning Staff:** Project Manager and Project Coordinator; **Research Staff:** Research Analyst. However, additional Connected Nation employees may need to be included, as the project budget may allow, enabling a full suite of support services for the project. All personnel costs include a 4% cost of living adjustment annually.

For **Non-Federal In-Kind Match**, the OCIO will provide government personnel time to perform some of the required services in the project. The OCIO is allocating to the planning effort approximately 15% of the Program Director's time, 10% of the Administrative Assistant's time and 10% of the Department of Transportation and Public Works staff's time.

Fringe Benefits: Fringe benefits are estimated to be a standard rate of 25% of total personnel costs for Connected Nation staff and 30% for Puerto Rico's in-kind match.

Travel: For the **Federal Grant Funds** portion, travel costs are comprised of mileage, meals, airfare, and hotel accommodations, as well as rental car and associated fuel costs necessary to meet the grant requirements. Other miscellaneous travel costs may be included in this

Puerto Rico State Broadband and



category, as needed. The assumptions are the same as those described in the mapping portion of the budget narrative. The total travel costs for the project are budgeted to be \$57,093, all paid from federal sources.

Equipment: For the **Federal Grant Funds** portion, equipment for the planning project includes a portion of the total cost of Broadband STAT with an initial cost of \$60,000 and an annual maintenance cost of \$15,000. The total equipment cost for planning, \$22,265, all paid from federal sources, represents approximately 18% of the Broadband STAT cost. The remaining cost for Broadband STAT is included in the planning budget. All equipment costs include a 4% annual inflation adjustment.

For **Non-Federal In-Kind Match**, the OCIO is allocating a portion of the hardware and software costs related to the establishment of the Government's GIS centralization project. As described in the mapping portion of the budget narrative, an allocation of \$10,000 has been allocated for the planning effort.

Supplies: For the **Federal Grant Funds** portion, supply costs include, but are not limited to, office supplies and office expense costs as well as costs for postage, printing, telephone and other similar items directly related to the implementation of this program. The assumptions are the same as those described in the mapping portion of the budget narrative. The total supply costs are projected to be \$7,410, all paid from federal sources. Annual supply costs include a 4% annual inflation adjustment.

Contractual: For the **Federal Grant Funds** portion, research surveys and research consultant costs are included in this category to provide consistent and relevant data validation. Again, based on historical project data from Connected Nation and a snapshot of market expense for qualified contractual resources, annual research survey costs are estimated at \$50,180. This would include one residential survey followed, 6 months later, by one commercial survey for each year of the project. Survey costs amount for a total of \$53,280. In addition a research consultant will provide services over the life of the project totaling \$6,000. The total contractual costs are \$59,280, all paid from federal sources. All contractual costs include a 4% cost of living adjustment annually.

Others (Data, Facilities): For the **Non-Federal In-Kind Match** portion, 10% of the allocated Government's GIS Centralization project data set will be distributed to the planning portion of the Project.

Also, as stated in the mapping portion of the budget narrative, the total cost for this office space and related facilities, based on actual expenditures by the OCIO, is approximately \$2,500 per year per employee, for a total cost of \$62,500 for the five years (to be divided 60% for mapping and 40% for planning). In addition, associated utility costs as well as parking facilities for up to five employees account for \$25,536 (to be divided 60% for mapping and 40% for planning). Finally, rental costs for government conference room facilities are estimated to be approximately \$5,400 for the duration of the project.

Indirect Cost: As described in the mapping portion of the budget narrative for the **Federal Grant Funds** as well as the **Non-Federal In-Kind Match** portion, Connected Nation's



indirect costs are included in the budget at a rate of 30% of their total cost. Non-federal indirect costs are included in the budget at a rate of 30% of personnel cost.

2.2.2 Applicant Capacity, Knowledge and Experience

The OCIO has established a highly qualified and diverse team to assure the success of the mapping project. As stated earlier in this document, the OCIO Team is composed by members of the Office of the CIO (OCIO), Connected Nation and the Puerto Rico Infrastructure Financing Authority (PRIFA). Following is a description of the capacity, knowledge and experience of the key team members.

Office of the Chief Information Officer. The OCIO has been recently created through Executive Order (Number OE-2009-009) and has been chartered as the centralized entity responsible for the implementation and supervision of all infrastructure and public policy initiatives related to information technology (IT) and interoperable communications (IC) amongst all levels of government. In addition, the Governor of Puerto Rico, Hon. Luis G. Fortuño, has designated the OCIO as the single state eligible entity to receive the SBDF funds.

Within the OCIO, Mr. Juan Eugenio Rodríguez de Hostos, CIO, will be responsible for the execution of this initiative; with Mrs. María I. Pou as the alternate authorized representative. Within the IT Strategic Plan for Puerto Rico, the OCIO has established four main goals presented below, within which Broadband is a key component.

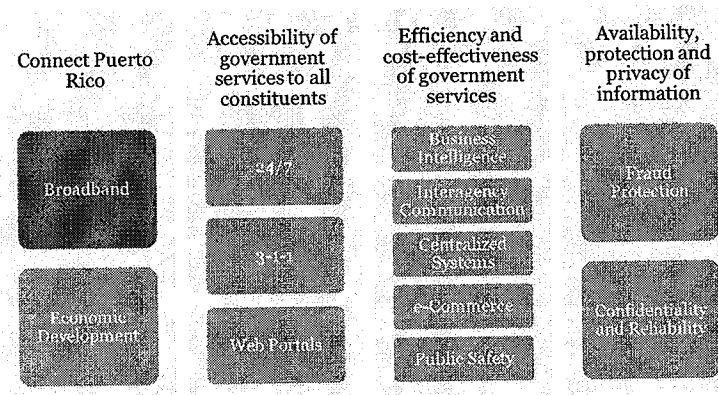


Figure 13. Established Goals for the Office of the CIO

Connected Nation, Inc.: Connected Nation is a national 501(c)(3) non-profit corporation based in Washington, D.C. As a national 501(c)(3) nonprofit corporation, Connected Nation is focused solely on closing the digital divide.

Mission Statement: Connected Nation believes that states, communities, families and individuals can realize great economic and social advantages when we accelerate broadband availability and increase broadband use in all areas, rural and urban alike. Connected Nation facilitates public-private partnerships to increase access to and use of broadband and related technology, creating dramatic results that translate into economic and community development, better education, higher quality healthcare, more efficient public service, and improved quality of life. Connected Nation aspires to be recognized as an international



market leader among organizations that work in the trenches to bridge the digital divide and increase opportunities that are enabled when people have the ability and desire to connect.

History: Through its pilot initiative, Connect Kentucky, Connected Nation developed a nationally-recognized model for spurring broadband deployment and increasing broadband adoption. Since then, Connected Nation has launched sister initiatives in Illinois, Ohio, Tennessee, and Texas. Connected Nation's successful model consists of five primary components:

- Broadband infrastructure mapping and planning,
- Comprehensive research on broadband use and barriers to broadband adoption,
- Launching a statewide grassroots technology planning and awareness campaign that consists of local "e-Community Leadership Teams" in each county,
- Facilitating a collaborative relationship between the state and the broadband provider community, including estimating the true cost of service build-out into unserved areas,
- Increasing the use and ownership of computers and related devices that incite demand for broadband.

Connected Nation is the nation's leading expert in broadband inventory mapping. Under Connected Nation's pilot program, Connect Kentucky, the first state-wide broadband inventory map in America was developed in 2005. Since then, Connected Nation has produced even more accurate and expedient mapping programs in the states of Tennessee (2008), Ohio (2008), South Carolina (2008), West Virginia (2008), Minnesota (2009) and North Carolina (2009). This history places Connected Nation as the most experienced broadband mapping agent in the nation. To accomplish these maps, Connected Nation has engaged in volunteer, collaborative partnerships with over 340 providers, including the largest providers in the nation. Connected Nation's longstanding relationship as a trusted mapping partner with broadband providers, places them in a unique position to deliver accurate and timely maps for Puerto Rico.

Connected Nation has received the following grant awards.

- **Bill and Melinda Gates Foundation** (2008-2010): Connected Nation was selected from an invitation-only solicitation for a project aimed at increasing broadband access and utilization in America's public library systems.
- **USDA Rural Utilities Service Community Connect Grants** (2006 - 2008): Connected Nation successfully led the efforts on several RUS Community Connect Grants. The RUS Community Connect Grant is one of the most competitive and difficult-to-win grants. To date, Connected Nation has secured awards on three Community Connect grants.
- **ARC Grant for Connected Nation's No Child Left Offline Program and ConnectKentucky Operations** (2001 – present): ARC has provided funding in many different forms to support our research, mapping, and broadband deployment



efforts. Most recently, they have provided funding in their region of Kentucky for our No Child Left Offline/Computers for Kids programs.

- **DRA Grant for Community Development** (2005 - 2008): Connected Nation received this grant to fund community planning, awareness and development efforts (eCommunity) in DRA counties.
- **AT&T Foundation** (2007 – present): Grant funding received from the AT&T foundation has supported our No Child Left Offline/Computers for Kids programs in multiple states.
- **AEP** (2007 – present): Grant funding received from American Electric Power Company has supported our No Child Left Offline/Computers for Kids programs in their regions of Kentucky.

All Connect State programs are underwritten through public/private grants for broadband deployment efforts. All of the state programs, with the exception of our involvement in California, have included a statewide, broadband inventory map. In each state initiative, Connected Nation has written and been awarded a combination of federal, state and/or private grants ranging from region to program specific grants. Examples of some of the federal grants utilized are Appalachian Regional Commission (ARC) and Delta Regional Authority (DRA) grants. State grants have traditionally been in the form of economic development or technology grants. Private contributions have been in many different forms such as partnership contributions or foundation grants for program specific needs. Connect State Programs include: Connected Texas (2009 – Present), Connect Kansas (2009 – Present), Connect Colorado (2009 – Present), Connect Illinois (2009 – Present), Connect North Carolina (2009 – Present), Connect Minnesota (2008—present), Connect South Carolina (2008), Connect West Virginia (2007—present), Connect Ohio (2007—present), Connected Tennessee (2007—present,) and, Connect Kentucky (2001—present).

Puerto Rico Infrastructure Financing Authority. The Puerto Rico Infrastructure Financing Authority (PRIFA) is a state agency that was created in the late 1980s, to assist other agencies in the execution and delivery of projects with the capacity to contract all the services required for those purposes, through quicker and more agile processes. PRIFA has extensive experience in managing projects in Puerto Rico, including the Program Management of a \$1.2 billion Water and Wastewater Capital Investment Program and assistance to multiple local agencies in the development of projects, among others.

By virtue of Law Number 8 of 2009, PRIFA was chartered to serve as the Program Manager for all American Recovery and Reinvestment Act (ARRA) funds in Puerto Rico. Through this role, PRIFA provides experts and consultants to local agencies to assist them in the execution of ARRA related projects. Since the OCIO was created in 2009, it has requested that PRIFA provide management and consulting services in relation to the SBDP grant opportunity. Due to the current fiscal situation of the Government of Puerto Rico, Law 8 authorized PRIFA to develop Assistance Contracts with local agencies and charge fees for the support provided.

Specifically, Law Number 8, states the following: PRIFA has the authority “to receive, administer and disburse funds assigned to Puerto Rico from the American Recovery and



Reinvestment Act of 2009, in which matter is not incompatible with Federal Law for Economic Stimulus or norms or interagency agreements with Federal Government; to coordinate and assist all agencies, public corporations, municipalities and other instrumentalities of the Government of Puerto Rico in the identification, programming, development and supervision of funds and the projects in which are utilized; gathering of information and production of reports, related releases and the completion of any other tasks necessary or convenient in order to maximize received funds and compliance with terms and conditions imposed by the Economic Stimulus Law and to achieve transparency in such effort; authorize assistance contracts to meet ends of Law and to expedite the receipt of federal assistance; declare special periods for Benefited Entities which produce Assistance Contracts and to set the conditions and requirements which the Authority can impose by virtue of said special periods; authorize invoice for service charges and repayment of such; authorize the Governmental Development Bank of Puerto Rico to issue a loan to the Authority to cover for the expenses of the implementation of this Law and the Economic Stimulus Law; and to designate separate accounts and investment of funds received; and for other related purposes.”

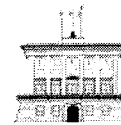
PRIFA has already provided services to the OCIO in relation to the procurement of the mapping consultant, application preparation and coordination, GIS compilation of Community Anchor Institutions as well as overall project management services. PRIFA has already signed a Contract of Assistance with the OCIO. It is proposed that PRIFA assist the OCIO in a variety of tasks for this grant opportunity, including program management, compliance, reporting support, procurement support, translation support and validation, limited legal counsel, technical guidance, independent validation of collected GIS data, overall coordination and general consulting support.

2.3 EXPEDIENT DATA DELIVERY (20%)

The OCIO Team is prepared and well-positioned to ensure that the required deadlines of data submission, as set forth in the *Technical Appendix A* of the NTIA Mapping NOFA are met. These deadlines include November 1, 2009, a substantially complete dataset or partial dataset; February 1, 2010, a substantially completed dataset; and March 1, 2010, a fully completed dataset. While these deadlines are ambitious, the OCIO Team has a successful, proven track record in compiling such required datasets in the desired timeframe, and producing the corresponding statewide mapping suite of products that is described above.

Specifically, for the state of Minnesota, Connected Nation was able to initiate provider outreach, execute the necessary NDAs to facilitate data transfer with over ninety-six (96) providers in the state, process, assimilate and produce the necessary datasets, all pursuant to the timely delivery of the state’s initial mapping products within a three (3) month window of time. This feat accounted for nearly ninety percent (90%) of the final provider sample in the final versions of the maps produced over the entire eight-month project.

Connected Nation’s experience and longstanding relationship as a trusted mapping partner with over 340 broadband providers, as well as the inclusion of local experienced staff in telecommunications and local coordination, places the OCIO team in a unique position to deliver accurate and timely datasets and maps for Puerto Rico. Additionally, Connected Nation has a strong relationship with the major telecommunications and cable associations in



the country, who have been instrumental in reaching smaller, single-state telecommunications and cable providers for whom an established relationship has not been developed.

The following national trade associations are members of Connected Nation's Board of Directors: USTelecom, National Cable and Telecommunications Association, CTIA (the Wireless Association). Connected Nation is a member of WCAI and has informal collaborative relationships with OPASTCO and the National Telecommunications Cooperative Association, which represent hundreds of small corporate and cooperative providers across the country.

Delivering this requirement will entail the following programmatic steps:

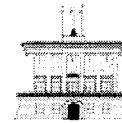
1. Identify and establish relationships with all providers in the state;
2. Gather and process data from each individual provider;
3. Produce Puerto Rico broadband availability map;
4. Establish data verifiability protocols to ensure accuracy of data and continual testing and checking of mapping data;
5. Process provider specific information to fulfill the reporting requirements; Provide semi-annual updates to meet the requirements of the SBDD NOFA.

The OCIO Team Project Management Methodology employs recognized project management best practices as prescribed by the Project Management Institute's *Project Management Body of Knowledge* (PMBOK®) to provide efficient and effective project administration. In addition, PRIFA incorporates best practices as recommended by the Construction Industry Institute (CII) in their executed projects.

While this Project Work Plan is heavily dependent on the cooperative dialogue with several independent stakeholders, and therefore assumes a level of inherent risk, great efforts will be employed to mitigate any slippage along this aggressive schedule. A preliminary work plan is included below.

Puerto Rico Preliminary Work Plan (on a per week basis)

September 13, 2009
<ul style="list-style-type: none">• NTIA Notice of Award• Negotiated Memorandum of Understanding
September 20, 2009
<ul style="list-style-type: none">• Sub-grantee Contract Begins
September 27, 2009
<ul style="list-style-type: none">• Submit a complete work plan for the mapping and planning project• Build a comprehensive list of Puerto Rico's broadband providers• Submit list of Puerto Rico's broadband providers• Begin administration of Non-Disclosure Agreements (NDAs) to each provider• Identify calendar for presentations and/or legislative meetings• Submit Communications Plan• Process and convert provider supplied data (infrastructure and service area)



- Assist smaller providers in the data collection/transfer/verification process where applicable
- Obtain approval of Status Report Format and Frequency
- Submit website prototype for review
- Launch a mapping website
- Generate press release announcing website launch
- Continue administration of Non-Disclosure Agreements (NDAs) to providers
- Process and convert provider supplied data (infrastructure and service area)
- Identify existing state resources for Community Anchor Institution datasets and establish contact
- Assist smaller providers in the data collection/transfer/verification process
- **Submit Monthly Program Status Report**

October 4, October 11 and October 18, 2009

- Continue administration of Non-Disclosure Agreements (NDAs) to providers
- Process and convert provider supplied data (infrastructure and service area)
- Determine added resources needed to complement identified Community Anchor Institution datasets and implement program (surveys, local authority outreach, etc.)
- Assist smaller providers in the data collection/transfer/verification process

October 25, 2009

- Continue administration of Non-Disclosure Agreements (NDAs) to providers
- Process and convert provider supplied data (infrastructure and service area)
- Process and convert Community Anchor Institutions data
- Assist smaller providers in the data collection/transfer/verification process
- **Submit Monthly Program Status Report**

November 1, 2009

- **Deliver to NTIA substantially complete set of availability data**
- Continue administration of Non-Disclosure Agreements (NDAs) to providers
- Process and convert provider supplied data (infrastructure and service area)
- Assist smaller providers in the data collection/transfer/verification process

November 8, November 15 and November 22, 2009

- Continue administration of Non-Disclosure Agreements (NDAs) to providers
- Process and convert provider supplied data (infrastructure and service area)
- Process and convert Community Anchor Institutions data
- Assist smaller providers in the data collection/transfer/verification process

November 29, 2009

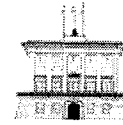
- Continue administration of Non-Disclosure Agreements (NDAs) to providers
- Process and convert provider supplied data (infrastructure and service area)
- Process and convert Community Anchor Institutions data
- Assist smaller providers in the data collection/transfer/verification process
- **Submit Monthly Program Status Report**

December 6, December 13 and December 20, 2009

- Continue administration of Non-Disclosure Agreements (NDAs) to providers



<ul style="list-style-type: none">• Process and convert provider supplied data (infrastructure and service area)• Process and convert Community Anchor Institutions data• Assist smaller providers in the data collection/transfer/verification process December 27, 2009
<ul style="list-style-type: none">• Continue administration of Non-Disclosure Agreements (NDAs) to providers• Process and convert provider supplied data (infrastructure and service area)• Assist smaller providers in the data collection/transfer/verification process where applicable. <ul style="list-style-type: none">• Submit Monthly Program Status Report January 3, January 10 and January 17, 2010
<ul style="list-style-type: none">• Continue administration of Non-Disclosure Agreements (NDAs) to providers• Process and convert provider supplied data (infrastructure and service area)• Assist smaller providers in the data collection/transfer/verification process January 24, 2010
<ul style="list-style-type: none">• Complete NDA administration for all participating providers (initial map)• Complete data transfer and conversion process (initial map)• Supply coverage maps to each participating provider for verification and error-checking (initial map)• Complete the data verification process with each broadband provider (initial map)• Provide initial mapping products• Continue administration of Non-Disclosure Agreements (NDAs) to providers• Process and convert provider supplied data (infrastructure and service area)• Process and convert Community Anchor Institutions data• Assist smaller providers in the data collection/transfer/verification process January 31, 2010
<ul style="list-style-type: none">• Make each map (initial) available online from the website for download in PDF and JPEG formats• Launch online interactive version of the maps (initial)• Make available a public input/inquiry form online for users to dispute coverage data• Deliver to NTIA substantially complete set of all broadband mapping data• Continue administration of Non-Disclosure Agreements (NDAs) to providers• Process and convert provider supplied data (infrastructure and service area)• Assist smaller providers in the data collection/transfer/verification process• Submit Monthly Program Status Report February 7, February 14 and February 21, 2010
<ul style="list-style-type: none">• Continue administration of Non-Disclosure Agreements (NDAs) to providers• Process and convert provider supplied data (infrastructure and service area)• Process and convert Community Anchor Institutions data• Assist smaller providers in the data collection/transfer/verification process February 28, 2010
<ul style="list-style-type: none">• Provide final mapping products• Submit final set of maps



- Make each map available online for download in PDF and JPEG formats from the website
- Deliver to NTIA a complete set of all broadband mapping data
- Continue administration of Non-Disclosure Agreements (NDAs) to providers
- Process and convert provider supplied data (infrastructure and service area)
- Assist smaller providers in the data collection/transfer/verification process
- Submit Monthly Program Status Report

March 7, 2010

- Modification and/or verification of all coverage data and a final set of maps

September 1, 2010

- Commence with Semi-Annual updates through 2014.

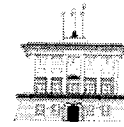
2.4 PROCESS FOR REPEATED DATA UPDATING (10%)

Once the relationships and agreements with broadband providers are established in the first phase of the mapping program, the OCIO Team will be well-positioned to meet the semi-annual update reporting requirements set by the NTIA mapping program. Connected Nation has a proven record of success in this area as well. Our existing state programs contemplate similar updating goals that we have always met in a timely and thorough way.

To ensure the success of such updates, clear and concise forms will be distributed to all broadband providers in the state that will clearly outline the data that needs to be reviewed and updated by the provider. Clear deadlines for submission of the data will be established. Deadlines will leave ample time for providers to process and submit data. Following our data gathering and mapping process, the mapping team will be able to assist any provider who may not have resources on hand to meet these data updating requirements. This service may be particularly valuable to small providers – both wire-line and wireless – who do not have sufficient in-house resources to meet these data reporting requests. Prior to submitting data to NTIA as specified in the *Technical Appendix A* of the NTIA Mapping NOFA and its clarification, all data will be subjected to a verification and validation process, as outlined above.

These regular data requests will be adequately coordinated with members of the JRT (PR Telecommunication Regulatory Board) prior to the distribution of the update forms. On May 2009, the JRT distributed Executive Order JRT-2002-OA-0002 which requested from telecommunication providers, information related to the provision of broadband services through form TRB-200. A meeting between the OCIO and the JRT will be held at the beginning of the project to adequately coordinate and/or merge all data collection efforts.

In addition to the required semi-annual updates of the broadband data and downloadable maps, the interactive broadband maps will be updated in real time. That is, the broadband inventory database for the interactive maps will be continually updated as network data is received from providers or through the ongoing data verification process. This real-time data updating is essential to ensure that broadband maps are current and therefore serve the needs of state officials and citizens alike.



2.5 PLANNING AND COLLABORATION (10%)

2.5.1 Planning

According to the NOFA, page 33, lines 696 through 703, “In addition to inclusiveness and collaboration, proposals including planning components will be evaluated based on how well the proposed planning process will identify service availability gaps, analyze problems and opportunities related to broadband deployment, and determine priorities as well as resolve conflicting priorities. Planning proposals must present the following: (1) the BDIA-related purpose as listed footnote 6; (2) the problem(s) to be addressed; (3) the proposed solution; (4) the anticipated outcomes of the project; and (5) the cost of such proposal in light of the previous factors.”

To effectively meet these evaluation criteria, the OCIO Team proposes to implement a planning program to achieve a number of the BDIA-related purposes. As with the mapping efforts, the recommended program would be led by the CIO with the main purpose of identifying service availability gaps, analyzing problems and opportunities related to broadband deployment, and establishing an Action Plan with clearly delineated priorities. The primary analytical tool for broadband planning staff will be Broadband STAT.

Specifically, the proposed planning program will address the following:

(1) BDIA-related purposes as listed in footnote 6:

- To develop and provide a baseline assessment of broadband deployment in the state;
- To identify and track the areas with low levels of broadband deployment, and, via statistical survey research, the rate at which residential and business users adopt broadband service and other related information technology services, and possible suppliers of such services;
- To identify via statistical survey research barriers to the adoption of broadband service and information technology services;
- To collaborate with broadband service providers and information technology companies to encourage deployment and use;
- To collect and analyze detailed market data concerning use and demand for broadband service;
- To facilitate information exchange regarding use and demand for broadband services between public and private sector users; and
- To create a geographic inventory map of broadband service.

This list accounts for seven of the ten BDIA-related purposes as listed in footnote 6 of the NOFA. The three purposes not included in this list are those that fall well outside the budget of the \$500,000 (county-level local technology planning teams and computer ownership programs) and the one purpose that is already accounted for within the scope of the NOFA requirements for data collection (identification of available broadband speeds).



LA FORTALEZA



(2) Address the state's challenge of coordinating and understanding:

- The statewide broadband landscape;
- Geographic areas in greatest need of support and/or subsidy;
- The barriers to broadband deployment in specific unserved and underserved areas, and the specific opportunities for achieving increased broadband deployment based on the market conditions and geographic/demographic variables of each area;
- The barriers to increased broadband adoption and computer ownership in order to develop effective programs for improving information technology use;
- The synergies and opportunities for coordination across both public and private sectors, including state agencies and broadband providers, to achieve increased broadband deployment and improved broadband adoption and computer ownership.
- Take into account existing studies that have been developed in the Island, as well as plans that are currently under development by the Government of Puerto Rico for economic development.

(3) Propose a solution and (4) anticipated outcomes by:

- Incorporating broadband planning questions into the data validation survey conducted through the mapping grant. This approach would create program efficiencies by piggybacking onto the survey used for data validation, in order to collect additional consumer survey data that identifies broadband adoption and computer ownership rates, barriers to broadband adoption and computer ownership, and detailed market data concerning the use and demand for broadband service. These data, in addition to the broadband mapping data, would feed the Broadband STAT tool, enabling a comprehensive picture of the supply and demand for broadband services across a state;
- Empowering a broadband planning team to work collaboratively through Broadband STAT to identify service availability gaps, analyze problems and opportunities related to broadband deployment, and determine priorities as well as resolving conflicting priorities.
- A potential recommendation of the Planning effort could be the establishment of a permanent Puerto Rico Broadband Task Force.
- It is proposed to hold meetings with interested parties to discuss relevant data developed as part of this project, and gather feedback of different perspectives for the sustainable deployment and adoption of broadband. For these meetings, public facilities will be facilitated by the OCIO. The inclusion of Regional Consortia in these meetings will be promoted, so that end-users can have a greater voice in the process.
- The resulting plan will establish goals and desired specific outcomes in the deployment of broadband on the island, providing strategies to increase the demand



for broadband, including content development; public relation/marketing campaigns; eGovernment; Training; Distance Learning and integrating Internet into the curriculum; Health Care and Telemedicine; Entertainment and Social Networking.

This planning proposal should meet all requirements of the SBDD NOFA, while directly targeting the evaluation criteria for the planning component of the SBDDG. Ultimately, the Puerto Rico broadband planning program could enable and drive additional federal funding opportunities for demand-side program opportunities, such as computer ownership programs and local planning teams, as well as supply-side infrastructure opportunities. The result will be a broadband planning framework that empowers data-driven, research-based analytics to maximize and coordinate broadband stimulus funding across all federal grant/loan programs.

Planning efforts are scheduled to commence on January 2010. By this date, the broadband map should be substantially completed.

2.5.2 Collaboration

As stated in the NOFA, collaboration with state-level agencies, local authorities, businesses and nonprofit organizations will be a critical component of any successful data collection or mapping effort. In this application, the collaboration strategies with service providers have been extensively covered. The OCIO has already established a solid work and collaborative relationship with state and local entities. As stated earlier, the OCIO is responsible for the centralized implementation and supervision of all infrastructure initiatives related to information technology (IT) and interoperable communications (IC) amongst all levels of government. Regular meetings are held between various government workgroups on topics related to broadband. In addition, as stated previously, the OCIO has reached an agreement with the Puerto Rico Department of Transportation and Public Works for the temporary transfer of one of their employees with significant experience in broadband and interoperability initiatives at the government level, to further demonstrate the collaboration between critical agencies for this purpose.

In addition, the OCIO has already coordinated meetings, and agreed to collaborate in initiatives related to Broadband, with Regional Consortiums (PR-TEC, INTECO, INTENE, DISUR and INTENOR). These Consortiums represent most of the municipalities in Puerto Rico and were created to promote municipal economic development and sound administrative practices. These consortiums will be key stakeholders and partners to properly assess and eliminate the barriers to the adoption of broadband in rural areas.

In addition, the OCIO proposes to develop a working relationship with the *Junta Reglamentadora de Telecomunicaciones de Puerto Rico* (JRT, by its Spanish acronym; also known as the Puerto Rico Telecommunications Regulatory Board) so that all efforts related to the mapping initiative are adequately coordinated and/or merged. Also, the OCIO has already held conversations with FCC personnel which oversee Puerto Rico to update them on the broadband initiatives, and to open up channels of communication between both entities.

BUDGET INFORMATION - Non-Construction Programs

OMB Approval No. 4040-0006

Expiration Date 07/30/2010

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Puerto Rico State Broadband and Development Program	11.558	\$	\$	\$ 2,425,012.00	\$ 743,620.00	\$ 3,168,632.00
2.						
3.						
4.						
5. Totals		\$	\$	\$ 2,425,012.00	\$ 743,620.00	\$ 3,168,632.00

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SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1)	(2)	(3)	(4)	
	Puerto Rico State Broadband and Development Program				
a. Personnel	\$ 515,853.00	\$	\$	\$	\$ 515,853.00
b. Fringe Benefits	128,961.00				128,961.00
c. Travel	166,373.00				166,373.00
d. Equipment	123,697.00				123,697.00
e. Supplies	56,213.00				56,213.00
f. Contractual	793,118.00				793,118.00
g. Construction	0.00				
h. Other	32,081.00				32,081.00
i. Total Direct Charges (sum of 6a-6h)	1,816,296.00				\$ 1,816,296.00
j. Indirect Charges	608,716.00				\$ 608,716.00
k. TOTALS (sum of 6i and 6j)	\$ 2,425,012.00	\$	\$	\$	\$ 2,425,012.00
7. Program Income	\$	\$	\$	\$	\$

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SECTION C - NON-FEDERAL RESOURCES				
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e)TOTALS
8. Puerto Rico State Broadband and Development Program	\$ <input type="text"/>	\$ <input type="text" value="743,620.00"/>	\$ <input type="text"/>	\$ <input type="text" value="743,620.00"/>
9. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
10. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
11. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
12. TOTAL (sum of lines 8-11)	\$ <input type="text"/>	\$ <input type="text" value="743,620.00"/>	\$ <input type="text"/>	\$ <input type="text" value="743,620.00"/>

SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
14. Non-Federal	\$ <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
15. TOTAL (sum of lines 13 and 14)	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT				
(a) Grant Program	FUTURE FUNDING PERIODS (YEARS)			
	(b)First	(c) Second	(d) Third	(e) Fourth
16. <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>
17. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
18. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
19. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
20. TOTAL (sum of lines 16 - 19)	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text"/>

SECTION F - OTHER BUDGET INFORMATION	
21. Direct Charges: <input style="width:90%;" type="text"/>	22. Indirect Charges: <input style="width:90%;" type="text"/>
23. Remarks: <input style="width:98%;" type="text"/>	

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CERTIFICATION REGARDING LOBBYING

U.S. DEPARTMENT OF COMMERCE

Applicants should also review the instructions for certification included in the regulations before completing this form. Signature on this form provides for compliance with certification requirements under 15 CFR Part 28, 'New Restrictions on Lobbying.' The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of Commerce determines to award the covered transaction, grant, or cooperative agreement.

LOBBYING

As required by Section 1352, Title 31 of the U.S. Code, and implemented at 15 CFR Part 28, for persons entering into a grant, cooperative agreement or contract over \$100,000 or a loan or loan guarantee over \$150,000 as defined at 15 CFR Part 28, Sections 28.105 and 28.110, the applicant certifies that to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, 'Disclosure Form to Report Lobbying,' in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure occurring on or before October 23, 1996, and of not less than \$11,000 and not more than \$110,000 for each such failure occurring after October 23, 1996.

As the duly authorized representative of the applicant, I hereby certify that the applicant will comply with the above applicable certification.

*** NAME OF APPLICANT**

Puerto Rico Governor's Office

*** AWARD NUMBER***** PROJECT NAME**

Puerto Rico State Broadband and Development Program

Prefix:

* First Name:

Middle Name:

Juan

Eugenio

* Last Name:

Rodriguez de Hostos

Suffix:

* Title: Chief Information Officer

* SIGNATURE:

Eileen De Jesus

* DATE:

08/28/2009

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C.1352

Approved by OMB
0348-0046

1. * Type of Federal Action: <input type="checkbox"/> a. contract <input checked="" type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	2. * Status of Federal Action: <input type="checkbox"/> a. bid/offer/application <input checked="" type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	3. * Report Type: <input checked="" type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change
4. Name and Address of Reporting Entity: <input checked="" type="checkbox"/> Prime <input type="checkbox"/> SubAwardee * Name: Office of the Chief Information Officer, Governor's Office * Street 1: PO Box 9020082 Street 2: _____ * City: San Juan State: PR: Puerto Rico Zip: 00902-0082 Congressional District, if known: _____		
5. If Reporting Entity in No.4 is Subawardee, Enter Name and Address of Prime: 		
6. * Federal Department/Agency: Department of Commerce	7. * Federal Program Name/Description: CFDA Number, if applicable: _____	
8. Federal Action Number, if known: _____	9. Award Amount, if known: \$ _____	
10. a. Name and Address of Lobbying Registrant: Prefix: _____ * First Name: n/a Middle Name: n/a * Last Name: n/a Suffix: _____ * Street 1: _____ Street 2: _____ * City: _____ State: _____ Zip: _____		
b. Individual Performing Services (including address if different from No. 10a) Prefix: _____ * First Name: n/a Middle Name: n/a * Last Name: n/a Suffix: _____ * Street 1: _____ Street 2: _____ * City: _____ State: _____ Zip: _____		
11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when the transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure. * Signature: Eileen De Jesus * Name: Prefix: _____ * First Name: Juan Middle Name: Eugenio * Last Name: Rodriguez de Hostos Suffix: _____ Title: CIO Telephone No.: 787-721-70000 Date: 08/28/2009		
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ASSURANCES - NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

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9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.
10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

* SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL Eileen De Jesus	* TITLE Chief Information Officer
* APPLICANT ORGANIZATION Puerto Rico Governor's Office	* DATE SUBMITTED 08/28/2009

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GOVERNMENT OF PUERTO RICO

LUIS G. FORTUÑO
GOVERNOR

August 11, 2009

Mr. Lawrence E. Strickling
Assistant Secretary for Communications and Information
National Telecommunications
and Information Administration (NTIA)
U.S. Department of Commerce
Herbert C. Hoover Building
1401 Constitution Avenue NW
Washington, DC 20230

Dear Mr. Strickling:

This is to certify that the Office of the Chief Information Officer of the Commonwealth of Puerto Rico is the single eligible entity in Puerto Rico to receive federal grant funding under the State Broadband Data and Development Grant Program.

Under the authority of Executive Order (Number OE-2009-009) and within the scope of the Office of the Governor, the Office of the Chief Information Officer is the centralized entity responsible for the implementation and supervision of all infrastructure initiatives related to information technology (IT) and interoperable communications (IC) amongst all levels of government.

The Government of Puerto Rico is confident that this program will advance much needed technology programs at the government level to best serve the economic development, and services to all our constituents and has my full support.

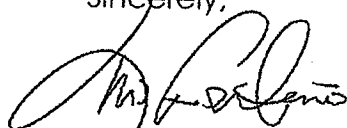
Should you require additional information, the primary point of contact is:

Mr. Lawrence E. Strickling
Page 2
August 11, 2009

Mr. Juan Eugenio Rodríguez
Chief Information Officer
Office of the CIO
PO Box 9020082
San Juan, PR 00922-0082
Telephone: (787) 721-7000
Fax: (787) 721-3336
Email: jerodriguez@fortaleza.gobierno.pr

An authorized alternate point of contact within the Office of the CIO is Ms. Maria I. Pou at mpou@fortaleza.gobierno.pr.

Sincerely,

A handwritten signature in black ink, appearing to read "Luis G. Fortuño", written over a horizontal line.

Luis. G. Fortuño

For a 20% match, PR needs \$356,180. The current match is listed at 620,246, a difference of 264,066. For GMIS, we will not use all of the in-kind in the "other" category. This is currently valued at 363,724. PR currently has \$256,521 in non-data and non-indirect match. We need an additional \$99,659. We will use the "other" category for this. We will decrease its value by 264,065. This leaves the in-kind value of "Other" at \$99,659.

ORIGINAL PROPOSAL

	Applicant	Federal Share	Total
Personnel	\$125,951	\$308,413	\$434,364
Personnel I	\$37,785	\$66,158	\$103,943
Travel	\$0	\$64,175	\$64,175
Equipment	\$55,000	\$72,751	\$127,751
Materials/	\$0	\$15,175	\$15,175
Subcontract	\$0	\$528,642	\$528,642
Constructio	\$0	\$0	\$0
Other	\$363,724	\$15,200	\$378,924
Total Direct	\$582,461	\$1,070,514	\$1,652,974
Total Indirect	\$37,785	\$354,207	\$391,993
	\$0	\$0	\$0
Total Costs	\$620,246	\$1,424,721	\$2,044,967

REDUCED MATCH FOR GMIS

	Applicant	Federal Share	Total
Personnel	\$125,951	\$308,413	\$434,364
Personnel I	\$37,785	\$66,158	\$103,943
Travel	\$0	\$64,175	\$64,175
Equipment	\$55,000	\$72,751	\$127,751
Materials/	\$0	\$15,175	\$15,175
Subcontract	\$0	\$528,642	\$528,642
Constructio	\$0	\$0	\$0
Other	\$99,659	\$15,200	\$114,859
Total Direct	\$318,395	\$1,070,514	\$1,388,909
Total Indirect	\$37,785	\$354,207	\$391,993
	\$0	\$0	\$0
Total Costs	\$356,181	\$1,424,721	\$1,780,902

Combined Five Year Broadband Planning and Two Year Mapping Budget, Federal Funds and Match

	Applicant Share	Federal Share	Total	Notes
Personnel Salaries	\$ 125,951	\$ 308,413	\$ 434,364	
Personnel Fringe Benefits	\$ 37,785	\$ 66,158	\$ 103,943	
Travel	\$ -	\$ 64,175	\$ 64,175	
Equipment	\$ 55,000	\$ 72,751	\$ 127,751	
Materials/Supplies	\$ -	\$ 15,175	\$ 15,175	
Subcontracts	\$ -	\$ 528,642	\$ 528,642	
Construction	\$ -	\$ -	\$ -	
Other	\$ 363,724	\$ 15,200	\$ 378,924	
Total Direct Costs	\$ 582,461	\$ 1,070,514	\$ 1,652,974	
Total Indirect Costs	\$ 37,785	\$ 354,207	\$ 391,993	
	\$ -	\$ -	\$ -	
Total Costs	\$ 620,246	\$ 1,424,721	\$ 2,044,967	

	MAPPING			
	Applicant Share	Federal Share	Total	Notes
Personnel Salaries	\$ 69,312	\$ 196,499	\$ 265,811	
Personnel Fringe Benefits	\$ 20,794	\$ 42,150	\$ 62,944	
Travel	\$ -	\$ 40,643	\$ 40,643	
Equipment	\$ 45,000	\$ 54,001	\$ 99,001	
Materials/Supplies	\$ -	\$ 15,175	\$ 15,175	
Subcontracts	\$ -	\$ 357,844	\$ 357,844	
Construction	\$ -	\$ -	\$ -	
Other	\$ 273,646	\$ 15,200	\$ 288,846	
Total Direct Costs	\$ 408,751	\$ 721,512	\$ 1,130,263	
Total Indirect Costs	\$ 20,794	\$ 204,635	\$ 225,429	
			\$ -	
Total Costs	\$ 429,545	\$ 926,147	\$ 1,355,692	

PLANNING (5-years)

	Applicant		Federal		Notes
	Share		Share	Total	
Personnel Salaries	\$ 56,639	\$	111,913	\$ 168,553	
Personnel Fringe Benefits	\$ 16,992	\$	24,008	\$ 41,000	
Travel	\$ -	\$	23,532	\$ 23,532	
Equipment	\$ 10,000	\$	18,750	\$ 28,750	
Materials/Supplies	\$ -	\$	-	\$ -	
Subcontracts	\$ -	\$	170,798	\$ 170,798	
Construction	\$ -	\$	-	\$ -	
Other	\$ 90,078	\$	-	\$ 90,078	
Total Direct Costs	\$ 173,709	\$	349,002	\$ 522,711	
Total Indirect Costs	\$ 16,992	\$	149,572	\$ 166,564	
				\$ -	
Total Costs	\$ 190,701	\$	498,574	\$ 689,275	

Personnel Salaries						
	GIS Manager OCIO	7,800	7,800	7,800	7,800	15,600
	CIO	3,600	3,600	3,600	3,600	7,200
	Communications Manager	6,000	6,000	6,000	6,000	8,400
	Communications Staff	1,500	1,500	1,500	1,500	2,100
	Translation Support	4,500	4,500	4,500	4,500	6,060
	Administrative Assistant	2,496	2,496	2,496	2,496	4,992
	Program Director	15,600	15,600	15,600	15,600	24,960
Total		41,496	0	41,496	27,816	69,312
Personnel Fringe Benefits						
	GIS Manager OCIO	2,340	2,340	2,340	2,340	4,680
	CIO	1,080	1,080	1,080	1,080	2,160
	Communications Manager	1,800	1,800	1,800	1,800	2,520
	Communications Staff	450	450	450	450	630
	Translation Support	1,350	1,350	1,350	1,350	1,818
	Administrative Assistant	749	749	749	749	1,498
	Program Director	4,680	4,680	4,680	4,680	7,488
Total		12,449	0	12,449	8,345	20,794
Travel						
						0
						0
						0
Total			0	0		0
Equipment						
	Allocation of Software and Hardware of the Centralized GIS Project	45,000	45,000	45,000	45,000	45,000
Total		45,000	0	45,000	0	45,000
Materials/Supplies						
						0
						0
						0
Total			0	0		0
Subcontracts						

Total	Community Outreach (Media Awareness)	10,000	10,000				10,000
	PRIFA Consultant - GIS Staff Specialist 1	34,450	34,450				47,970
	PRIFA Consultant - GIS Staff Specialist 2	11,300	11,300				11,300
	PRIFA Consultant - Compliance Coordinator	23,400	23,400				37,800
	PRIFA Consultant - Legal Support	12,000	12,000				16,000
	PRIFA Consultant - Project Manager	83,520	83,520				120,960
Total		174,670	174,670	69,360	69,360		244,030
Construction							
Total		0	0	0	0		0
Other							
Total	Water/Wastewater facilities (Data)	72,000	72,000				72,000
	Transmission and distribution electric power lines (Data)	72,000	72,000				72,000
	State and municipal roads (Data)	27,000	27,000				27,000
	Community institutions (Data)	18,000	18,000				18,000
	Aerial Photos, Satellite images (Data)	54,000	54,000				54,000
	Office Space and Furniture (Facilities)	7,500	7,500				15,000
	Utilities (Facilities)	2,164	2,164				4,329
	Parking (3) (Facilities)	900	900				1,800
	Dr. Luis Sanchez (In-Kind)	7,551	7,551				9,517
Total		261,115	0	261,115			273,646
Total Direct Costs		360,060	174,670	534,730	48,691	69,360	118,051
Indirect Costs							
Total Indirect Costs	GIS Manager OCIO	2,340	2,340				4,680
	CIO	1,080	1,080				2,160
	Communications Manager	1,800	1,800				2,520
	Communications Staff	450	450				630
	Translation Support	1,350	1,350				1,818
	Administrative Assistant	749	749				1,498
	Program Director	4,680	4,680				7,488
Total Indirect Costs		12,449	0	12,449			20,794
Total Costs		372,509	174,670	547,179	57,036	69,360	126,396

APPLICANT MAPBING LODGE		YEAR 1			YEAR 2			Total	Notes
Cost		Applicant Share	Federal Share	Total	Applicant Share	Federal Share	Total		
Personnel Salaries	GIS								
	Manager, GIS Services		1,650	1,650		1,716	1,716	3,366	
	GIS Analyst		3,432	3,432		3,123	3,123	6,555	
	GIS Director		1,540	1,540		1,602	1,602	3,142	
	Senior Manager, GIS Services		8,388	8,388		6,629	6,629	15,017	
	Stakeholder Relations					-			
	Director, Public Policy		3,201	3,201		3,329	3,329	6,530	
	Engineering					-			
	Director, Engineering & Technical Service		9,900	9,900		10,296	10,296	20,196	
	Research					-			
	Chief Policy Officer		2,310	2,310		2,402	2,402	4,712	
	Manager, Research Development		1,925	1,925		2,002	2,002	3,927	
	Research Analyst		5,544	5,544		5,766	5,766	11,310	
	Research Specialist 3		4,928	4,928		5,125	5,125	10,053	
	Research Specialist 4		1,897	1,897		1,973	1,973	3,870	
	Research Project Coordinator		2,391	2,391		2,486	2,486	4,877	
	Communications					-			
	Director of Communications		1,925	1,925		2,002	2,002	3,927	
	Communications Specialist 2		8,800	8,800		9,152	9,152	17,952	
	Communications QA		1,238	1,238		1,287	1,287	2,525	
	Project Management					-			
	Executive Director, Strategic Program Office		2,750	2,750		2,860	2,860	5,610	
	Project Manager 2		23,375	23,375		24,310	24,310	47,685	
	Project Coordinator 2		12,375	12,375		12,870	12,870	25,245	
	Total		97,568	97,568		98,931	98,931	196,499	
Personnel Fringe Benefits	Employer's FICA Tax		7,464	7,464		7,568	7,568	15,032	
	Unemployment Tax		488	488		495	495	983	
	Health/Dental/Vision Insurance		5,561	5,561		5,639	5,639	11,200	
	Disability & Life Insurance		585	585		594	594	1,179	
	Accrued Paid Time Off		3,512	3,512		3,562	3,562	7,074	
	SIMPLE Match		2,927	2,927		2,968	2,968	5,895	
	Gym Benefit		98	98		99	99	197	
	Professional Development		293	293		297	297	590	
	Total		20,928	20,928		21,222	21,222	42,150	
Travel	Airfare		10,500	10,500		6,240	6,240	16,740	
	Hotel		6,600	6,600		4,992	4,992	11,592	
	Rental Car		4,230	4,230		2,995	2,995	7,225	
	Per Diem		2,115	2,115		1,498	1,498	3,613	

	Mileage	924	924	549	549	1,473
Total		24,369	24,369	16,274	16,274	40,643
Equipment						
	Broadband Stat	42,000	42,000	10,500	10,500	52,500
	ESRI ArcInfo/ArcGIS Software	1,232	1,232	269	269	1,501
Total		43,232	43,232	10,769	10,769	54,001
Materials/Supplies						
	Computers - GIS Processing	3,000	3,000	-	-	3,000
	Computers	2,500	2,500	2,500	2,500	5,000
	Speed Test	2,400	2,400	500	500	2,900
	Spectrum Analyzer	4,000	4,000	-	-	4,000
	GPS Unit	275	275	-	-	275
Total		12,175	12,175	3,000	3,000	15,175
Subcontracts						
	Engineering Consultants	7,000	7,000	4,784	4,784	11,784
	Legal	10,625	10,625	4,420	4,420	15,045
	Research Consultant	1,800	1,800	1,872	1,872	3,672
	Research Survey	29,722	29,722	30,911	30,911	60,633
	ESRI BBStat Hosting	11,515	11,515	6,208	6,208	17,723
	ESRI Productions Support	4,957	4,957	-	-	4,957
Total		65,619	65,619	48,195	48,195	113,814
Construction						
Total						-
Other						
	Outreach	10,000	10,000	5,200	5,200	15,200
Total		10,000	10,000	5,200	5,200	15,200
Total Direct Costs	\$0	273,891	273,891	203,591	203,591	477,482
Total Indirect Costs		117,382	117,382	87,253	87,253	204,635
Total Costs	\$0	391,273	391,273	290,844	290,844	682,117



Substantive Budgets

Substantive Budgets		YEAR 1			YEAR 2			YEAR 3			YEAR 4			YEAR 5			TOTAL			Applicant Share (OCIO)								
Cost		Applicant Share	Federal Share	Total	Applicant Share	Federal Share	Total	Applicant Share	Federal Share	Total	Applicant Share	Federal Share	Total	Applicant Share	Federal Share	Total	Applicant Share	Federal Share	Total	Hourly Cost	Year 1 Hours	Year 2 Hours	Year 3 Hours	Year 4 Hours	Year 5 Hours	Fringe Benefits	Indirect Cost	
Personnel Salaries	Administrative Assistant	2,496		2,496				2,496		2,496				2,496		2,496	12,480	0	12,480	12	208	208	208	208	208	30.00%	30.00%	
	CIO	6,000		6,000				2,400		2,400				2,400		2,400	19,199	0	19,199	57.69	104	104	41.6	41.6	41.6	30.00%	30.00%	
	Program Director	9,360		9,360				3,120		3,120				3,120		3,120	24,960	0	24,960	30	312	208	104	104	104	30.00%	30.00%	
	Total	17,856	0	17,856				8,016	0	8,016				8,016	0	8,016	56,639	0	56,639									
Personnel Fringe Benefits	Administrative Assistant	749		749				749		749				749		749	3,744	0	3,744	12	208			208	208	30.00%	30.00%	
	CIO	1,800		1,800				720		720				720		720	5,760	0	5,760	57.69	104			41.6	41.6	30.00%	30.00%	
	Program Director	2,808		2,808				936		936				936		936	7,488	0	7,488	30	312			104	104	30.00%	30.00%	
	Total	5,357	0	5,357				2,405	0	2,405				2,405	0	2,405	16,992	0	16,992									
Travel																	0	0	0									
																	0	0	0									
																	0	0	0									
	Total		0	0					0	0					0	0	0	0	0	0								
Equipment	Allocation of Software and Hardware of the Centralized GIS Project	10,000		10,000				0		0				0		0	10,000	0	10,000									
		10,000	0	10,000				0	0	0				0	0	0	10,000	0	10,000									
	Total																											
Materials/Supplies																	0	0	0									
																	0	0	0									
																	0	0	0									
	Total		0	0					0	0					0	0	0	0	0	0								
Subcontracts																	0	0	0									
																	0	0	0									
																	0	0	0									
	Total		0	0					0	0					0	0	0	0	0	0								
Construction																	0	0	0									
																	0	0	0									
																	0	0	0									
	Total		0	0					0	0					0	0	0	0	0	0								
Other	Water/Wastewater facilities (Data)	8,000		8,000				0		0				0		0	8,000	0	8,000									
	Transmission and distribution electric power lines (Data)	8,000		8,000				0		0				0		0	8,000	0	8,000									
	State and municipal roads (Data)	8,000		8,000				0		0				0		0	3,000	0	3,000									
	Community institutions (Data)	2,000		2,000				0		0				0		0	2,000	0	2,000									
	Proposed infrastructure (Data)	2,000		2,000				0		0				0		0	2,000	0	2,000									
	Aerial Photos, Satellite Images (Data)	4,000		4,000				0		0				0		0	4,000	0	4,000									
	Office Space and Furniture (Facilities)	5,000		5,000				5,000		5,000				5,000		5,000	25,000	0	25,000									
	Utilities (Facilities)	2,443		2,443				1,443		1,443				1,443		1,443	7,214	0	7,214									
	Conference facilities (Facilities)	1,080		1,080				1,080		1,080				1,080		1,080	5,400	0	5,400									
	Parking (2) (Facilities)	600		600				600		600				600		600	3,000	0	3,000									
	Eng. And Tech Support (Dr. Luis Sanchez, In	7,488		7,488				3,744		3,744				3,744		3,744	22,464	0	22,464									
	Total	42,611	0	42,611				11,867	0	11,867				11,867	0	11,867	90,078	0	90,078									
	Total Direct Costs	75,823	0	75,823	31,023	0	31,023	22,288	0	22,288	22,288	0	22,288	22,288	0	22,288	173,709	0	173,709									
	Indirect Costs	Administrative Assistant	749		749				749		749				749		749	3,744	0	3,744								
		CIO	1,800		1,800				720		720				720		720	5,760	0	5,760								
		Program Director	2,808		2,808				936		936				936		936	7,488	0	7,488								
		Total	5,357	0	5,357				2,405	0	2,405				2,405	0	2,405	16,992	0	16,992								
	Total Costs	81,180	0	81,180	35,444	0	35,444	24,692	0	24,692	24,692	0	24,692	24,692	0	24,692	190,701	0	190,701									

80,000
80,000
80,000
30,000
20,000
20,000
40,000

Cost	FICA			FICA			FICA			FICA			FICA			Total	Notes
	Applicant Share	Federal Share	Total	Applicant Share	Federal Share	Total	Applicant Share	Federal Share	Total	Applicant Share	Federal Share	Total	Applicant Share	Federal Share	Total		
Personnel Salaries																	
Broadband Planning Staff																	
Project Manager 2		23,375	23,375		24,310	24,310		5,056	5,056		5,259	5,259		5,469	5,469	63,469	
Research																	
Chief Policy Officer	2,307	2,307	2,399	2,399		2,495	2,495		2,595	2,595		2,699	2,699		2,699	12,494	
Manager, Research Development	1,922	1,922	1,999	1,999		2,079	2,079		2,162	2,162		2,249	2,249		2,249	10,411	
Research Specialist 2	2,328	2,328	2,421	2,421		2,518	2,518		2,618	2,618		2,723	2,723		2,723	12,608	
Research Project Coordinator	2,387	2,387	2,483	2,483		2,582	2,582		2,686	2,686		2,793	2,793		2,793	12,931	
Total	-	32,319	32,319	-	33,612	33,612	-	14,730	14,730	-	15,320	15,320	-	15,932	15,932	111,913	
Personnel Fringe Benefits																	
Employer's FICA Tax		2,472	2,472		2,571	2,571		1,127	1,127		1,172	1,172		1,219	1,219	8,561	
Unemployment Tax		162	162		168	168		74	74		77	77		80	80	561	
Health/Dental/Vision Insurance		1,842	1,842		1,916	1,916		840	840		873	873		908	908	6,379	
Disability & Life Insurance		194	194		202	202		88	88		92	92		96	96	672	
Accrued Paid Time Off		1,163	1,163		1,210	1,210		530	530		552	552		574	574	4,029	
SIMPLE Match		970	970		1,008	1,008		442	442		460	460		478	478	3,358	
Gym Benefit		32	32		34	34		15	15		15	15		16	16	112	
Professional Development		97	97		101	101		44	44		46	46		48	48	336	
Total	-	6,932	6,932	-	7,210	7,210	-	3,160	3,160	-	3,287	3,287	-	3,419	3,419	24,008	
Travel																	
Airfare		3,750	3,750		3,120	3,120		1,622	1,622		1,687	1,687		1,755	1,755	11,934	
Hotel		2,000	2,000		1,664	1,664		433	433		450	450		468	468	5,015	
Rental Car		1,350	1,350		1,123	1,123		389	389		405	405		421	421	3,689	
Per Diem		675	675		562	562		195	195		202	202		211	211	1,844	
Mileage		330	330		275	275		143	143		148	148		154	154	1,050	
Total	-	8,105	8,105	-	6,743	6,743	-	2,782	2,782	-	2,893	2,893	-	3,009	3,009	23,532	
Equipment																	
Broadband Stat		15,000	15,000		3,750	3,750		-	-		-	-		-	-	18,750	
Total	-	15,000	15,000	-	3,750	3,750	-	-	-	-	-	-	-	-	-	18,750	
Materials/Supplies																	
Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subcontracts																	
Research and Survey Consultants		54,779	54,779		34,160	34,160		25,619	25,619		25,620	25,620		25,620	25,620		Primarily personnel costs. Subcontractor not yet selected.
One-Day Workshop Logistics		5,000	5,000													5,000	Estimated assistance for the workshop including meals
Total	-	59,779	59,779	-	34,160	34,160	-	25,619	25,619	-	25,620	25,620	-	25,620	25,620	170,798	
Construction																	
Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Other																	
Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total Direct Costs	-	122,135	122,135	-	85,475	85,475	-	46,291	46,291	-	47,120	47,120	-	47,980	47,980	349,002	
Total Indirect Costs	-	52,344	52,344	-	36,632	36,632	-	19,839	19,839	-	20,194	20,194	-	20,563	20,563	149,572	
Total Costs	-	174,479	174,479	-	122,108	122,108	-	66,130	66,130	-	67,314	67,314	-	68,543	68,543	498,574	