

**U.S. DEPARTMENT OF COMMERCE**

**Performance Progress Report**

2. Award Or Grant Number  
72-50-M09040

4. Report Date (MM/DD/YYYY)  
10/29/2010

1. Recipient Name  
Puerto Rico Governor's Office

6. Designated Entity On Behalf Of:  
N/A

3. Street Address  
PO BOX 9020082

8. Final Report?  Yes  No  
9. Report Frequency  
 Quarterly  
 Semi Annual  
 Annual  
 Final

5. City, State, Zip Code  
San Juan, Puerto Rico, 00902-0082

7. Project / Grant Period  
Start Date: (MM/DD/YYYY)  
12/20/2009

7a. End Date: (MM/DD/YYYY)  
12/19/2014

7b. Reporting Period End Date:  
09/30/2010

9a. If Other, please describe:  
N/A

**10. Broadband Mapping**

10a. Provider Table

Number of Providers Identified	Number of Providers Contacted	Number of Agreements Reached for Data Sharing	Number of Partial Data Sets Received	Number of Complete Data Sets	Number of Data Sets Verified
17	17	11	1	9	9

10b. Are you submitting the required PROVIDER DATA by using the Excel spreadsheet provided by the SBDD grants office?  Yes  No

10c. Have you encountered challenges with any providers that indicate they may refuse to participate in this project?  Yes  No

10d. If so, describe the discussions to date with each of these providers and the current status

Aeronet Wireless: On April 13th the mapping agent spoke with the provider about the initiative and process for participating. The provider expressed concern over the time investment for providing the data considering the number of transmission locations they have. In follow-up to the conversation, the mapping agent and provider exchanged several e-mails on April 13th clarifying the process and addressing questions and concerns. The mapping agent then called and followed with e-mails on April 16, 20, 21, 22, 27, and 29 encouraging participation. Having received no response, the provider was informed of the status change to "Refused to Participate." The mapping agent attempted to contact the provider again on June 25, July 1, August 20, and September 15 and 28 but the provider remains unresponsive.

10e. If you are collecting data through other means (e.g. data extraction, extrapolation, etc), please describe your progress to date and the relevant activities to be undertaken in the future

We have not collected any data through extraction programs.

10f. Please describe the verification activities you plan to implement

ESRI is deploying and hosting Connected Nation's BroadbandStat (BBStat) web application. ESRI will house the customized BBStat application in their highly-available, monitored and managed environment. The scope of services includes setting up a staging environment for data verification and compatibility as well as a production environment for client access.

Our contractor Connected Nation also collects consumer feedback in the form of broadband inquiries. These inquiries represent any type of communication received from the public regarding broadband service. Once broadband inquiries are received across the state, this information is overlaid with the broadband availability information which was collected through the SBDD program. This allows for a real-world comparison of the broadband landscape to the information received from broadband inquiries. Broadband inquiries are able to provide three types of information: 1) residents who do not have broadband but want it; 2) residents who have broadband but want a different provider; and 3) residents who do not have broadband, but the broadband inventory maps indicate that they do. If residents within a region state that they are without broadband, but the broadband inventory maps show otherwise, this allows Connected Nation to approach the providers within that area in an effort to trim down their coverage to more accurately represent real-world availability on the ground.

Before December 31, 2010 we will target an additional 4 randomly selected companies in order to achieve a total field validation rate equal to or exceeding 20%.

10g. Have you initiated verification activities?  Yes  No

10h. If yes, please describe the status of your activities

BroadbandStat was launched publicly during this quarter on the Connect Puerto Rico website and received a total of 162 visits between September 17, 2010 and September 30, 2010.

During this quarter, the Connect Puerto Rico project has received a total of 9 broadband inquiries.

As of the date of this report several key milestones and indicators are worthy of mentioning in order for NTIA to have a better understanding of the provider landscape on the island of Puerto Rico.

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. There is a relatively low degree of competition among internet service providers and constructing new infrastructure is costly due to Puerto Rico's mountainous topography and costs of shipping. The Connect Puerto Rico staff has identified 17 broadband providers (offering speeds of at least 768 kbps x 200 kbps) with just under 50% of those companies voluntarily contributing data for the augmentation of State Broadband Data & Development Grant program. The Connect Puerto Rico staff has met with 6 of the 8 contributing providers and on September 17, 2010 launched a fully interactive map (BroadbandStat) in front of the island's broadband providers, government officials, representative from Community Anchor Institutions, and consumers at large.

Forty-three field validation studies have occurred on those 6 providers which accounts for a 35.29% completion rate. Tests included (i) mobile broadband and 3G services in Carolina, Ponce, Salinas, Villalba, San Juan, Salinas, and Arecibo; (ii) backhaul services in San Juan and Fajardo; (iii) DSL services in Carolina, Ponce, Salinas, Villalba, Cespedes, Barceloneta; and (iv) cable modem services in Barceloneta, Arecibo and Fajardo.

10i. If verification activities have not been initiated please provide a projected time line for beginning and completing such activities

N/A

### **Staffing**

10j. How many jobs have been created or retained as a result of this project?

4.78

10k. Is the project currently fully staffed?  Yes  No

10l. If no, please explain how any lack of staffing may impact the project's time line and when the project will be fully staffed

N/A

10m. When fully staffed, how many full-time equivalent (FTE) jobs do you expect to create or retain as a result of this project?

4.78

10n. Staffing Table

Job Title	FTE %	Date of Hire
Associate Counsel	3.00	04/10/2010
Business Programmer Analyst	4.00	04/10/2010
CAI Data Analyst	4.00	04/10/2010
CAI Data Manager	7.00	04/10/2010
ETS Analyst	1.00	04/10/2010
ETS Manager	5.00	04/10/2010
ETS Sr. Analyst	24.00	04/10/2010
General Counsel	3.00	04/10/2010
GIS Analyst	1.00	04/10/2010
GIS Intern	14.00	04/10/2010
GIS Services Manager	9.00	04/10/2010
Outreach & Awareness Manager	7.00	04/10/2010
Outreach & Awareness Specialist	29.00	04/10/2010
Project Coordinator	3.00	04/10/2010
Project Management Director	2.00	04/10/2010
Project Manager	42.00	04/10/2010
Provider Relations Manager	7.00	04/10/2010
Provider Relations Specialist	8.00	04/10/2010
Research & GIS Analyst	8.00	04/10/2010
Research Analyst	100.00	04/10/2010
Research Analyst	100.00	04/10/2010
Research Analyst	22.00	04/10/2010
Research Manager	12.00	04/10/2010
State Services Manager	8.00	04/10/2010
State Services Specialist	1.00	04/10/2010
State Services Sr. Specialist	54.00	04/10/2010

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## Sub Contracts

### 10o. Subcontracts Table

Name of Subcontractor	Purpose of Subcontract	RFP Issued (Y/N)	Contract Executed (Y/N)	Start Date	End Date	Federal Funds	In-Kind Funds
Connect Puerto Rico	Mapping and planning activities	Y	Y	04/10/2010	12/14/2014	1,180,691	0
						Add Row	Remove Row

### Funding

10p. How much Federal funding has been expended as of the end of the last quarter? \$469,994      10q. How much Remains? \$2,063,684

10r. How much matching funds have been expended as of the end of last quarter? \$116,097      10s. How much Remains? \$524,131

### 10t. Budget Worksheet

Mapping Budget Element	Federal Funds Granted	Proposed In-Kind	Total Budget	Federal Funds Expended	Matching Funds Expended	Total Funds Expended
Personal Salaries	\$244,030	\$97,850	\$341,880	\$13,398	\$4,763	\$18,161
Personnel Fringe Benefits	\$0	\$20,000	\$20,000	\$0	\$1,334	\$1,334
Travel	\$0	\$0	\$0	\$0	\$0	\$0
Equipment	\$0	\$55,000	\$55,000	\$0	\$0	\$0
Materials / Supplies	\$0	\$0	\$0	\$0	\$0	\$0
<b>Subcontracts Total</b>	<b>\$2,278,668</b>	<b>\$0</b>	<b>\$2,278,668</b>	<b>\$456,596</b>	<b>\$0</b>	<b>\$456,596</b>
Subcontract #1	\$2,278,668	\$0	\$2,278,668	\$456,596	\$0	\$456,596
Subcontract #2	\$0	\$0	\$0	\$0	\$0	\$0
Subcontract #3	\$0	\$0	\$0	\$0	\$0	\$0
Subcontract #4	\$0	\$0	\$0	\$0	\$0	\$0
Subcontract #5	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$10,980	\$467,378	\$478,358	\$0	\$110,000	\$110,000
<b>Total Direct Costs</b>	<b>\$2,533,678</b>	<b>\$640,228</b>	<b>\$3,173,906</b>	<b>\$469,994</b>	<b>\$116,097</b>	<b>\$586,091</b>
Total Indirect Costs	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Costs</b>	<b>\$2,533,678</b>	<b>\$640,228</b>	<b>\$3,173,906</b>	<b>\$469,994</b>	<b>\$116,097</b>	<b>\$586,091</b>
<b>% Of Total</b>	<b>80</b>	<b>20</b>	<b>100</b>	<b>80</b>	<b>20</b>	<b>100</b>

## Hardware / Software

10u. Has the project team purchased the software / hardware described in the application?  Yes  No

10v. If yes, please list

Hardware/software purchases for the project to date include the following:

SOFTWARE	COST
• Broadband Stat	\$ 69,000.00
• ESRI ArchInfo/ArcGIS Software and Maintenance	\$ 1,415.51
• Computers	\$ 962.00
• Ookla Net Metrics Speed Test Software	\$ 2,686.00

10w. Please note any software / hardware that has yet to be purchased and explain why it has not been purchased

Remaining purchases may include SQL server for mapping geodatabase, SQL server software, multiple dedicated storage server, security application, additional backup replication solution, computers, a spectrum analyzer, GPS units, BroadbandStat maintenance, ESRI ArchInfo/ArcGIS maintenance, and speed test updates as well as computers and software maintenance.

10x. Has the project team purchased or used any data sets?  Yes  No

10y. If yes, please list

N/A

10z. Are there any additional project milestones or information that has not been included?  Yes  No

10aa. If yes, please list

- \* The Office of the Governor was awarded \$1,108,957 by the NTIA under the State Broadband Data and Development Grant Program to extend broadband data collection activities for an additional three years and to identify and implement best practices
- \* Maintained and updated the budget/finance cost model for Connect Puerto Rico
- \* Revised the project schedule and work breakdown structure (WBS) with the revised SBDD timeline
- \* Updated the Connect Puerto Rico website to include an English and Spanish version
- \* Continued to process speed tests, technology assessments, and broadband inquiries from the Connect Puerto Rico website
- \* Updated the project communications plan and outreach strategy
- \* Produced and distributed monthly status reports, data collection activity log and website statistics to the Connect Puerto Rico project team
- \* Distributed outreach letters and emails, in English and Spanish, to Community Anchor Institutions with the assistance of Puerto Rico's Office of Chief Information Officer (OICO)
- \* Continued to identify and collect data from Community Anchor Institutions within the Commonwealth of Puerto Rico
- \* Distributed and executed NDAs with the broadband provider community
- \* Continued to solicit broadband coverage datasets from the provider community
- \* Distributed broadband coverage datasets to the GIS Mapping team for processing
- \* Conducted field validation tests of broadband provider data in and around several Puerto Rican communities
- \* Created the Puerto Rico BroadbandStat instance with updated data layers and broadband maps
- \* Launched the Puerto Rico BroadbandStat application via press release and webinar
- \* Conducted demonstrations of the Puerto Rico BroadbandStat application
- \* Completed the analysis of raw data from the Puerto Rico residential broadband survey
- \* Compiled and delivered the results of the Puerto Rico residential broadband survey
- \* Conducted a business broadband survey and initiated the analysis process of the raw data

10bb. Please describe any challenge or obstacle that you have encountered and detail the mitigation strategies the project team is employing

Time continues to be of the essence. We continue to assign resources to the extent practical in order to meet the predetermined deadline.

10cc. Please provide any other information that you think would be useful to NTIA as it assesses your Broadband Mapping Project

No additional information to report at this time.

## 11. Broadband Planning

11a. Please describe progress made against all goals, objectives, and milestones detailed in the approved Project Plan. Be sure to include a description of each major activity / milestone that you plan to complete and your current status

On behalf of the government of Puerto Rico (PR), Connected Nation (CN) is working with subcontractors to collect and analyze demand-side data through statistical telephone surveys. The surveys collect data on broadband and computer use and barriers to

use among residents by demographic and businesses by size and industry sector. CN provided residential survey results to Puerto Rico in Q3, 2010. In addition, CN designed the 2010 PR business survey, which was conducted by Estudios Tecnicos in Q3, 2010. Analysis of this data commenced in Q3, 2010, with results to be released in Q4, 2010. Updates to the residential and business surveys are scheduled to occur in Q1, 2011 and Q3, 2011, respectively.

This data was analyzed along with supply-side broadband data gathered through the PR SBDD mapping grant. The primary tool for this ongoing analysis is BroadbandStat, an interactive, web-based GIS application that offers location-based consumer feedback on the accuracy of the map, as well as an interactive tool for data analysis, planning, and decision-making.

Connect Puerto Rico delivered a Technical Memorandum to the Puerto Rico Office of the CIO on September 24. The technical memorandum, titled The Broadband Adoption Gap in Puerto Rico: Scope of the Challenge and Strategies to Address It, analyzes the residential survey data collected in Puerto Rico and suggests a series of strategies to address the adoption gap. In line with the Project Plan, Connect Puerto Rico will continue to work with the Office of the CIO to build upon these analyses and recommendations towards a Broadband Strategic Plan for Puerto Rico by end 2011.

11b. Please describe any challenge or obstacle that you have encountered and detail the mitigation strategies the project team is employing  
Due to the absence of other providers of the same technology type with which a provider's specific service area can be aggregated, the display of broadband availability by certain technology types will ultimately isolate a single provider's coverage area by census block. This compounds the heightened sensitivity toward confidentiality on the island. The mitigation strategy has been to preview applicable map displays with affected providers for final approval prior to public release.

11c. Does the Project Team anticipate any changes to the project plan for Broadband Planning?  Yes  No

11d. If yes, please describe these anticipated changes. Please note that NTIA will need to approve changes to the Project Plan before they can be implemented

N/A

## Funding

11e. How much Federal funding has been expended as of the end of the last quarter? \$0

11f. How much Remains? \$0

11g. How much matching funds have been expended as of the end of last quarter? \$0

11h. How much Remains? \$0

### 11i. Planning Worksheet

Planning Budget Element	Federal Funds Granted	Proposed In-Kind	Total Budget	Federal Funds Expended	Matching Funds Expended	Total Funds Expended
Personal Salaries	\$0	\$0	\$0	\$0	\$0	\$0
Personnel Fringe Benefits	\$0	\$0	\$0	\$0	\$0	\$0
Travel	\$0	\$0	\$0	\$0	\$0	\$0
Equipment	\$0	\$0	\$0	\$0	\$0	\$0
Materials / Supplies	\$0	\$0	\$0	\$0	\$0	\$0
Subcontracts Total	\$0	\$0	\$0	\$0	\$0	\$0
Subcontract #1	\$0	\$0	\$0	\$0	\$0	\$0
Subcontract #2	\$0	\$0	\$0	\$0	\$0	\$0
Subcontract #3	\$0	\$0	\$0	\$0	\$0	\$0
Subcontract #4	\$0	\$0	\$0	\$0	\$0	\$0
Subcontract #5	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$0
Total Direct Costs	\$0	\$0	\$0	\$0	\$0	\$0
Total Indirect Costs	\$0	\$0	\$0	\$0	\$0	\$0
Total Costs	\$0	\$0	\$0	\$0	\$0	\$0
% Of Total	0	0	0	0	0	0

### Additional Planning Information

11j. Are there any additional project milestones or information that has not been included?

No additional information to report at this time.

11k. Please describe any challenge or obstacle that you have encountered and detail the mitigation strategies the Project Team is employing

The contractor Connected Nation has been relying heavily on Puerto Rico's recommendations to ensure that the work, as well as the work of the subcontractors, exceeds expectations. During Q3, 2010, there were no significant obstacles during the planning process.

11l. Please provide any other information that you think would be useful to NTIA as it assesses your Broadband Mapping Project

No additional information to report at this time.

12. Certification: I certify to the best of my knowledge and belief that this report is correct and complete for performance of activities for the purpose set forth in the award documents.

12a. Typed or Printed Name and Title of Authorized Certifying Official

12c. Telephone  
(area code, number, and extension)

12d. Email Address

12b. Signature of Authorized Certifying Official

12e. Date Report Submitted  
(Month, Day, Year)

Performance Progress Report  
OMB Approval Number: 0660-0034  
Expiration Date: 08/31/2010