

U.S. DEPARTMENT OF COMMERCE

Performance Progress Report

2. Award Or Grant Number

34-50-M09066

4. Report Date (MM/DD/YYYY)

07-02-2012

1. Recipient Name

State of New Jersey

6. Designated Entity On Behalf Of:

NJ Office of Information Technology

3. Street Address

300 Riverview Plaza,

8. Final Report?

Yes

No

9. Report Frequency

Quarterly

Semi Annual

Annual

Final

5. City, State, Zip Code

Trenton, NJ 08625-0212

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

02-01-2010

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

01-31-2015

7b. Reporting Period End Date:

06-30-2012

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
0	0	0	0	0	0

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

Two providers who provided data in the past indicated they would not submit data: OneCommunications informed us via email that they did not believe their data was complete or accurate enough to submit; Sidera informed us that they no longer serve customers in New Jersey. Six providers who had previously submitted data did not respond to our multiple requests for new data. For three (Advanza, NBS and New Edge), we re-submitted the data they had provided six months ago. For the other three (Broadview, Cavalier Wave2Wave), the data was more than six months old and we have information that they were involved in mergers or bankruptcy proceedings. Hotwire Communications has repeatedly declined to participate in this program due to the burden of collecting data.

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 provided a summary of the various data sources we have used both for collection and to support our validation activities. Two providers (Cogent Communications, Jersey Shore Wireless) referred us to the data available on their public web sites in lieu of submission. We have used web-based sources and aggregators to get information on potential broadband service providers and resellers, such as, the Broadband Internet Directory (<http://broadband.theispguide.com/>), www.dslone.net/nj, www.globalspec.com, www.broadbandinfo.com, etc. We continue to use the results of our survey of 3,101 NJ residents and the FCC data for verification. We have collected Community Anchor institution (CAI) data, including reference data, broadband data from institutions via our website, and data from NJEDge, the NJ Hospital Association, the NJ Department of Health and Senior Services and NJ applications to the federal e-Rate program.

We use NJ placenames data from the following sources: State of NJ geographic information (https://njgin.state.nj.us/NJ_NJGINExplorer/DataDownloads.jsp), Federal Government placename information (http://geonames.usgs.gov/domestic/download_data.htm), and US Postal Service data (available for a fee).

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

The following list includes verification activities that we have already implemented:

1. Verify Provider Name & FRN vs.FCC data by checking the (dbaname, provname, frn)-tuple against our FRN reference table.
2. Verify coverage area and other data elements are within NJ.
3. Address verification via geo-coding: We use several geo-coding capabilities to verify specific data elements.
4. Review all data elements for uniqueness and validity; i.e., census block ids, TIGERLine street segments, speed tier codes, etc.
5. Technology and speed consistency checks vs. known provider capabilities and/or Web site advertisements.
6. Visual inspection of individual provider coverage maps for outlier detection.
7. Data consistency across tables via basic cross-table consistency checks.
8. Validate all data submissions against NTIA validation rule set.
9. Compare cable coverage areas against municipalities in their franchise area.

- 10. Compared provider serving areas against providers reported by users in a telephone survey of 3100 NJ households.
 - 11. Doughnut hole study, performing self-consistency check of submitted wireline data. Details are found in Methodology report.
 - 12. Conducted a limited longitudinal study of service plan offerings and prices from major providers using a panel survey design.
 - 13. Conducted geospatial analysis of geographic consistency and verification of wireline data.
 - 14. Initiated data collection on Resellers.
 - 10g. Have you initiated verification activities? Yes No
 - 10h. If yes, please describe the status of your activities
- Activities 1 through 14 in the response to Question 10f have been implemented and are in use for verification. Activity 12 from the response to Question 10f has also been implemented. It is being extended and automated will be used for verification when complete. There are eight verification activities which we have not yet implemented:
- 15. We investigated verification against cell tower location data from NJ OIT emergency communications office but have not identified a suitable source of reference data. We are currently investigating other potential sources.
 - 16. Crowd sourcing applications for speed tests.
 - 17. Crowd sourced methods and incentives for collecting data on wireless availability.
 - 18. Continue data collection on Resellers and initiate data collecton on public Wi-Fi hot spots.
 - 19. Implement improvements to data processing via parameterization of scripts.
 - 20. Enhance functionality of the website for CAI data input.
 - 21. Develop a data confidence scale.
 - 22. Revise and upgrade data confidence scale.

- 10i. If verification activities have not been initiated please provide a projected time line for beginning and completing such activities Below are the time frames for the verification activities to be implemented with the amended funds:
- 15. We investigated verification against cell tower location data from NJ OIT emergency communications office but have not identified a suitable source of reference data. We are currently investigating other potential sources. (Project year 3)
 - 16. Crowd sourcing applications for speed tests. (Project year 3/4)
 - 17. Crowd sourced methods and incentives for collecting data on wireless availability. (Project year 3/4)
 - 18. Continue data collection on Resellers and initiate data collection on public Wi-Fi hot spots. (Project year 3/4)
 - 19. Implement improvements to data processing via parameterization of scripts. (Project year 3)
 - 20. Enhance functionality of the website for CAI data input. (Project year 3)
 - 21. Develop a data confidence scale. (Project year 3)
 - 22. Revise and upgrade data confidence scale. (Project year 4)

Staffing

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

As a result of the Broadband Mapping program, 2.8 positions were retained.

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?

N/A

10n. Staffing Table

Job Title	FTE %	Date of Hire
Executive Director/Senior Principal Engineer	30	03/01/2010
Principal Engineer	100	03/01/2010
Senior Systems Engineer	100	03/01/2010
Senior Systems Engineer	10	03/01/2010
Principal Engineer	40	03/01/2010

Add Row
Remove Row

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
Applied Communication Sciences	Perform data collection and planning activities	Y	Y	05/25/2010	01/31/2015	3,473,670	420,000
TBD	TBD	N	N		01/31/2015	163,717	60,304

Add Row

Remove Row

Funding

10p. How much Federal funding has been expended as of the end of the last quarter? \$1,327,488 10q. How much Remains? \$3,598,618

10r. How much matching funds have been expended as of the end of last quarter? \$1,070,863 10s. How much Remains? \$246,710

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	\$840,000	\$358,286	\$1,198,286	\$0	\$174,599	\$174,599
Personnel Fringe Benefits	\$292,656	\$128,983	\$421,639	\$0	\$62,544	\$62,544
Travel	\$30,927	\$0	\$30,927	\$0	\$880	\$880
Equipment	\$0	\$0	\$0	\$0	\$0	\$0
Materials / Supplies	\$125,136	\$350,000	\$475,136	\$0	\$140,000	\$140,000
Subcontracts Total	\$3,637,387	\$480,304	\$4,117,691	\$1,327,488	\$692,840	\$2,020,328
Subcontract #1	\$3,473,670	\$420,000	\$3,893,670	\$1,327,488	\$692,840	\$2,020,328
Subcontract #2	\$163,717	\$60,304	\$224,021	\$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	\$4,926,106	\$1,317,573	\$6,243,679	\$1,327,488	\$1,070,863	\$2,398,351
Total Indirect Costs	\$0	\$0	\$0	\$0	\$0	\$0
Total Costs	\$4,926,106	\$1,317,573	\$6,243,679	\$1,327,488	\$1,070,863	\$2,398,351
% Of Total	79	21	100	55	45	100

Hardware / Software

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

10v. If yes, please list

We have purchased the following hardware and software.

PowerEdge T110 Server at a price of \$1229.26, purchased on July 2010.

TerraGo Publisher for ArcGIS at a price of \$2,295.00 July, purchased on July 2011.

TerraGo Publisher for ArcGIS Support Subscription at a price of \$459.00 purchased on July 2011

No new software was purchased during the quarter ending in June 30, 2012.

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

We are currently processing the renewal of the ESRI ArcGIS Server and Desktop licenses which expired on 6/30/12.

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

10y. If yes, please list

We have purchased two sets of data as listed below:

First, the USPS AISVIEW DVD, at a price of \$176.57, was purchased in May 2010

Second, we have purchased two annual licenses for ESRI data:

We purchased FESRI StreetMap Premium Mapping/Display NAVTEQ State (New Jersey) (1 Year) Term License for \$400.00 in September 2010.

We purchased ESRI StreetMap Premium Geocode NAVTEQ State (New Jersey) (1 Year) Term License for \$600.00 in September 2010.

No new data were purchased during the quarter ending in June 30, 2012.

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

10aa. If yes, please list

N/A

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

1. CAI identification and outreach is time-consuming and response rates are low. We implemented a web-based data submission capability on our website and performed outreach through the 21 counties in the state. We partnered with the New Jersey Department of Education and have included questions necessary for our CAI reporting in a mandatory survey of schools being conducted by the DOE in May 2012. We expect to receive CAI data from the NJ DoE by the end of July, after they have been cleaned. To further ease data submissions by CAIs, we will be making improvements to our website that significantly automate the process. (See the answer to questions 10h / 10i, item 20.)

2. Sometimes multiple government offices are co-located in one geographic location; e.g., a large building or complex that may include county government offices, court, jail, and/or other government offices. Here the challenge is avoid incorrectly overstating broadband capability or understating the need for broadband services. We perform manual assessments to address this.

3. Service provider speeds associated with address data sometimes represent the price plan chosen by the customer and are neither max advertised speed nor typical speed. If we can identify a maximum advertised speed from the provider's Web site, we use that. Otherwise, we keep the maximum speed encountered in the census block and report it as max advertised. If customers' selections in neighboring CBs are vastly different, we use the highest speed in a (subjectively defined) area as max advertised.

4. We receive little or no information on typical speeds that we consider credible. We have left that null in all cases.

5. We found some of the NTIA's warning-level validations to be too restrictive (e.g., maximum downstream speed over ADSL), requiring repeated interactions with multiple providers for verification of submitted data. We are hoping the NTIA corrects these validations prior to the next round.

10cc. Please provide any other information that you think would be useful to NTIA as it assesses your Broadband Mapping Project Applied Communication Sciences (ACS) performed an analysis of the results in the National Broadband Map Quality Assessment provided by the NTIA on the June 2011 data submission from New Jersey. This was done with the objective of identifying areas of discrepancy identified by NTIA between the submission and the 3rd party datasets. Our goal was to improve future comparisons with 3rd party data, both the quality of the comparison and the quality of our submission. ACS analyzed the geodatabase distributed along with the report to identify the providers that have a significant number of mismatches. The intention was to follow up with those providers and help improve the quality of their data submissions. Prior to discussions with the providers, ACS would like to confirm with NTIA our interpretations of the assessment data and also share the findings and conclusions from the analysis. We have requested a teleconference call with NTIA and hope that this call can be arranged promptly.

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

There are four activities in the original planning award, all of which are on track.

Activity 1, "Understanding and Addressing Barriers to the Adoption of Broadband and Information Technology Services," focuses on analyzing the survey data to document household-level barriers to broadband adoption and model the bases of non-adoption. A manuscript titled "Poverty and Digital Exclusion: Statewide Evidence from the Broadband Technology Opportunities Program" was completed and delivered in 2Q2012 and is currently under peer review.

Activity 2, "Addressing Gaps, Developing Programs and Assessing Progress in Improving Broadband Penetration," focuses on both better understanding the reasons that traditionally underserved communities are not adopting the Internet and on identifying programs that have been successful in addressing the extant socio-economic and cultural barriers to bridge the digital divide in specific

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

N/A

11l. Please provide any other information that you think would be useful to NTIA as it assesses your Broadband Mapping Project
Due to NJ OIT's hiring freeze, OIT has hired 2 consultants to provide overall project management for the NJ Broadband project.

Because NJ is unable to draw down federal funds we are reporting a 55% to 45% Federal to Matching %. This # will be corrected in the next PPR filing. We've been working with Brian Gibbons, SBI Officer, on an updated Detailed Project Plan and is currently in review. Upon approval of the plan federal funds will be released.

In regards to Personal Salaries, we've trued up the actual financials resulting in \$174,599 instead of the \$197,588 we reported in Q1 2012. This is our baseline going forward. Also the Fringe Benefits have been trued up to \$62,544 instead of the \$54,947 reported in Q1 2012.

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

Scott Kloss

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

12d. Email Address

scott.kloss@oit.state.nj.us

12b. Signature of Authorized Certifying Official

Submitted Electronically

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

07-20-2012