U.S. DEPARTMENT OF COMMERCE

Performance Progress Report

2. Award Or Grant Number: 36-50-M09010

4. Report Date (MM/DD/YYYY): 01-18-2011

1. Recipient Name: NY State Office of Cyber Security & Critical Infrastructure

6. Designated Entity On Behalf Of: New York State

3. Street Address: 30 South Pearl Street, P-2,

5. City, State, Zip Code: Albany, NY 12207

8. Final Report? ◯ Yes ◉ No

9. Report Frequency: ◉ Quarterly ◯ Semi Annual ◯ Annual ◯ Final

7. Project / Grant Period Start Date: (MM/DD/YYYY)	7a. End Date: (MM/DD/YYYY)	7b. Reporting Period End Date:	9a. If Other, please describe:
10-01-2009	09-30-2014	12-31-2010	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

We have experienced difficulties with a total of eight providers. Five facilities-based providers believed to be serving end users in New York State have been unresponsive to our repeated efforts towards gaining their participation in the program:

- DSL Extreme
- Reliance Globalcom Services, Inc.
- Wave2Wave Communications Inc.
- RidgeviewTel, LLC
- Transbeam, Inc.

Backbone Communications Inc. is a business-only provider with customers almost exclusively in New York City. They decline to participate without citing any specific reason for their decision. Rockefeller Group Technology Solutions also provides broadband solutions to business customers only. Their legal department had confidentiality concerns and advised them not to participate. Telnes Broadband is another business-only provider. They also indicated confidentiality concerns. A review of their website revealed that they cite two to three weeks as being typical installation times, which may put them outside of the provider definition in the NOFA.

The NYS broadband mapping team has communicated with 19 other providers that appear to serve end users within NYS, but have not yet participated. Unlike the eight providers discussed above, these providers have all indicated willingness participate. Two have even begun to submit data since this reporting period ended. Of the 19 companies, 11 are local incumbent or competitive exchange carriers; one is a cable company; one is wireless company; and six are harder to define based on what we know now. Some of those six may be resellers. The team has also communicated with 3 companies that, at this time, provide backbone services only but have indicated that they would like to be "be on the NYS map". The team will continue dialog with all of these companies with the goal of gaining their full participation, or in the case of the backbone companies, determine how their facilities data may be incorporated within the program or the NYS Broadband Map

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

Since September of 2010, the NYS broadband mapping team has been receiving independently collected speed test data through a partnership with the Center for Technology in Government (CTG) at the University at Albany. A web-based "crowd sourcing" application uses the M-Labs speed testing tool and a short survey to collect provider and location information as well as tested upload and download speeds. CTG is using a targeted outreach strategy coupled with social media tools to gather the data. The data is being used to assist with the verification of information received directly from providers and has proved to be most valuable for identifying "type 1" errors which show disparities in the location data . Over 4500 NYS residents have taken the speed test as of the end of this reporting period.

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

In addition to verification plans that have already been implemented (see 10e and 10h), the NYS broadband mapping team plans to expand the verification activities resulting from the public use of the NYS Broadband Map. Currently, via an interactive map and a

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dedicated email account, users are able to report potential inaccuracies in mapped service availability. Thus far, we have received approximately forty inquires from the public. Most have been to point out what they believe to be inaccuracies in the availability cited for their street. Every inquiry is researched and when necessary, the provider(s) involved are contacted to help. Everyone who inquires is given an answer. We are finding this to be a valuable verification activity and are devising an outreach strategy to make more NYS residents aware of the site and its benefits.

Additionally, the NYS broadband mapping website makes all non-confidential program data available via web services and a downloadable geodatabase containing all census block and street level data. ESRI shapefiles depicting eleven thematic map layers are also downloadable (e.g. statewide DSL availability, no broadband availability, etc.). Increased public review and comment on this wealth of broadband mapping program data may lead to verification benefits we have not yet foreseen.

The team is also currently looking in the potential verification uses of the aggregated FCC form 477 data that has been made available to SBDD grantees. This census tract level data may be useful for:
• Identifying providers previously unknown to our team that may be serving end users in NYS
• Identifying errors in provider footprints derived from self-reported availability only
• Determining un-served and underserved areas as defined in the NOFA
• Providing a high level validation of reported max advertized speeds
Lastly, the team plans to use the NTIA supplied Python script for automated validation of attribute data found within our geodatabase deliverable

10g. Have you initiated verification activities? (•) Yes ( ) No

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

For Round 3:
i. We will continue to send providers verification maps depicting their availability and technology at the census block and buffered street segment level. Corrections will be made as noted by the providers.
ii. We will continuing the use of our automated Oracle business rules and those made available in the NTIA provided geodatabase model to verify the accuracy of attribute data including coded values.
iii. We will continue our comparison of commercially available telephone company exchange boundaries to operating footprints supplied by providers. Providers will be contacted for potential corrections.
iv. We will continue to checking for census blocks and street segments coded with provider availability that fall outside of known operating footprints. Providers will be contacted for potential corrections.
v. We will continue spatial checks to make sure middle-mile and backbone interconnection infrastructure points fall within New York State and not within water. Providers will be contact for potential corrections.
vi. We will continue make use of data collected from the New York State Broadband Speed Test website to verify provider availability information (See 10e above).
vii. We will continue to use public comments obtained from NYS Broadband Map to verify availability and technology data reported directly by providers (See 10f above).
viii. We will add automated business rules to check for duplicate records.

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?

5.8

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

The project plan for the approved extension to the program includes additional staff to execute an address point project and to implement several leading practices. NYS has begun work to fill these positions. The NYS hiring process is detailed and time consuming under normal circumstances. A hiring freeze and unprecedented fiscal issues will likely add to the length of time needed to fill the new positions. Existing staff will be used to begin some of the new activities outlined in the project plan. Contracting may be necessary to fill gaps if the hiring process is significantly delayed.

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

15

10n. Staffing Table

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Job Title	FTE %	Date of Hire
Project Director	100	10/26/2009
GIS Technologist 1	100	12/24/2009
GIS Technologist 1	100	05/25/2010
IT Specialist 1 (Business Analyst)	100	02/22/2010
Application Developer - Subcontract	22	08/18/2010
IT Specialist 1 - Infrastructure	39	03/04/2010
IT Specialist 1 - Applications Programming	20	03/04/2010
Project Manager - Subcontract	95	04/05/2010

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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
MVP Consulting Plus, Inc. (Subcontract 1)	GIS Analyst - To provide short-term assistance with GIS data processing and data validation in preparation for the 3/31/2010 initial data delivery and related follow-up activities.	Y	Y	02/17/2010	08/17/2010	49,887	0
Troy Web Technologies (Subcontract 2)	Application Programmer to develop a project tracking application and other web-based project resources.	Y	Y	01/14/2010	01/13/2011	49,500	0
Computer Technology Services(Subcontract 3)	Project Manager responsible for refinement and maintenance of the project plan; development of federal and state status reports; management of subcontracts and tracking of procurements; security reviews, etc.	Y	Y	03/25/2010	09/25/2011	248,625	0
Center for Technology in Government - State University of New York at Albany (Subcontract 4) - See comment in 10cc for reason why there was no RFP.	Speed Test Web Site - Public outreach and sampling services. Deliverables will include provider, technology and speed data independently sampled	N	N	07/01/2010	06/01/2014	183,873	0
Center for Technology in Government - State University of New York at Albany (Subcontract 5) - See comment in 10cc for reason why there was no RFP.	Broadband Adoption Study - This project involves conducting a public survey and developing a report regarding factors affecting the adoption of broadband internet services in New York State.	N	N	11/23/2010	5/31/2011	150,000	0

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Funding

10p. How much Federal funding has been expended as of the end of the last quarter? $1,014,658

10q. How much Remains? $7,908,875

10r. How much matching funds have been expended as of the end of last quarter? $526,039

10s. How much Remains? $1,704,358

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	$3,833,658	$950,052	$4,783,711	$341,735	$163,212	$504,946
Personnel Fringe Benefits	$1,894,770	$381,859	$2,276,628	$184,434	$86,328	$270,762
Travel	$140,818	$7,206	$148,024	$1,321	$0	$1,321
Equipment	$551,242	$184,211	$735,453	$219,713	$28,094	$247,806
Materials / Supplies	$45,015	$1,200	$46,215	$81	$0	$81
Subcontracts Total	$2,058,029	$705,869	$2,763,898	$267,374	$248,406	$515,780
Subcontract #1	$49,887	$0	$49,887	$27,048	$248,406	$275,454
Subcontract #2	$49,500	$0	$49,500	$27,225	$0	$27,225
Subcontract #3	$248,625	$0	$248,625	$109,395	$0	$109,395
Subcontract #4	$183,873	$0	$183,873	$103,706	$0	$103,706
Subcontract #5	$150,000	$0	$150,000	$0	$0	$0
Construction	$0	$0	$0	$0	$0	$0
Other	$400,000	$0	$400,000	$0	$0	$0
Total Direct Costs	$8,923,532	$2,230,397	$11,153,929	$1,014,658	$526,039	$1,540,697
Total Indirect Costs	$0	$0	$0	$0	$0	$0
Total Costs	$8,923,532	$2,230,397	$11,153,929	$1,014,658	$526,039	$1,540,697
% Of Total	80	20	100	66	34	100

Hardware / Software

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

10v. If yes, please list

The following were purchased in previous quarters:

• 10 desktop computers – for use by team staff and for caching data for the NYS Broadband Map = $26,964

• Local storage disks – for storage of program data = $2,032

• 1 tape drive & data tapes – for back-up of program data = $7,792

• Melissa Data data quality software tools – for processing and cleansing program data = $14,800

• Pervasive extract/transform/load software – for processing program data = $43,023

• Oracle database software - 1 enterprise version = $53,031

• Oracle database software - 1 basic version = $1,940

• 1 web application server – for the NYS Broadband Map (interactive website) = $9,558

• 1 database server – for the NYS Broadband Map (interactive website) = $9,558

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• Network switches = $20,866

• 1 network firewall - for the NYS Broadband Map (interactive website) = $13,936

• TOAD database development and administration software – GUI tools for use with Oracle and application development software = $829

• ColdFusion application development software - for application development - purchased with New York State Funds.

• Dreamweaver web design and development software - for application development- purchased with New York State Funds.

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

The software and hardware described in our grant application (and above) has been purchased. However, the NYS Broadband Mapping Project team anticipates and has budgeted for additional expenditures during the life of the program to upgrade, maintain and replace computing equipment; for software maintenance; and for software and data license renewals.

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

10y. If yes, please list

The NYS Broadband Mapping Project has licensed Melissa Data data quality software tools with federal funds. The cost for the Melissa Data product suite was $14,800. The data quality tool utilizes a US Postal Service address database. The NYS Broadband Mapping Project has also licensed data from NAVTEQ, and Tele Atlas as part of the NYS 20% match. The annual license fee for NAVTEQ $353,666. The in-kind match for this product is 50%, or $176,833. The annual license fee for Tele Atlas is $4,950. The in-kind match for this product is 50%, or $ 2,475. Beginning with the third quarter of 2011, the team plans to renew the license for the Tele Atlas telco exchange boundary data with 100% federal money. The broadband team is now the only entity within our office with a need for that data. As a result, we plan to pay for this license with grant money rather than use 50% of its lease value as part of our in-kind match.

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

10aa. If yes, please list

On September 28, 2010, the New York State Office of Cyber Security was awarded supplemental funding by the NTIA to support years 3 through 5 of the program. This expands the scope of the program and therefore adds additional milestones for the following:

1. Data Collection, Integration, and Validation: This activity has been extended for an additional three years.

2. Statewide Map: This activity has also been extended for an additional three years.

3. State Broadband Capacity Building: Additional funding will support the New York State Broadband Program Office. This office has the responsibility of leading broadband policy within New York State as well as identifying and securing federal funds for their stated purpose that “every New Yorker has access to affordable, high-speed broadband.”

4. Technical Assistance: This project is a partnership between the New York State Office of Cyber Security and the New York Library Association to train 1,440 librarians across 755 NYS public libraries. This project will facilitate the formal adoption of state-based curriculum into the compulsory continuing education state certification process to meet the state’s digital literacy standards.

5. Address File Development: The New York State Office of Cyber Security will establish mapping coordinates for approximately four million address points previously not mapped.

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

The NYS Broadband Mapping team has gone to great lengths to create partnerships with providers serving customers within our state. We have held three informational webinars and hosted and attended numerous in-person meetings to garner cooperation and address confidentiality and competition-based concerns. We are working closely with NYS chapters of the telecommunications and cable television industry professional associations. We are attempting to make the NYS Broadband Map not only a resource for the consumer public, but a value-add aspect of the program for the providers as well. We feel strongly that this “partnership” approach is the best way to develop quality datasets and sustain provider participation for the duration of the program. Thus far, we believe this approach is working very well. This belief is supported by comments received from several local and national providers citing our approach as exceptional, uncommon and much appreciated!

We also offer the following administrative clarification: In section 10o. Sub Contracts Table, the columns for "RFP Issued", and "Sub Contract Executed" for the Center Technology in Government - State University of New York at Albany (CTG) were completed as "N",

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because CTG is another New York State government entity, and therefore, no RFP needed to be issued and no contract needed to be executed. CTG and the Office of Cyber Security are cooperating under the auspices of a Memorandum of Understanding.

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

The NYS Broadband Mapping team has gone to great lengths to create partnerships with providers serving customers within our state. We have held three informational webinars and hosted and attended numerous in-person meetings to garner cooperation and address confidentiality and competition-based concerns. We are working closely with NYS chapters of the telecommunications and cable television industry professional associations. We are attempting to make the NYS Broadband Map not only a resource for the consumer public, but a value-add aspect of the program for the providers as well. We feel strongly that this "partnership" approach is the best way to develop quality datasets and sustain provider participation for the duration of the program. Thus far, we believe this approach is working very well. This belief is supported by comments received from several local and national providers citing our approach as exceptional, uncommon and much appreciated!

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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

1. Broadband Stimulus Program Office - Operations Support: The Program Office continues to conducting the day-to-day business of the NYS Broadband Development and Deployment Council.

2. Broadband Adoption Rate Study: The Office of Cyber Security executed a Memorandum of Understanding with the University at Albany's Center for Technology in Government to conduct this study. This work is anticipated to be substantially completed during the first quarter of 2011.

3. Broadband Mapping/GIS activities required under New York State Executive Order #22: No new activities to report this quarter.

4. Analysis of Business Needs for Industrial-level Internet Connectivity: This activity will be substantially accomplished through a business leader summit or a series of meetings with the New York State Business Council, National Federation of Independent Business, New York State Retail Council, and other industry sectors such as the movie and financial services industries to allow New York State to create a "Connectivity Roadmap" for the next ten years. This activity has not yet started.

11b. Please describe any challenge or obstacle that you have encountered and detail the mitigation strategies the project team is employing

No major planning challenges have been encountered.

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

The Project Team is considering incorporating the activities of the Analysis of Business Needs for Industrial-level Internet Connectivity and the Broadband Stimulus Program Office - Operations Support within the Capacity Building Project. The Capacity Building Project will be undertaken through the Broadband Mapping Supplemental Grant. This change will be proposed within New York State's Planning, Timeline and Cost Estimate document, which will be submitted to the NTIA before March 2011.

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

Personal Salaries	$0	$0	$0	$0	$0	$0
Personnel Fringe Benefits	$0	$0	$0	$0	$0	$0
Travel	$0	$0	$0	$0	$0	$0

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11i. Planning Worksheet						
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.

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

No major planning challenges have been encountered.

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

No additional information is necessary in the Broadband Planning category.

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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 Carl Schell	12c. Telephone (area code, number, and extension)
	12d. Email Address carl.schell@cscic.state.ny.us
12b. Signature of Authorized Certifying Official Submitted Electronically	12e. Date Report Submitted (Month, Day, Year) 02-17-2011

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