

U.S. DEPARTMENT OF COMMERCE

Performance Progress Report

2. Award Or Grant Number

50-50-M09004

4. Report Date (MM/DD/YYYY)

04-07-2011

1. Recipient Name

Vermont Center for Geographic Information, Inc.

6. Designated Entity On Behalf Of:

N/A

3. Street Address

58 South Main Street, Suite 2,

8. Final Report?

Yes

No

9. Report Frequency

Quarterly

Semi Annual

Annual

Final

5. City, State, Zip Code

Waterbury, VT 05676

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

10-01-2009

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

09-30-2014

7b. Reporting Period End Date:

03-31-2011

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
43	43	6	0	40	40

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

As of this reporting period there were three providers in the state that is not giving us data. They are GlobalNet, Great Awk Wireless and Great Northern Communications. This quarter, Great Awk Wireless actually did make an attempt to send us data, but it was not in a usable format. We will work with them to improve their submission for the October, 2011 submission.

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

Data Development Methodology: A variety of data source and data collection methods were used to identify the characteristics and geographic extent of broadband service in Vermont. Here is a quick breakdown

- Cable: Mapped to street/street-segment level
- DSL: Mapped as polygons (usually Exchange areas) or address points (list of addresses submitted by provider).
- Fiber Optic: Mapped as address points (list of address submitted by provider)
- Fixed Wireless (WISP): Mapped as polygons (propagation maps prepared by independent contractor using data provided by WISPs)
- Mobile Wireless: Mapped as polygons (data submitted by provider)
- Satellite: Mapped as polygons (data submitted by provider). Providers of satellite-based broadband services claimed that they covered the entire state.

The cable, DSL, fiber optic, and fixed wireless (WISP) layers were "intersected" with Vermont's E911 address point layer to determine broadband availability at the address-level. This information was then intersected with Vermont's 2000 Census Block layer to calculate availability at the block level. The April 1st, 2011 deliverable includes Census block-level data for Census Blocks less than or equal to 2 sq miles, and address level data for Census blocks greater than 2 sq miles.

Mobile wireless and satellite-based broadband polygons were submitted by providers to VCGI. They were formatted to match NTIA specification, but otherwise forwarded as-is.

Vermont's broadband providers submitted data which was used to populate a table listing maximum advertised and typical speeds by Metropolitan Statistical & Rural Service Areas (Cellular Market Areas). This information was used to populate the speed information contained in the submitted broadband, including speed information at the census block level. In numerous cases providers did not submit typical speed information.

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

Future drive testing for mobile wireless availability verification is still under consideration for years 3 and 5 of the contract. The actual coverage of drive testing that will be done is dependent upon the strategy we employ to use the funding in the most meaningful manner to improve data quality and the state's understanding of mobile wireless availability. It may be necessary to perform only one

more drive testing exercise. A final decision will not be made this year.

The initial list of Community Anchor Institutions (CAIs) was derived from existing data sources including the VT Critical Facilities Database and Public Libraries Survey from the Institute of Museum and Library Services. Community Anchor Institutions include schools, libraries, medical facilities, public safety facilities, universities and colleges, and other community facilities such as town halls/offices. An email and hard-copy mailing was sent to every institution in the list. They were asked to fill out an online survey. Follow-up emails and phone calls were made to increase the response rate. The data delivered to the NTIA includes all CAIs, but only includes broadband information for a subset. Additional broadband institutions will be added as their information becomes available.

The Team is also considering purchasing 3rd party data for verification from InfoGroup USA. A sample of their data has been provided by them and it is being evaluated for use by the technical team.

Additionally, field verification and public survey methods will continue for the duration of the grant as described in our original and supplemental grant proposals.

10g. Have you initiated verification activities? Yes No

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

Our Team has collected data for mobile wireless broadband test data covering ~3400 miles of Federal Aid roads in VT. The drive testing was completed by a contractor in June of 2010. The data from the drive testing was received in September of 2010. An assessment of fixed wireless provider coverage was also done by the same contractor. A final report from the contractor was received on November 30, 2010. A copy of the report was included with the December 2010 Quarterly Report package. The contractor's wireless broadband report summarizes the results of in-state verification for both mobile and fixed wireless. Most importantly, due to the methods used for verification, the resulting data is an assessment of broadband mobile wireless coverage that best matches the user experience.

Each broadband provider that supplies broadband service data in some manner to the VT broadband data inventory is given the option to view a final version of their data submission as it will be represented in the NTIA delivery. However, very few providers have asked for a copy of the final version of their data submission for review. Some smaller providers have asked for, and received, a hardcopy map or digital map graphic (PDF) of their coverage area. All of the providers that requested to see what was being submitted to NTIA representing their coverage area received either a copy of the data, a hardcopy map or digital map graphic in accordance with their preference.

The VT Broadband Mapping Team used the data from a phone survey conducted by the UVM Center for Rural Studies (CRS) to verify the broadband maps. Respondents were asked to indicate whether they had broadband at their residence, and were asked to provide their address. The addresses were geocoded (mapped to a lat/long coordinate), then used to evaluate the "accuracy" of the broadband coverage data. A summary of the findings will be included as an attachment to this report.

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?

4.19

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
GIS Technician - VCGI	80	12/07/2009
Senior Project Manager	24	

Applied Geographics - position maintained	21	
University of VT, Center for Rural Studies positions maintained	49	
Telecommunications Infrastructure Specialist- Dept. of Public Service	100	10/20/2009
Director of Broadband Information and Coordination -VT Telecommunications Authority	100	10/01/2010
Staff Support - VT Telecommunications Authority	10	
Northwest Regional Planning Commission - Planner and Project Manager	35	

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
Pericle Communications	Propagation Mapping and Drive Testing	Y	Y	01/01/2010	12/31/2011	251,800	
UVM/Center for Rural Studies	Customer Survey and Verification	Y	Y	10/01/2009	09/30/2010	254,445	
VT Dept. of Public Service	Data Collection from Providers and Content Management of BroadbandVT.org	Y	Y	09/15/2009	09/30/2014	486,255	
Applied Geographics Inc.	BroadbandVT.org Website Development	Y	Y	06/15/2010	12/30/2012	89,540	
Marketing Partners Inc.	BroadbandVT.org Marketing Support	Y	Y	08/02/2010	06/30/2011	31,750	
Vermont Telecommunications Authority	Employment of the Director of Broadband Outreach and Coordination	Y	Y	09/28/2010	09/30/2014	525,420	132,975
Northwest Regional Planning Commission	Contract Management and Participation in the Regional Broadband Plan Development	Y	Y	12/01/2010	12/30/2012	250,034	62,509

Funding

10p. How much Federal funding has been expended as of the end of the last quarter? \$808,745 10q. How much Remains? \$2,734,251

10r. How much matching funds have been expended as of the end of last quarter? \$811,326 10s. How much Remains? \$74,424

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	\$342,220	\$0	\$342,220	\$89,215	\$0	\$89,215
Personnel Fringe Benefits	\$252,032	\$0	\$252,032	\$65,737	\$0	\$65,737
Travel	\$8,000	\$0	\$8,000	\$2,524	\$0	\$2,524
Equipment	\$21,000	\$0	\$21,000	\$3,396	\$0	\$3,396
Materials / Supplies	\$55,275	\$0	\$55,275	\$1,565	\$0	\$1,565
Subcontracts Total	\$2,388,704	\$195,484	\$2,584,188	\$523,781	\$121,060	\$644,841
Subcontract #1	\$251,800	\$0	\$251,800	\$248,800	\$0	\$248,800

Mapping Budget Element	Federal Funds Granted	Proposed In-Kind	Total Budget	Federal Funds Expended	Matching Funds Expended	Total Funds Expended
Subcontract #2	\$254,445	\$0	\$254,445	\$45,536	\$0	\$45,536
Subcontract #3	\$486,255	\$0	\$486,255	\$113,553	\$0	\$113,553
Subcontract #4	\$89,540	\$0	\$89,540	\$74,890	\$0	\$74,890
Subcontract #5	\$31,750	\$0	\$31,750	\$31,750	\$0	\$31,750
Construction	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$6,000	\$690,266	\$696,266	\$0	\$690,266	\$690,266
Total Direct Costs	\$3,073,231	\$885,750	\$3,958,981	\$686,218	\$811,326	\$1,497,544
Total Indirect Costs	\$469,765	\$0	\$469,765	\$122,527	\$0	\$122,527
Total Costs	\$3,542,996	\$885,750	\$4,428,746	\$808,745	\$811,326	\$1,620,071
% Of Total	80	20	100	50	50	100

Hardware / Software

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

10v. If yes, please list

1 workstation - Dell T7500 - \$3396.00

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

The Team is still evaluating the need for the software identified in our proposals. Expectations are that we will be making a purchase sometime during year 2 of the project.

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

Funding (section 10t) data does not have enough Subcontract rows for our project. I was instructed to include the additional subcontract information in an Excel spreadsheet and include it as an attachment to the report. The Funding information for Subcontracts 6, 7 and 8 of our project are included in the Excel spreadsheet attachment included with this report and named VT-Q1-2011_PPR_Sec10t_AdditionalSubcontracts.xls

10bb. Please describe any challenge or obstacle that you have encountered and detail the mitigation strategies the project team is employing
Unfortunately, VCGI had the GIS Technician that we hired to work on the project resign his position and move out of state for personal reasons. We are currently advertising for a new employee. In trying to fill the opening we have decided to pursue a Project Manager level hire rather than a Technician. Based upon our previous experience we believe the the technical and work demand of the project warrants hiring someone with greater skills and experience to take a good amount of the work load off of the existing Project Technical Manager. It will also allow the existing Project Technical Manager more time to pursue internal state responsibilities for our organization.

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

The VT Broadband Mapping Team did a soft release of our website in February of 2011. The website is called www.BroadbandVT.org. Since that soft release we have offered the site for comment from the providers, the administration, and other members of the team. The comments have been received and integrated into changes in the data, the static maps are available on the site and in

several aspects of the site. A formal release of the site, with a press conference and participation from the Governor is planned for May.

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

Activities of the Director of Broadband Outreach and Coordination – VT -Q1-2011

1. Statewide BroadbandVT.org website content development and marketing for statewide awareness and institutional use.
2. Ongoing work with eVermont Field Directors to build relationships and share best practices with Regional Technology Planning Teams. Through community connections and development of methodology to support stakeholders' interest and priorities, eVermont efforts have laid the foundation for the development of regional tech plans.
3. Liaison with Governor's Chief of Connect VT to implement statewide release of BroadbandVt.org website and to promote statewide awareness of broadband maps, regional technology plans, online crowd sourcing tools and ongoing data collection.
4. Development of Regional Technology Planning teams
 - a. Held kick off meetings for introduction to goals of regional tech teams and plan format.
 - b. Supported Regional planning commissions in recruitment of tech team stakeholders
 - c. Provided support materials for recruitment effort and plan content
5. Visits to Regional Planning Commissions to introduce vision of Vermont in a Connected Age and discuss the changing faces of economic opportunity, mobile workforce, education, healthcare and the role of libraries in bridging the Digital Divide, workforce development and access in unserved areas
6. Collaboration on data content of broadband maps
7. Meetings with state agencies to understand funding mechanisms and potential for policy recommendations to encourage anchor institution adoption through affordability
8. Re-development of Telecommunications Authority website.

The Director of Broadband Outreach and Coordination has continued to focus her efforts on three areas since January: Government Coordination, Regional Technology Planning and the marketing of web-based communications.

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

n/a

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

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

11i. Planning Worksheet

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?

Additional information about Broadband Planning activities in this quarter are included in the attached Activities Report from the Director of Broadband Outreach and Coordination in MS Word format included as part this reporting package.

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

n/a

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

David F Brotzman

Executive Director

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

802-882-3003

12d. Email Address

davidb@vcgi.org

12b. Signature of Authorized Certifying Official

Submitted Electronically

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

04-29-2011