

Project Summary

CTG is supporting New York State in its efforts to ensure broadband is universally available so that every New Yorker can fully participate in the modern digital economy. One of the first steps toward achieving this goal is to clearly understand the existing broadband landscape. In support of activities by the New York State Broadband Development and Deployment Council, CTG is working with the NYS Office of Cyber Security (OCS) on several initiatives to help the state develop a clear picture of where broadband service gaps exist. The results of these initiatives will be used by the state to help guide policy decisions and direct future resources and investments in broadband infrastructure.

Scope of Work

This project comprises three components, all of which have their own scopes of work

- NYS Broadband Speed Test
- Broadband Adoption Survey
- Community Anchor Institutions

NYS Broadband Speed Test

This project involves several components:

1. **Broadband Speed Test Website** CTG designed and implemented a website to host the broadband speed test at <http://www.nyspeedtest.org/>.
 - a. **Speed test tool and reporting mechanism** In consultation with OCS, CTG identified the M-Lab speed test application, currently being used by the Federal Communications Commission (FCC), as best suited to meet the needs of the project. Factors used in selecting the testing tool included how it collects speed test data, ease of use, the kind of data it can collect, how it stores it, how it makes data available (access to database, routine reporting, etc.), and the robust testing infrastructure used to conduct the speed tests. CTG is asking testers to measure their upload and download speeds, then submit this data and information about their geographic location, their connection type, and their access point.
2. **Data Collection** CTG designed a data collection plan to recruit a sufficient number of residential broadband speed testers to reliably represent the experienced broadband speed within as many broadband service areas as possible. This data is being collected over a five year period (2010-2014) with the understanding that actual speeds are impacted by many factors beyond the technical capabilities of the broadband infrastructure, including the time of day, the number of users online at that time, the capacity of the customer's equipment including the modem, and other factors.
 - a. **Sampling strategy** A sampling strategy will identify the broadband service areas throughout NYS and the number of data points required to successfully verify the data provided in those areas. The sampling strategy is being developed in close cooperation with the OCS team.
 - b. **Recruitment strategy** CTG designed and is implementing a recruitment strategy to enlist a sufficient number of residential test takers to meet the requirements of the sampling strategy. The project needs speed testers from broadband service areas throughout the state. These test takers will be encouraged to visit the broadband speed test website, run the speed test using their home computer system, and submit the results of the speed test via the website. The recruitment strategy makes use of both traditional marketing tools and new social media to reach a broad audience. In addition, CTG and OCS will coordinate their efforts to take full advantage of existing relationships with relevant stakeholder groups in NYS.
3. **Data Management, Preliminary Analyses, and Data Delivery** In coordination with OCS, CTG designed a database for collecting and storing speed test results and other submitted information, is conducting preliminary analysis, and providing data to OCS. CTG will manage the survey data collected and conduct some preliminary analysis to determine how the data collected is meeting the sampling strategy and OCS's

requirements for reporting results to NTIA.

Broadband Adoption Survey

This project was undertaken in response to a request from the New York State Office of Cyber Security (OCS) in support of the activities of the New York State Broadband Development and Deployment Council. OCS is the recipient of a State Broadband Data and Development grant funded by the National Telecommunications Information Administration. The project was designed to develop and apply a method for answering basic questions about the access to and adoption of broadband internet services by New York State households.

The survey design and development are the product of a collaboration among the CTG project team and staff of the Center for Survey Research (CSR) at Stony Brook, SUNY. The CSR conducted the data collection portion of the project. CTG was responsible for designing the data analysis and reporting of project results. The CTG project team collaborated with The Nelson A. Rockefeller Institute of Government (RIG) for assistance with data analysis and presentation materials under the direction and support of the CTG team.

The project research addressed these questions:

- How do the demographics of New York State in terms of income, educational attainment, ethnicity, region, and age affect access to and uptake of broadband internet services by New York State residents?
- What other factors affect the access to and uptake of broadband internet services by New York State residents?
- What are the barriers to adoption of broadband services (e.g. cost, education, language, other cultural factors)?

The project team sought answers to these questions with household surveys planned to occur in two phases. Phase 1 included analysis of data from completed surveys collected up to January 5, 2011, presented in a preliminary report. The second phase covers all data from the 2064 surveys in the preliminary report combined with an additional 980 collected to complete the minimum of 3000 surveys called for in the project plan.

Two sampling levels were used: (1) a sample of 1,002 New York State residents chosen to be representative of the state as a whole (the New York State sample); and (2) an oversample of 2,042 New York State residents in low income counties selected to represent concentrations of underserved populations. A minimum of 1,000 completed surveys was required for the statewide sample, with 1,002 reported here, and 2,042 additional completed surveys for the low income counties with median family incomes below 80 percent of the state average.

The survey instrument was developed by the CRS and CTG, based in part on the recent surveys by the FCC and the Social Sciences Research Council. The instrument includes questions about the respondent's demographic characteristics, location, availability of, access to, types of internet use, purchase decisions for broadband services, reasons for use/non use, and related technical information. All but two items are closed-end, fixed choice in form.

Surveys were conducted by telephone, including land line and cellular. The overall data collection was concluded in as short a time as possible to limit the effects of changes in broadband services or availability.

At the completion of the survey phases, the CSR submitted the survey results (an SPSS file) along with sufficient documentation of the data structure and coding to support comprehensive analysis. Aside from reviewing the data for purposes of error checking and cleaning, the polling organization was not responsible for additional analysis or narrative reporting concerning the results. The CSR was responsible for submitting a written report describing the polling methods and any additional information needed to support subsequent analysis. The Rockefeller Institute provided data analysis with methodological comments and preparation of results in tables or charts.

CTG prepared the final report: Broadband Internet Service Adoption and Use in New York State Households

Community Anchor Institutions

New York State is participating in a national program to map the availability of broadband, or high-speed Internet service. The program is part of a national effort administered by the National Telecommunications and Information Administration (NTIA). As part of this program, the NYS Office of Cyber Security (OCS) is tasked with gathering data about broadband services at Community Anchor Institutions. Community Anchor Institutions (CAIs) are

places where citizens who lack broadband at home can make use of the Internet or where a broadband connection is critical to the services they provide.

The data collected is required as part of OCS's bi-annual data deliveries to the NTIA. Collecting data about the broadband services available at CAIs will help the state create a comprehensive map depicting locations where high speed Internet services are currently available, and where they are not.

Examples of Community Anchor Institutions include:

- Libraries
- Schools and Colleges
- Hospitals
- Municipal Halls
- Police Stations
- Fire Stations

OSC has partnered with CTG to develop new online data collection strategy and forms to expand their outreach efforts for collecting data from community anchor institutions (CAI). This work is an extension of the NYS Broadband Speed Test project currently underway between CTG and OCS to collect broadband speed information from NYS residents.

CTG created a web form for users to answer 6 broad questions. Those questions are:

1. Does your institution have broadband service? (YES or NO)
2. What is the name of your provider? (Reporting form provides a list of common providers to select from)
3. What is your access type? (DSL, Cable, Fiber, etc.)
4. What is your maximum download speed? (Check your provider statement for more information)
5. What is your maximum upload speed? (Check your provider statement for more information)
6. Does your institution provide Wi-Fi? (YES or NO)

Why is this important?

By collecting this information, the state will create a comprehensive map depicting locations where high speed internet services are currently available, and where they are not. Participating in data collection of broadband service information will help to improve, enhance and better target broadband resources throughout the state.

As part of an outreach strategy, OCS has identified key agencies and organizations, as well as key contacts within those agencies/organizations, to participate in completing the CAI reporting form.

- **How are agencies/organizations selected?**Agencies/organizations are identified by OCS as a Community Anchor Institution (CAI), one of more than 10,000 in New York State. CAIs are places where citizens who lack broadband at home can make use of the Internet or a location where a broadband connection is critical to the services the organizations provides to the public.
- **How are Community Anchor Institution contacts identified?**Contacts for CAIs are identified by OCS based on qualifications, within an agency or organization, to answer the six questions on the CAI reporting form. Ideally, many of the questions outlined above may be answered by referring to the broadband provider statement. However, if you believe you are not qualified to fill-out the reporting form, we ask that you provide the name and up-to-date email of the individual you believe can to Megan Sutherland at nyscai@ctg.albany.edu.
- **Why do contacts receive more than one request to complete the CAI reporting form?**A CAI contact may be a contact for one or more CAIs because they have been identified as a key contact for various agencies or organizations (e.g., for an elementary, middle and high school). If that is the case, they will receive multiple email messages regarding the CAI reporting form in which they are asked to complete a CAI reporting form for each CAI they were identified for.

Publications & Results

Reports and Working Papers (1)



Broadband Internet Service Adoption and Use in New York State Households

Tue, 10 May 2011

Broadband access for households has become an important resource for individuals and communities. A high speed connection to the internet provides opportunities for a great many economic, social and cultural benefits. This study was to done to explore the extent to which those opportunities and benefits are currently available to households in New York State. With the support of the NY State Office of Cyber Security, and the New York State Broadband Development and Deployment Council, the Center for Technology in Government partnered with Stony Brook University to conduct the study. We surveyed 3044 New York households to discover the extent of availability and adoption of broadband services and how they are used. We also asked about the social and economic characteristics of the households to explore how those factors affect broadband adoption and use. The results presented here cover 1002 surveys covering the state as a whole and an oversample of 2042 surveys in low income counties.

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The full survey report and access to all the survey data sets can be found at:
broadbandmap.ny.gov/content/a-deeper-look.html#bbAdoptionStudy.

Partners

Government Partners

- New York State Office of Cyber Security (OSC)

Funding Sources

National Telecommunications and Information Administration (NTIA).

Press Releases & News Stories

Press Releases

Residents Invited to Participate in the State's Efforts to Increase High-Speed Internet Access
Thu, 01 Sep 2010

News Stories

NYS wants YOU to test your Internet Speed

WAMC Radio

November 9, 2010

State asks for help in testing Internet speeds

Post Star

November 7, 2010

Sullivan residents can test Internet connection speed

Times Herald-Record

October 25, 2010

NY Residents Invited to Participate in the State's Efforts to Increase High-Speed Internet Access

Vos Iz Neias (Yiddish: What's News)

October 24, 2010

Residents urged to take computer 'speed test'

Daily News Online

October 21, 2010

Residents invited to join broadband effort

The River Reporter Online

October 21, 2010

Sullivan County Residents Invited to Participate in the State's Efforts to Increase High-Speed Internet Access

Catskill Chronicler

October 20, 2010

Washington County residents urged to test Internet access speed

Post Star

October 15, 2010

Westchester Library System Asks Residents to Take the Speed Test

Rivertowns Patch

September 30, 2010

NY Gets Broadband Mapping Grant: \$6.3 Million Is a Lot of Scratch for a Map

Stop the Cap!

September 29, 2010

New Yorkers, Take the Broadband Speed Test Please

Melanie's Mobile Office Tech Blog

September 16, 2010

Related Web Sites

New York State Broadband Mapping Program

National Broadband Plan

National Telecommunications and Information Administration

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