



The Computerworld Honors Program

Honoring those who use Information Technology to benefit society

Final Copy of Case Study

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STATUS:
Laureate

Organization:
National Telecommunications & Information Administration, U.S. Dept. of Commerce

Organization URL:
<http://ntia.doc.gov/>

Project Name:
Broadband Technology Opportunities Program (BTOP) – U.S. Dept. of Commerce

What social/humanitarian issue was the project designed to address? What specific metrics did you use to measure the project's success?

BTOP is the nation's leading project aimed at closing the "digital divide," transforming the lives of Americans by deploying broadband to underserved areas, driving broadband adoption, and improving skills to fully participate in today's digital economy. It was designed to address the fact that one-third of Americans do not have adequate broadband access needed to compete in the 21st-century economy. BTOP is investing \$4 billion in grants to provide and improve high-speed Internet access and develop broadband adoption education and awareness programs for vulnerable populations (e.g., low income, unemployed, aged). Stimulating demand for access to and use of broadband while supporting economic growth and job creation, BTOP's success is measured through the following key performance metrics: New/upgraded network miles indicate the program's reach in increasing network access in rural and underserved areas. To date, BTOP infrastructure projects have deployed 29,200 new and upgraded network miles, nearly tripling the target of 10,000 miles for the year. Connected community anchor institutions (CAIs) such as libraries, hospitals, and community colleges, highlight increased access to the Internet. These connections have a multiplier effect; individuals who use high-speed Internet at anchors are more likely to adopt broadband at home. To date, BTOP recipients have connected 4,163 CAIs. New broadband subscribership is the most direct measure of the growth of broadband adoption. BTOP projects are breaking down barriers to adoption and have added more than 230,755 new broadband subscribers to date. New/upgraded workstations measures service to underserved populations. BTOP projects have installed 24,500 new workstations at public computing centers to improve broadband access in vulnerable communities. These centers provide public access to

technology, resources, and training on topics including online job searching and basic computer and Internet skills.

Please describe the technologies used and how those technologies were deployed in an innovative way. Also, please include any technical or other challenges that were overcome for the successful implementation of the project.

BTOP is deploying numerous technologies to improve broadband access and adoption. Three notable examples include: Fiber optics improve a critical link in broadband networks: "the middle mile," which connects the national network or "Internet backbone" to local communities. The middle mile is essential for broadband service providers to extend their coverage and deliver high-speed Internet access to homes and businesses. To do so, BTOP had to quickly overcome stringent environmental requirements that often derail long-haul fiber projects. BTOP also faced rapid deployment issues, and had to develop creative partnerships with last-mile providers to drive consumer adoption. By the end of the program, BTOP will deploy more than 75,000 miles of new and upgraded fiber cable. BTOP is deploying emerging wireless technologies, such as WiMAX and Long-term Evolution (LTE), in innovative ways. Projects are piloting the use of LTE for public safety mission operations. These LTE networks are demonstrating advanced applications (e.g., video streaming, criminal database access, computer-aided dispatch, and mapping) for public safety projects. BTOP had to work with the FCC to ensure proper waivers were in place to use the correct spectrum and work with industry to ensure technology availability. The program used web portal technology to aggregate and rate digital literacy content (e.g., teaching materials, tutorials, web links, and best practices) into a single, easy-to-use website. Digitalliteracy.gov is the government's single location to share and enhance the tools necessary to learn computer and Internet skills needed in today's work environment. Developing this portal required significant partnership across government agencies, with industry content developers, and non-profit organizations to ensure BTOP was not duplicating efforts and was capitalizing on the best thinking available.

Please list the specific humanitarian benefits the project has yielded so far.

BTOP is laying the foundation for greater economic opportunity for individuals and communities across America. In addition to the immediate benefits of job creation, estimated at more than 4,000 last quarter alone, BTOP provides the access and skills needed to succeed in today's digital economy. BTOP projects are acting as "game changers" in local communities, enabling improvements in distance learning, telemedicine, online job training and other life-enhancing advancements; enhancing public computer centers that offer members of low-income and other vulnerable groups the opportunity to learn job skills, apply for jobs, and access health and education information online; and providing training, equipment, and resources to populations that traditionally underuse broadband. BTOP's beneficiaries include: Education: BTOP is directly connecting or improving connection speeds for an estimated 2,700 K-12 schools, community colleges and universities, bringing distance education to schools in remote areas and helping teachers and parents communicate. Unemployed and underemployed: BTOP projects support job creation, workforce readiness, and economic growth. Workers are deploying broadband infrastructure that will, in turn, support indirect job creation in served communities. Other BTOP projects are bringing resources to assist the unemployed and underemployed in finding jobs. Hospitals and clinics: BTOP projects are directly connecting or improving connection speeds for nearly 150 hospitals and other health care facilities to link health networks, support telemedicine practices, and improve service. Libraries: BTOP infrastructure projects have directly connected approximately 135 libraries to broadband, providing access to enhanced content and training to tens of thousands of users.

Please provide the best example of how the project has benefited a specific individual,

enterprise or organization. Feel free to include personal quotes from individuals who have directly benefited from the work.

Two projects represent hundreds of BTOP successes in serving communities that need broadband the most, providing broadband access and creating a new generation of Americans prepared to reap its benefits. Las Vegas Clark County Urban League (LVUL): In 2009, Clark County's unemployment rate hit 12.3%, three points above the national high (9.3%). Its high school graduation rate reached an all-time low at 63.8%, while 42% more residents applied for food stamps and 30% more applied for social services than in the previous year. Supported by a BTOP grant, LVUL opened 31 public computer centers across the county to help low-income residents develop the digital skills needed in the workforce. These centers provide free access to computers and job training and certification programs to help participants find employment. LVUL sponsored a career fair where 100 attendees, primarily Spanish-speaking, received guidance on interview preparation and spoke with potential employers. Other classes, including digital literacy basics and interview preparation, have helped more than 21,600 people acquire new skills and apply for jobs. MCNC: More than 709,500 households in North Carolina do not have broadband Internet. Supported by two BTOP grants, MCNC is creating a 2,000-mile fiber network to provide higher-quality connections for rural education and community support organizations. The Rowan-Cabarrus Community College has been plagued by limited staff resources and access to doctorate-level experts. With MCNC's new network, the college has been able to install video conferencing equipment, enabling distance learning classes and an increase in virtual staff resources. As of January 2011, all 58 community colleges in the state were connected and running on the new network.