

## ANNUAL PERFORMANCE PROGRESS REPORT FOR SUSTAINABLE BROADBAND ADOPTION

### General Information

<b>1. Federal Agency and Organizational Element to Which Report is Submitted</b> Department of Commerce, National Telecommunications and Information Administration	<b>2. Award Identification Number</b> 78-43-B10569	<b>3. DUNS Number</b> 789438293
<b>4. Recipient Organization</b> Virgin Islands Public Finance Authority 32-33 Kongens Gade, St. Thomas, VI 00802-0430		
<b>5. Current Reporting Period End Date (MM/DD/YYYY)</b> 12-31-2013	<b>6. Is this the last Annual Report of the Award Period?</b> <div style="text-align: center;"> <input type="radio"/> Yes    <input checked="" type="radio"/> No                 </div>	
<b>7. Certification: I certify to the best of my knowledge and belief that this report is correct and complete for performance of activities for the purposes set forth in the award documents.</b>		
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<b>7b. Signature of Certifying Official</b> Submitted Electronically	<b>7e. Date Report Submitted (MM/DD/YYYY):</b> 03-14-2014	

**PROJECT INDICATORS**

**1. Does your Sustainable Broadband Adoption (SBA) project foster a particular broadband technology or technologies? If so, please describe this technology (or technologies) (600 words or less).**

The VIPFA/viNGN Sustainable Broadband Adoption (SBA) Program's goal is to foster the adoption of all broadband technologies by encouraging the use of high speed, broadband communication and information services through training, community outreach and marketing activities which promote the economic and community benefits of using all forms of broadband technology and highlight the benefits to the professional and personal lives of residents. These efforts are deemed critical to economic growth and other community development goals in the U.S. Virgin Islands, given that the U.S. Virgin Islands (U.S.V.I.) is ranked last amongst the 50 states, 5 territories, and the District of Columbia in Internet speeds (at only 59.7% of the top speeds available in the U.S.), as reflected in the National Broadband Map. In technology, the U.S. V.I. is ranked second to last, ahead of only the Northern Mariana Islands. With significant broadband coverage gaps, limited availability and access to broadband technology and services, and very low Internet usage rates, the entire U.S.V.I. is deemed either underserved or unserved.

Current technologies in use in the U.S. Virgin Islands include 1) fixed line technologies, including dial-up, DSL, and hybrid fiber coaxial (HFC) systems, which make use of copper wire for all or part of the connection, and 2) wireless technologies, including microwave, radio and satellite-based systems. Both the fixed line and wireless technologies carry only a limited amount of bandwidth. Though they are faster than dial-up connections through an ordinary phone line (which some local residents still use), they are nowhere near as fast as fiber optic cable, and speeds are reduced as more users are added during periods of high usage. As the need to transmit voice, data and video continues to increase, the Territory's need for reliable high speed bandwidth is increasing. While some existing technologies may be sufficient to meet limited current needs, a 100% fiber optic system is capable of virtually infinite expansion to meet all of the Territory's broadband technology needs for the foreseeable future.

As a result, with regards to the specific broadband technology being implemented to foster sustainable broadband adoption, VIPFA/viNGN is implementing a Broadband Technology Opportunities Program (BTOP)-funded Comprehensive Community Infrastructure (CCI) project to build a 100% fiber optic, high speed, high capacity, "middle mile" network to address the significant impediments to economic and community development in the U.S. Virgin Islands, as described above. VIPFA/viNGN is building a Carrier Grade Ethernet, middle mile network, connecting the four inhabited U.S. Virgin Islands with each other and with the existing sub-sea fiber optic landing station located at Level 3 (formerly Global Crossing) in Frederiksted, St. Croix to link the U.S. Virgin Islands to the world. The network consists of two large-scale fiber rings on St. Thomas and on St. Croix, using underground, aerial and undersea fiber optic cable connections that link Water Island and St. John to St. Thomas and that link St. Thomas to St. Croix. As a part of the build-out, Community Anchor Institutions (CAIs) which include public and private schools, hospitals, libraries, first responders and other government agencies will be connected to the network by reliable fiber optic connections.

VIPFA/viNGN's network is a high speed, open access, 100% fiber optic network which is designed to provide service to all legally-operating Internet Service Providers (ISPs) and other broadband service providers. VIPFA/viNGN's "middle mile" infrastructure enables "last mile" providers – the companies that sell Internet connections and other broadband services to individual end-users, such as homes, businesses, and government users - to connect to the system at a reasonable cost, in order to deliver broadband services to their customers at speeds never before available in the Territory. The infrastructure also allows new companies to enter the market as broadband service providers.

The local ISPs and other broadband service providers will provide a wide range of "last mile" services to the CAIs, businesses and residences, including Internet access, Voice-Over-Internet Protocol (VOIP) services, cellular services, support for cloud-based services, support for a Smart Grid, support for E-911 and other national public safety communication systems, and many others, such as those for tele-medicine which requires reliable, real time, high definition, two-way video teleconferences, which are only possible with a fiber connection. The ISPs and other broadband service providers are able to purchase bandwidth from viNGN in larger quantities and at a lower cost than previously possible. As a result, they will be able to buy more bandwidth and sell it to their customers (including government offices, businesses and residences) at lower prices, further facilitating increased broadband adoption.

Further, VIPFA/viNGN's network will serve as the "central nervous system" for sustaining the implementation of its grant-funded programs. As it relates to VIPFA/viNGN's SBA program activities, broadband technology adoption is largely being fostered by providing digital literacy, train-the-trainer, tele-work, IT, business and other training and engaging in advertising, community outreach and awareness activities, while focusing on encouraging

Refer to the response to Question #4 below for other examples of how the SBA program is fostering the adoption of broadband technologies and services. Further, the VIPFA/viNGN is fostering greater broadband adoption through the CAIs, some of which are BTOP-funded Public Computer Centers (PCCs). More than 300 CAIs are being connected to the network, enabling each of them to receive broadband speeds of up to 1,000 megabits per second or 1 gigabit per second, which will meet their needs now and well into the future.

**2a. Please list all of the broadband equipment and/or supplies you have purchased during the most recent calendar year using BTOP grant**

**funds or other (matching) funds, including any customer premises equipment or end-user devices. If additional space is needed, please attach a list of equipment and/or supplies. Please also describe how the equipment and supplies have been deployed (100 words or less).**

Manufacturer	Item	Unit Cost per Item	Number of Units	Narrative description of how the equipment and supplies were deployed
0	0	0	0	N/A
<b>Totals</b>		0	0	

Add Equipment

Remove Equipment

**2b. To the extent you distribute equipment/supplies to beneficiaries of your project, please describe the equipment/supplies you distribute, the quantities distributed, and the specific populations to whom the equipment/supplies are distributed (600 words or less).**

VIPFA/viNGN does not plan to distribute equipment or supplies through its SBA program; With funding under the BTOP's Public Center Center (PCC) program, equipment and peripherals have been and are being provided to VIPFA-viNGN's PCC locations where SBA-funded training and outreach activities occurred. With funding under the BTOP's Comprehensive Community Infrastructure (CCI) program, fiber optic cable and other equipment is being deployed to more than 300 Community Anchor Institutions, in underground conduits, on utility poles, and in sub-sea cables.

**3. For SBA access and training provided with BTOP grant funds, please provide the information below. Unless otherwise indicated in the instructions, figures should be reported cumulatively from award inception to the end of the most recent calendar year. For each type of training (other than open access), please count only the participants who completed the course.**

Types of Access or Training	Number of People Targeted	Number of People Participating	Total Training Hours Offered
Open Lab Access	0	0	0
Multimedia	0	0	0
Office Skills	0	0	0
ESL	0	0	0
GED	0	0	0
College Preparatory Training	0	0	0
Basic Internet and Computer Use	811	837	25,110
Certified Training Programs	16,690	744	22,320
Other (please specify):	0	0	0
<b>Total</b>	17,501	1,581	47,430

**4. Please describe key economic and social successes of your project during the past year, and why you believe the project is successful thus far (600 words or less).**

Given the challenges outlined in the response to Question #1 above, VIPFA/viNGN's SBA program places a heavy emphasis on much-needed community awareness and marketing campaigns; training; and, job and entrepreneurship skills development and job and contract opportunity sourcing to emphasize the benefits of broadband technologies from a professional, educational and personal perspective for all residents in their everyday lives. The program encourages broadband adoption by relying upon the existing, very limited technologies but emphasizing the benefits that will be experienced when VIPFA/viNGN's broadband network build-out is completed. The VIPFA/viNGN team has invested directly in the Territory's people and communities through a wide range of training for all ages and through its services that are being provided to educate and support the current generations to take advantage of the opportunities that are available now and those to come as a result of funding under the BTOP-funded SBA, PCC and CCI programs, in addition to local government funding, and in-kind support from the National Education Foundation (NEF). The better educated the residents are in how to use broadband technology, the better positioned the U.S. Virgin Islands is to grow and protect its economy against natural and man-made disasters and to improve its communities. These outreach, training and technical assistance activities are critical first steps in helping to bridge the digital divide, and the VIPFA/viNGN team is happy to have piloted these activities.

Selected key economic and social successes are as follow:

- During CY 2013, the VIPFA/viNGN-funded BetterWorld d/b/a Connectspace.vi team conducted critical training and provided technical assistance, including Telework Careers Bootcamps, Social Media Bootcamps, and a Home-Based Career and Telework Job Development Program; 406 U.S. Virgin Islands residents were trained from the program's inception through December 31, 2013;
- For the "Home-Based Career and Telework Job Development Program", the Connectspace.vi team partnered with StaffCentrix, a training and development company that was established in 1999 and specializes in home-based careers, to conduct the training program on St. Croix and St. Thomas. Staffcentrix' web site, Rat Race Rebellion, has been featured in/on The Wall Street Journal, The Dr. Oz Show, ABC News 20/20, The Tyra Show, CNN Newsroom, and many others. Staffcentrix' expertise in the work at home sector is well-recognized, and its other clients include the U.S. Department of State, the U.S. Armed Services, the New York State Department of Education, various colleges, and faith-based organizations. The training featured nationally-recognized expert, Christine Durnst, who also introduced the ConnectSpace.vi team to several organizations which hire virtual workers for customer service and other support. One Hundred (100) U.S Virgin Islands residents attended the training;
- The team continued to encourage residents to take advantage of tele-work opportunities, including creating their own businesses by working remotely. From inception through December 31, 2013, ConnectSpace.vi assisted 31 U.S. Virgin Islands residents to be hired for tele-work and call center jobs. For example, the ConnectSpace.vi team established a pilot beta test program for 11 residents who were trained with ContractWorld.job for tele-work opportunities. During December 2013, 5 of the "Beta Group Members" started working on the ContractWorld.jobs platform as contract tele-workers. With the successful completion of the beta test, the ConnectSpace.vi team has convinced the ContractWorld.jobs team to allow U.S.V.I. residents to compete for the hundreds of tele-work contract/job opportunities that will be made available;
- Residents also continued to test and interview with Support.com for Comcast Technical Support positions. Twenty (20) residents passed the test, and 5 had positions with Support.com;
- During CY 2013, the VIPFA/viNGN team recorded an increase in the number of individuals who registered for and completed the Digital Literacy course and higher-tiered courses, continuing the trend begun since VIPFA/viNGN increased its community outreach, marketing and public relations activities. From the inception of the program through December 31, 2013, a total of 1,307 individuals started the Digital Literacy course, and 744 individuals completed the Digital Literacy course with funding allocated from the SBA program. For the higher-tiered courses, from the inception of the program through December 31, 2013, a total of 538 accounts were activated for new users, and 1,831 licenses were activated with funding allocated from the SBA program;
- viNGN was recognized and awarded the titles of "The Best Afterschool Tutorial for 2013" and "The Best E-Commerce Provider for 2013" by the readers of the Virgin Islands Daily News, the largest circulating newspaper in the U.S.V.I. This annual readers' survey recognizes outstanding achievements amongst businesses and service providers;
- The VIPFA/viNGN team partnered with the U.S.V.I. Small Business Development Center (SBDC) network and offered the "Creating an Online Business" seminars on St. Thomas and on St. Croix;
- The VIPFA/viNGN team partnered with the U.S. Small Business Administration (SBA) and AARP for the Encore Entrepreneurship Seminar for Senior Citizens;
- The VIPFA/viNGN team continued to foster broadband adoption and the use of broadband technologies in its promotion for students and other residents to participate in the "Hour of Code" as a part of Code.org's annual Computer Science Education Week. The "Hour of Code" promotes computer science education and programming in a manner that enables the average citizen to learn basic programming skills for one hour; and,
- The team continues to receive positive feedback from the community regarding its Web Blog, presentations and participation at various events.

**5. Please estimate the level of broadband adoption in the community(ies) and/or area(s) your project serves, explain your methodology for estimating the level of broadband adoption, and explain changes in the broadband adoption level, if any, since the project began.**

<b>5a. Adoption Level (%):</b>	<b>Narrative description of level, methodology, and change from the level at project inception (600 words or less).</b>

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<p>5</p>	<p>A broadband Adoption Level for the U.S.V.I. is currently measured and assessed, based on statistics gathered from the Federal Communications Commission's FCC 477 Report filers. A baseline measure was taken at the start of the SBA program and was reported at 5% or less, primarily based on business and governmental departments and agencies, while the residential Adoption Level was estimated at 0%, based on the fact that the U.S. Virgin Islands is considered a 100% "Under-served area", per BTOP standards, as defined in the applicable Notice of Funds Availability (NOFA). Further, there is no reliable service that is available to residences to provide "two-way data transmission with advertised speeds of at least 768 kilobits per second (kbps) downstream and at least 200 kbps upstream to end users.", based on the definition of "Broadband" included in the NOFA. Internet speeds offered in the U.S.V.I. fall below the "Broadband" speeds, as defined in the NOFA.</p> <p>Particular variables that NTIA has determined as factors that affect a given region's Adoption Level include: Access and Availability, Cost, Perception/Public Opinion, Relevance to the consumer's life and the average consumer's broadband skill set.</p> <p>With the full deployment of VIPFA/viNGN's 100% fiber optic, open access, middle mile network, VIPFA/viNGN will be positioned to provide access to high speed, reliable, and secure capacity to last mile/retail broadband service providers who, in turn, will hopefully offer lower prices to end-users/customers, including individual residences, government facilities, and businesses, in order to encourage broader broadband adoption. VIPFA/viNGN's fiber optic network is being partially funded through the Broadband Technology Opportunities Program (BTOP)-funded Comprehensive Community Infrastructure (CCI) program. The middle mile network is under construction and is nearly completed. In combination with the implementation of its CCI program and its BTOP-funded Public Computer Centers (PCC) program, Adoption Levels are expected to increase with the implementation of the SBA program, given increased access to computer and the Internet; digital literacy courses and other training that are being offered; and, an active community outreach, marketing and public relations campaign.</p> <p>VIPFA/viNGN's Baseline Milestone targets for Quarter 4, CY 2013 were initially established at 21,471 household subscribers and 2,500 total Community Anchor Institutions (CAIs) and/or business/commercial subscribers/customers; however, VIPFA/viNGN is building a middle mile network, and adoption/subscription rates would be at the level of its prospective customers who are the retailers/last mile providers, i.e. those seeking wholesale services, not individual households, CAIs and business/commercial customers. The team has been seeking opportunities to partner with broadband service providers/last mile providers/retailers to obtain subscriber-level data; however, additional financial resources must be identified to support these efforts, as the last mile providers believe that current reporting to the Federal Communications Commission (FCC) and other government agencies is already burdensome and costly. As VIPFA/viNGN's CCI network is being built and agreements are signed with broadband service providers/last mile providers/retailers, viNGN's SBA team will continue to develop methods for coordinating with and creating incentives for the retailers/last mile providers to provide subscriber data from their customers and to confirm the data with their customers.</p> <p>VIPFA/viNGN's SBA program continues to place a heavy emphasis on community outreach, awareness and marketing campaigns and training to emphasize the benefits of broadband technology from a professional, educational and personal perspective for all citizens. The program's impact is being realized by providing digital literacy, tele-work, home-based careers and higher-tiered IT-related and business-related courses and training and engaging in advertising, community outreach and awareness activities, while focusing on encouraging broadband adoption by relying upon existing technology but emphasizing the differences that will be experienced when VIPFA/viNGN's middle mile network build-out is completed and last mile providers and others seeking wholesale services have purchased access to the network.</p> <p>In addition to traditional marketing, advertising, public relations and community outreach activities, blogging and social media (including Facebook and Twitter) are also playing a large part in efforts to drive broadband adoption and usage. The team is driving users to the www.viNGN.com website which has links to viNGN's Facebook page and lists its Twitter name; encourages U.S.V.I. residents to "Like" the viNGN Facebook page; and, introduces and links the viNGN Facebook page to popular Facebook pages, such as those belonging to several of the more popular, local radio disk jockeys. The team "blogs" and posts on its Facebook page to highlight training opportunities, events and VIPFA/viNGN's newsworthy accomplishments and other activities, such as being featured on local radio talk shows.</p>

**6. Please describe the two most common barriers to broadband adoption that you have experienced this year in connection with your project. What steps did you take to address them (600 words or less)?**

High unemployment, low per capita income levels relative to a very high cost of living, the high cost of broadband services which are also inconsistent/unreliable, and the high cost of electricity together form the most common barriers to broadband adoption. Refer to response to Question #1 above for the steps taken by the VIPFA/viNGN team to address the high cost and unreliability of broadband

services offered in the Territory. The broadband service providers in the U.S.V.I. do not offer consistent and reliable high speed broadband services, as defined under the Broadband Technology Opportunities Program (BTOP), to the majority of homes and businesses, which is needed to expand broadband adoption and is a requirement for the expansion of tele-work and other remote work opportunities. As a result, several companies that the ConnectSpace.vi team approached to offer tele-work opportunities in the U.S.V.I. stated that the requirement of reliable high speed Internet service within the U.S.V.I. must be addressed in order for them to open up opportunities and place residents in their tele-work jobs and/or under contract. This issue hampers broadband adoption and tele-work job and entrepreneurship opportunity development in the Territory and the ability of the U.S.V.I to expand its economy through the new "knowledge-based" sector. However, as VIPFA/viNGN's 100% fiber optic, open access, middle mile broadband network is built out and local ISPs and other broadband service providers enter into agreement with viNGN and offer broadband services, these opportunities are expected to open up significantly. VIPFA/viNGN's fiber optic network is being partially funded through the Broadband Technology Opportunities Program (BTOP)-funded Comprehensive Community Infrastructure (CCI) program.

There is also significant demand for digital literacy training and jobs at various professional levels, as a result of low job-related digital literacy skills, low incomes, and unemployment rates that are nearly double the national average at 13% on St. Croix and 12% within the St. Thomas/St. John/Water Island district. The underserved, unemployed and underemployed are unable to afford and do not have easy access to broadband services. Those who are interested in jobs that are available as a result of relationships that the Connectspace.vi team cultivated and that result from economic development efforts of the U.S. Virgin Islands Economic Development Authority (EDA) must have a certain level of skills/training before they are considered qualified for the data, technical support, other IT-related and intensive customer-focused and most administrative jobs and contract opportunities that are available. The lack of appropriate training/skills is a significant barrier to broadband adoption and a significant barrier to employment for the data, technical support, other IT-related and intensive customer-focused and administrative jobs that are available.

Unqualified applicants who were interested in employment were encouraged to first complete the CyberLearning/National Education Foundation (NEF) Digital Literacy course and then Connectspace.vi's assessment process and Boot Camp Tele-work training. Due to the current broadband adoption level in the Territory, many citizens do not possess the basic computer skills or Internet access that would enable them to complete the entirety of the Digital Literacy course and the higher-tiered course offerings. Thus, residents were also encouraged to complete supplemental classes at the PCCs, online through [www.vingn.com](http://www.vingn.com), and/or through other training venues.

Moreover, though the team successfully increased the number of residents who registered for the Digital Literacy course, many residents began to take the courses but were slow to complete the course. Members of the CyberLearning team and members of VIPFA/viNGN's team continued to encourage residents to register for and complete the Digital Literacy course and higher-tiered courses in a timely manner by sending follow-up notices and by conducting presentations, workshops and seminars. The team also continued to engage in community outreach activities and continued to implement its marketing and public relations campaign.

In addition, the VIPFA/viNGN team, the CyberLearning, Inc. and Connectspace.vi teams, local government officials, and members of the local private sector have reported a need for remedial courses in basic computing and Internet usage skills development, general digital literacy and/or keyboarding/typing and other ongoing training. In response, the VIPFA/viNGN program team has identified supplemental remedial courses, which may be offered to the extent that sufficient funding is available. These courses may be offered in conjunction with PCC grant-funded training or may be used to supplement the courses that are offered at the PCCs, all in effort to facilitate training and employment opportunities for as many residents as possible and to encourage broadband adoption.

Further, the VIPFA/viNGN team is working with the U.S.V.I. Department of Labor, the Connectspace.vi team, and the U.S.V.I. Economic Development Authority to determine ways to maintain and attract more broadband-based jobs that can address the critical demand for employment within the Territory and to facilitate entrepreneurial opportunities, while simultaneously sourcing opportunities that will result in the U.S. Virgin Islands having a more digitally literate and competitive workforce at a lower cost. The contract with BetterWorld/ConnectSpace.vi ended on December 31, 2013, given the limited availability of funds to continue to implement these activities. The team remains confident that the activities under the project will have a significant impact by serving as a pilot for providing lessons learned in designing future local government activities when funding is available and/or private sector-led activities.

**7. To the extent that you have made any subcontracts or sub grants, please provide the number of subcontracts or sub grants that have been made to socially and economically disadvantaged small business (SDB) concerns as defined by section 8(a) of the Small Business Act, 15 U.S.C. 647, as modified by NTIA's adoption of an alternative small business size standard for use in BTOP. Please also provide the names of these SDB entities. (150 words or less)**

The entire U.S. Virgin Islands has been classified as a Historically Under-utilized Business Zone (HUBZone), as it is a 100% underserved or un-served, rural, insular territory, consisting of four inhabited islands with less than 110,000 residents in total, low per capita income levels and a higher than the national average unemployment rate. Thus, it is believed that most of the project's local vendors can be classified as SDBs; however, the information to verify the relevant data is not available at the time of the publication of this report. Further, it is believed that some of the project's non-local vendors can be classified as SDBs; however, additional resources will have to be identified and allocated for the data to be collected and verified.

In addition, the VIPFA/viNGN's procurement process allows for open and, at a minimum, limited competition, the latter in those cases when the purchases are defined as "Small Purchases" or in cases of emergency under Federal and local law. Full and open competition solicitations are posted on [www.vingn.com](http://www.vingn.com), the VIPFA's Office of Economic Opportunity (OEO) website, local newspapers,

and local online media, with sufficient time for respondents to provide quotes, bids or proposals, in order to ensure that all potential vendors, including SDBs, are aware of all opportunities.

**8. Please describe any best practices / lessons learned that can be shared with other similar BTOP projects (900 words or less).**

The key best practices and lessons learned by the VIPFA/viINGN team are the following:

- The VIPFA/viINGN team strongly advocates allocating time for all project team members to engage in networking with other BTOP recipients who received funding under similar BTOP projects to share best practices, to share tools and templates, and to learn from each other's experiences, especially in addressing obstacles and challenges that the other may have already overcome. Networking opportunities exist through BTOP-funded webinars, BTOP-hosted conference calls, BTOP-funded conferences and BTOP-supported conferences, and referrals. Participating in BTOP-funded webinars, group discussions, and conferences is helpful to managing the SBA program and better understanding what other grant recipients are accomplishing in the field;
- In order to have significant penetration in broadband adoption levels in communities which are significantly underserved and unserved, significant resources must also be allocated to training and other educational courses; community outreach, marketing, public relations, promotions and awareness activities; Internet-based research support; and, other services to encourage broadband use and adoption;
- In order to have a significant impact on job creation and the development of entrepreneurs for tele-work and other remote work opportunities in an area with extremely low broadband adoption rates and low digital literacy skill levels, significant financial resources and time, well in excess of what is available under the SBA program, are needed; This may include the need for resources to support start-up entrepreneurs in obtaining the basic equipment and supplies needed to begin remote/tele-work activities; and,
- Recipients must adequately budget for the personnel needed to meet the extensive reporting requirements under the program and to most effectively and efficiently implement the project, especially in environments with relatively low broadband speeds and reliability and limited local government financial resources, like the U.S. Virgin Islands.