ANNUAL PERFORMANCE PROGRESS REPORT FOR SUSTAINABLE BROADBAND ADOPTION

General Information

1. Federal Agency and Organizational Element to Which Report is Submitted Department of Commerce, National Telecommunications and Information Administration	**2. Award Identification Number** 46-41-B10548	**3. DUNS Number** 115077950

4. Recipient Organization

Communication Service For The Deaf, Inc. 102 N KROHN PL, SIOUX FALLS, SD 571031800

5. Current Reporting Period End Date (MM/DD/YYYY) 12-31-2012	**6. Is this the last Annual Report of the Award Period?** ◯ **Yes** ◉ **No**

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.

7a. Typed or Printed Name and Title of Certifying Official Judy Morgan	**7c. Telephone (area code, number and extension)**
	7d. Email Address JMorgan@c-s-d.org
7b. Signature of Certifying Official Submitted Electronically	**7e. Date Report Submitted (MM/DD/YYYY):** 02-20-2013

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).

As an SBA project, Project Endeavor demonstrated the use of several broadband technology applications to meet its project goal of expanding access to broadband technology to our nations' deaf and hard of hearing (deaf/hh) population. First, the SBA grant allowed Project Endeavor to build a state-of-the-art multimedia call center capable of handling video calls with the same functionality as telephone, e-mail, chat or text contacts. Project Endeavor merged the latest technology for call center communications with video call management to create a "contact center" whereby, for the first time, deaf/hh individuals can make inquiries and receive direct support services in their own language without going through an intermediary service (i.e., interpreter or relay operator). While this new technology is cheaper for both businesses and governmentally funded communication relay programs, it affords the deaf/hh individual with improved communication access and establishes a footprint for a deaf-to-deaf contact center (D2D) as a viable service delivery system. At the same time, the contact center opened new career opportunities in the field of customer support agents, jobs historically available to individuals with no hearing loss. Second, Project Endeavor used broadband technologies to create an awareness campaign targeting individuals who rely primarily upon visual communications. Text and auditory information were replaced by signed video communications and videos with captioning to create a unique web resource and social networking presence for deaf/hh. This effort was in response to the lack of usable educational material available on the web today. Most is unintelligible for individuals that rely upon American Sign Language (ASL) as their means of communication. Third, Project Endeavor introduced Community Anchor Institutions to using broadband-based Public Access Videophones for deaf/hh consumers seeking services. However, it should be noted that the popular tablets and handheld devices dependent upon ubiquitous wireless technology replace this already out-dated technology. Lastly, Project Endeavor provided a broad range of subsidized equipment to deaf/hh individuals across the United States, including laptops, mini notebooks, tablets and handheld devices in an effort to expand and maximize their use of broadband technologies beyond the use of a videophone.

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
Acer	Aspire Notebook	446	418	Subsidized broadband access equipment provided to individual program participants on a cost sharing basis
CapTel	800i	99	12	Subsidized broadband access equipment provided to individual program participants on a cost sharing basis
Apple	iPad2(16)	500	376	Subsidized broadband access equipment provided to individual program participants on a cost sharing basis
Apple	iPad2(32)	600	3,899	Subsidized broadband access equipment provided to individual program participants on a cost sharing basis
Apple	iPad3(32)	600	1,078	Subsidized broadband access equipment provided to individual program participants on a cost sharing basis
Apple	iPAD3(64)	700	253	Subsidized broadband access equipment provided to individual program participants on a cost sharing basis
Apple	iPod Touch	280	189	Subsidized broadband access equipment provided to individual program participants on a cost sharing basis
Samsung	Mini Notebook	250	1	Subsidized broadband access equipment provided to individual program participants on a cost sharing basis
Toshiba	Thrive	400	166	Subsidized broadband access equipment provided to individual program participants on a cost sharing basis
Apple	iPad2(64)	600	2,437	Subsidized broadband access equipment provided to individual program participants on a cost sharing basis
Apple	iPhone 4/4S	200	231	Subsidized broadband access equipment provided to individual program participants on a cost sharing basis
Apple	iPhone 5	200	91	Subsidized broadband access equipment provided to individual program participants on a cost sharing basis
Samsung	Epic	100	44	Subsidized broadband access equipment provided to individual program participants on a cost sharing basis
Samsung	Epic Touch	175	26	Subsidized broadband access equipment provided to individual program participants on a cost sharing basis
HTC	Evo 3D	200	13	Subsidized broadband access equipment provided to individual program participants on a cost sharing basis
Sierra Wireless	Overdrive	50	69	Subsidized broadband access equipment provided to individual program participants on a cost sharing basis

Manufacturer	Item	Unit Cost per Item	Number of Units	Narrative description of how the equipment and supplies were deployed
Motorola	Photon	200	25	Subsidized broadband access equipment provided to individual program participants on a cost sharing basis
Totals		5,600	9,328	

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)**.

As of December 31, 2012, Project Endeavor distributed various pieces of broadband access equipment and broadband subscriptions to 12,242 deaf or hard of hearing individuals in each of the 50 states, District of Columbia and the U.S. Territories. From the list above, the subsidized equipment Project Endeavor provided included laptops, mini notebooks, tablets, and handheld devices to income eligible individuals. Project Endeavor subsidized equipment and broadband subscriptions at approximately 50% of retail cost. In addition, ninety-five (95) individuals, at or below the national poverty level, received Free Broadband subscriptions through Project Endeavor. By far the most popular broadband access device has been the tablet. While delighted with the new equipment, thousands of individuals also needed tutoring and training in ASL on using their new equipment. The rapid deployment of Wi-Fi and high-speed wireless video is dramatically altering how deaf individuals are accessing broadband services. High-speed wireless video allows a single mobile device, such as a tablet, to replace an individual's wired videophone and home computer. This was unanticipated at the beginning of Project Endeavor. Mobilizing the information on the web has tremendous accessibility implications for people with disabilities. For example, a hearing person can ask someone where's the nearest pizza place. A tablet provides a deaf individual this same functionality.

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 <u>cumulatively</u> 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 <u>completed</u> the course.

Types of Access or Training	Number of People Targeted	Number of People Participating	Total Training Hours Offered
Open Lab Access	200,000	212,566	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	0	0	0
Certified Training Programs	0	0	0
Other (please specify):	0	0	0
Total	200,000	212,566	0

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).

Project Endeavor employed 47 individuals with significant hearing loss disabilities since the project began. Most of these jobs, classified as "call center" industry jobs, are in a career area traditionally not open to deaf job seekers. Four (4) Project Endeavor employees moved to other full time job opportunities in various departments within CSD because of the work experience gained through the BTOP grant. Project Endeavor committed approximately $5.5 million in financial assistance to 12,242 income eligible individuals to purchase broadband access equipment or subscription service. Having this access will enhance their social, educational and economic opportunity. The CapTel Initiative provided 205 low income hard of hearing seniors with a caption phone or a caption phone with Internet service. The CapTel technology demonstrates how broadband improves the quality of life and counters the undesirable effects of isolation experienced by seniors with a hearing loss. To date, Project Endeavor experienced over 438,000 web contacts, 396,000 e-communications, 314,000 social media contacts, and nearly 213,000 learners. It is difficult to measure the degree of learning that resulted from these contacts, but the number and duration of contacts sustained consistent level of growth over the past 18 months. Since all content targets the deaf/hh population, these numbers indicate Project Endeavor is meeting an educational need within community. In addition, 427 individuals enrolled in the online course, "Your Road Trip – Destination Employment" that launched in April 2012. This course was a special project that used open source learning management systems. The course, developed by a licensed

teacher of the deaf, incorporates multimedia components, interactivity exercises, and quizzes. All content accessed in both English text or in ASL.

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.

5a. Adoption Level (%):	Narrative description of level, methodology, and change from the level at project inception (600 words or less).
60	**When developing Project Endeavor for consideration as an SBA project, our initial estimate of adoption rates for individuals with hearing loss was estimated using the 2010 Broadband Adoption & Use in America Survey by the FCC. This report estimated the adoption rate among people with disabilities was approximately 42%. There was no specific research indicating the adoption rates of sub groups within the disability community, i.e., deaf and hard of hearing. Through Project Endeavor, the data gathered suggests the adoption rate is significantly higher than originally estimated. Preliminary data from customer profiles indicate 92% have Internet in their homes. The project management team believes the adoption rate lies closer to 60%, between the 42% and 92%. This percentage reflects the impact of the federally funded Video Relay Services (VRS) program over the past decade. VRS companies distributed free videophones to deaf/hh customers with the requirement that they subscribe to high-speed Internet services to be able to receive a clear video transmission. Without a subscription, VRS companies would not install the videophone equipment. Consequently, many deaf/hh people needing video communication to function in daily activities opted to subscribe to broadband or high speed Internet services. Through Project Endeavor's awareness and outreach campaign, we learned many individuals subscribing to broadband or high speed Internet were only using the connection to use their videophone rather than maximizing the full functionality of their broadband connection. The bandwidth required for operability of the videophone generally runs in the higher cost range, rather than the $9.95 packages offered by major cable companies. Due to the lack of accessible information and education available, along with expense for high speed Internet each month, the purchase of other equipment or devices to access broadband was thought unimportant for the household. A major impact of Project Endeavor will be moving existing deaf/hh subscribers to full-fledged users of broadband services. The Project Endeavor final report will provide qualitative data garnered from program evaluation data regarding the utilization of broadband services by program participants.**

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)?

The two most common barriers for broadband adoption in the deaf/hh population are affordability and language barriers due to the lack of accessible information about broadband services. 1) Affordability: as stated previously, the federally funded Video Relay Services (VRS) companies distributed free videophones to deaf/hh customers over the past decade with the requirement that they subscribe to high-speed Internet services/broadband. This induced the vast majority of individuals to obtain broadband service in order to make video phone calls. Deaf/hh consumers, like most individuals in other disability groups, have significantly more unemployment and under employment than the general population. As a group, this gives them less disposable income to spend on technology. Project Endeavor used grant funds to subsidized equipment and broadband subscriptions for eligible deaf/hh individuals. In addition to offering affordable equipment and services, Project Endeavor offered payment plans, accepted various modes of payment if a credit card not available, and offered "free" broadband subscriptions to those at the poverty level or below. These strategies were effective in assisting consumers manage their financial resources to be able to participant in the program. 2) Language barriers: Project Endeavor thoughtfully designed the contact center to communicate with deaf/hh individuals by creating a platform that would allow participants to use their preferred mode of communication, whether it is ASL via a videophone, using text, email, chat, IP relay or video relay.

All customer support agents, media and outreach team hired for Project Endeavor possess fluency in ASL. Likewise, the media team carefully produced materials, culturally and linguistically appropriate for deaf/hh, in order to effectively build awareness and provide training on broadband, equipment and digital literacy skills. All content on the website consistently reflects this philosophy. The overarching goal Project Endeavor achieves is giving the deaf/hh community access to the same level of information that the average citizen picks up through mainstream media. Eliminating communication barriers has been paramount to the success of Project Endeavor. There is no end to the need for continuous accessible information and training regarding broadband technology products and services that are evolving so rapidly.

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)
No subcontracts or sub grants have been made.

8. Please describe any best practices / lessons learned that can be shared with other similar BTOP projects (900 words or less).
Best Practices from Project Endeavor:
1) Project Endeavor merged the latest technology for call center communications with video call management to create a "contact center" whereby, for the first time, deaf/hh individuals make inquiries and receive direct support services in their own language without going through an intermediary service (i.e., interpreter or relay operator). While this new technology is cheaper for both businesses and

governmentally funded communication relay programs, it affords the deaf/hh individual with improved communication access and establishes a footprint for a deaf-to-deaf contact center (D2D) as a viable service delivery system.

2) Many individuals with language, cultural or communications challenges are failing to adopt broadband technology because mainstream media does not provide enough accessible information, support or motivation to take the next step. Project Endeavor consistently provided information for deaf/hh in accessible formats to ensure comprehension regarding broadband equipment and digital literacy training. It is interesting that educational materials related to technology and broadband translated into various languages. However, rarely, are materials translated into ASL. Project Endeavor used its resources to develop numerous ASL training resources. One in particular is the self-paced, interactive, online learning tool in ASL for deaf/hh individuals who are interested in entering the workforce or looking to change jobs. The learning tool called, "Your Road Trip – Destination Employment," is web-based utilizing interactive signed videos, games, puzzles, and real life situations to engage participants. These are well-documented successful teaching strategies for visual learners or for English as Second Language (ESL) learners. We believe there is "no one size fits all" in terms of developing digital literacy training; however, training must be adapted to the culture, language and learning style of the target population.

3) Project Endeavor invested a great deal of time in developing survey instruments that are culturally sensitive and linguistically appropriate for deaf individuals. Not a common practice in the field because it is labor intensive. The Informed Consent (IC) forms were developed based upon universal design but provided in multiple, accessible formats: text, voice translated text, video American Sign Language (ASL), and captioned video. All Project Endeavor online surveys begin with this expanded explanation of IC, and after confirming agreement to participate, respondents are directly connected to the survey. We believe these techniques could be adapted and used with other vulnerable groups that have cognitive or communication challenges.

4) Project Endeavor worked closely with NTIA to demonstrate how broadband can improve accessibility for individuals with a hearing loss who want to participate in educational opportunities offered online through webinars or similar formats. Project Endeavor demonstrated the use of Video Remote Interpreting and Communication Access Real-Time Captioning (CART captioning) for NTIA's May 15 Technology-Mediated Accessibility Webinar; then again demonstrated VRI at the SHLB Conference on May 22 in Washington, D.C. Technology is only as good as its users choose to use it. Project Endeavor dreams of the day when government programs, businesses and institutions make an automatic decision to be more inclusive of individuals with hearing loss as well as other disabilities by providing accessible formats. Broadband technologies offer this capability today, to each BTOP grantee.

5)The hearing loss community is not homogeneous; just as there is a continuum of hearing loss, so too is there a continuum of broadband access equipment and services. Project Endeavor is collaborating with numerous community anchor institutions to introduce "remote interpreting service" made possible by the advancements in technology. Similar to a telemedicine consult where the physician is thousands of miles away and is able to provide a diagnosis to a patient, an ASL interpreter thousands of miles away can interpret for a deaf person in a hospital bed, in a courtroom or classroom. The possibilities are endless. Broadband technology is changing the delivery system forever more. Project Endeavor is offering eligible hard of hearing senior citizens subsidized Internet-based captioned telephones. Advancements is technology allow captions to keep pace with regular telephone conversations. While we know, the senior population is the fastest growing demographic in the United States, research now validates that untreated hearing loss contributes to the development of dementia. A tool as simple as a captioned telephone keeps seniors engaged while improving quality of life measurements.