



SHOALWATER BAY INDIAN TRIBE

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April 26,2010

Lawrence Stricking
U.S. Department of Commerce / NTIA
1401 Constitution Avenue, N.W.
Washington, D.C. 20230

Dear Mr. Stricking,

On behalf of the Shoalwater Bay Indian Tribal staff and members I thank you for extending the opportunity for the Tribe to comment on the Broadband Technology Opportunities Program (BTOP) applications that were submitted that included our Tribe as being impacted by the project.

We were rather surprised to find any applications including our Tribe as we were not approached by any of these applicants regarding our participation nor did we approve any applying entity's inclusion of the Tribe in their application.

We sincerely thank the NITA leaders and staff for taking the time to solicit input from the tribes across this nation as the situation we find ourselves with these BTOP applications is not unusual no matter how inappropriate it is.

We often find that we're included as a partner in grant projects or strategic plans when we have had no part in the development. Not only is this disrespectful to our Sovereign Nation, it has proven to be detrimental to the Tribe as we try to move forward in securing funding to meet the needs of our people. It's not unusual to find that we are not able to apply for funding for projects as we discover that an unauthorized grant has been submitted with us as one of the partners and/or entities receiving services under the program. Even more dismaying is when we have been included without our authorization or agreement, we were not notified of the availability of the services or, when we were notified we were told that our needs are not a priority for the grant funds or we are located too far away from the provider to receive the services they contracted and agreed to provide.

As requested I have provide our input for the Winter BTOP Applications you included with your letter.

Applicant	Easygrants ID	Shoalwater Comment
University Corporation for Advanced Internet Development	4589	We do not know this applicant, we did not agree to this partnership and we request that if you consider funding this application you do so without including our Tribe
National Emergency Number Association	6873	We do not know this applicant, we did not agree to this partnership and we request that if you consider funding this application you do so without including our Tribe
County Executives Telecommunications Initiative	7027	We do not know this applicant, we did not agree to this partnership and we request that if you consider funding this application you do so without including our Tribe
Broadband Alliance	6672	We do not know this applicant, we did not agree to this partnership and we request that if you consider funding this application you do so without including our Tribe
TEV Enterprise,s LLC	7701	We do not know this applicant, we did not agree to this partnership and we request that if you consider funding this application you do so without including our Tribe
Duval & Jules, LLC	6095	We do not know this applicant, we did not agree to this partnership and we request that if you consider funding this application you do so without including our Tribe
Aztronix, LLC	6977	We do not know this applicant, we did not agree to this partnership and we request that if you consider funding this application you do so

		without including our Tribe
Native Broadband Satellite, LLC	4468	We do not know this applicant, we did not agree to this partnership and we request that if you consider funding this application you do so without including our Tribe
Socket Mobile, Inc.	5335	We do not know this applicant, we did not agree to this partnership and we request that if you consider funding this application you do so without including our Tribe
Brinksman Consulting & Trading Group	6081	We do not know this applicant, we did not agree to this partnership and we request that if you consider funding this application you do so without including our Tribe
Genoa Services	6911	We do not know this applicant, we did not agree to this partnership and we request that if you consider funding this application you do so without including our Tribe
County Executives Telecommunication Initiative	7108	We do not know this applicant, we did not agree to this partnership and we request that if you consider funding this application you do so without including our Tribe

It is our strongest hope that when you share this letters with your staff, other federal and state agencies and future applicants for this as well as all grant applications that everyone will begin to understand the importance of obtaining tribal approval before ever including a tribe in any application, plan or other effort.

Again, our heartfelt thanks to you, your staff and leaders for this effort.

Sincerely,



Charlene Nelson
Tribal Chairwoman



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Chairman Charlene Nelson
Shoalwater Bay Tribe of the Shoalwater Bay Indian Reservation
P.O. Box 130
Tokeland, WA 98590-0130

Dear Chairman Nelson,

The U.S. Department of Commerce's National Telecommunications and Information Administration (NTIA) is responsible for implementing the Broadband Technology Opportunities Program (BTOP), which provides grants for deploying broadband infrastructure, enhancing broadband capacity at public computer centers, and promoting sustainable broadband adoption. In so doing, BTOP advances the objectives of the Recovery Act to spur job creation and stimulate long-term economic growth and opportunity.

As NTIA begins a second round of funding, we invite states, territories, and tribal government leaders to provide input on those geographic areas that NTIA should give priority in selecting projects for funding. As in the previous round of funding, you may comment upon any applications that propose to serve tribal communities and provide specific information as to why certain applications meet the greatest needs of your area.

In particular, we hope to receive guidance from each tribal government as to whether specific applications align with your priorities and meet specific economic and geographic needs. Please note that you are not required to comment on any applications, or follow any specific format, in order for applications proposing to serve your tribal area to receive funding. It is most helpful to us, however, if you place those applications that best match your priorities into either a "recommend" or a "highly recommend" category. When providing this input, please also provide the Easygrants ID, applicant organization, application type and name of the application(s).

NTIA has asked applicants to identify in their application any tribal lands their proposed project would affect. We are using the information provided by applicants to notify tribal governments of projects proposing to serve areas within their jurisdiction. Enclosed you will find summaries of those projects proposing to serve your tribal land.

Due to the limitations inherent to this system and data provided by applicants, we cannot guarantee that all applications enclosed necessarily propose to serve parts of your tribal lands, nor can we guarantee that every application that proposes to serve parts of your tribal lands is enclosed today. If you feel we have omitted an application that serves part of your tribal lands, please alert us and provide input on that application if you wish.

Please note that some of the applications proposing to serve your tribe may also propose to serve states in the same geographic area. NTIA has also invited state governors to comment upon applications serving their states. We have informed the states that they need not comment on applications proposing to serve tribal communities. Should they choose to do so, however, we have urged them to consult with the relevant tribal government.

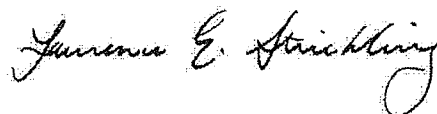
As required by the Recovery Act, NTIA is making the following project information available in a publicly accessible database: the name and location of the applicant organization; the name, phone number, and email address of the primary point of contact; the project title and description; the proposal's executive summary; the total federal grant request and total match amount; and which state(s) the applicant proposes to serve. Enclosed in this letter is summary data, from this public database, on applications identified as potentially serving your tribal lands. Please feel free to use this online database to identify any other applications which may impact your tribal lands to provide input on as well.

We ask that you return any written comments you wish to provide in Microsoft Word or Adobe PDF format to imartinez@ntia.doc.gov **no later than Monday, May 3, 2010**. Alternatively, you may send your comments via physical mail to the address in this letter, ATTN: Ian Martinez. NTIA will make all state and tribal comments publicly available at <http://www.broadbandusa.gov>.

We highly value the input of tribal governments and will take into consideration the comments you provide before making final awards. As in the first funding round, the input of tribes is consultative in nature and, while extremely valuable, constitutes only one of several factors NTIA weighs when evaluating applications.

Thank you again for your help in ensuring that BTOP fulfills the goals of the Recovery Act to expand and enhance broadband capabilities in the United States, create jobs, and help lay a new foundation for future growth. If we can be of further assistance, please contact me or Ian Martinez at (202) 482-3027.

Sincerely,



Lawrence E. Strickling



Winter 2010 BTOP Application Information:

Applicant	UNIVERSITY CORPORATION FOR ADVANCED INTERNET DEVELOPMENT ANN ARBOR, MI
Contact	Nili Tannenbaum (734) 347-7483 ntannen@internet2.edu
Easygrants ID	4589
Project Title	United States Unified Community Anchor Network (U.S. UCAN)
Description	Internet2 and NLR, both non-profit organizations, propose the creation of the United States Unified Community Anchor Network (U.S. UCAN). This national-scale network will construct the middle mile essential to connect all community anchor projects funded by BTOP with each other, and with more than 66,000 other anchors, to ensure a seamless national fabric of high-performance, open networks.
Tribe Impacted	Shoalwater Bay Tribe of the Shoalwater Bay Indian Reservation
States Served	AK, AL, AR, AZ, CA, CO, CT, DC, DE, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, MA, MD, ME, MI, MN, MO, MS, MT, NA, NC, ND, NE, NH, NJ, NM, NV, NY, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VA, VT, WA, WI, WV, WY
Project Type	CCI
Federal Request Amount	\$ 62,540,162

Executive summary:

Comprehensive communities must be connected not just locally, but nationally. The U.S. Unified Community Anchor Network (U.S. UCAN) proposal presents a great opportunity and addresses a critical problem. Without U.S. UCAN, community anchors connected by other BTOP projects (as well as other anchors) will only be able to use advanced broadband applications locally and not nationwide. Anchors will be unable to use advanced broadband applications with the vast majority of other anchors in the U.S, and will be limited to communications with just nearby anchors. Internet2 and NLR, working with partners in 50 states, propose this national infrastructure project to tie together all anchor networks funded by BTOP, link them to 66,000 anchors already using Internet2's and NLR's networks, and provide a unique and cutting-edge national middle mile 100 gigabit interconnect optimized for community anchor use of advanced broadband applications. U.S. UCAN will benefit more than 100,000 community anchors in all 50 states initially (and eventually all or virtually all anchors), including schools, community colleges, universities, libraries, health institutions, public safety entities, local government, public media and other community centers. It will provide much needed upgrades and extensions to the non-profit networks operated by Internet2 and NLR, which constitute the 'interstate highway' for advanced broadband applications for anchors, and which would be the foundation for U.S. UCAN. U.S. UCAN will ensure that community anchors can connect with each other nationwide, rather than just locally, with respect to advanced broadband applications, including telepresence, distance education, telemedicine and job training. For example, if this project is funded, (i) countless rural hospitals with at-risk newborns or persons needing an immediate diagnosis will not be limited to engaging in advanced applications with just nearby hospitals, but can do so with the nation's top hospitals; (ii) emergency 911 centers will be able to exchange data nationwide; (iii) underprivileged youth can take a course, or learn a life skill, from the best instructors in the nation; and (iv) unemployed citizens can, via video conferencing, interview for jobs, or receive job training, from anywhere in the U.S., rather than just in their local area. While commercial backbones are sufficient for certain Internet uses, as to advanced broadband applications for community anchors, there is a market failure. Commercial networks are far too congested to support, and are not optimized for, advanced broadband applications for community anchors like telepresence and telemedicine. Commercial networks also do not provide the necessary transparency required to immediately trouble-shoot application-crippling problems across networks. They also do not generally offer next generation Internet technologies like IPv6 and IP multicast, which are critical to certain applications. Internet2 and NLR's networks currently permit more than 66,000 U.S. community anchors to connect to each other for advanced broadband applications. This BTOP project is critical because these networks urgently need significant upgrades and extensions (i) to support the ever-growing number of users and the increase in the bandwidth needed for continually-evolving advanced applications, and (ii) in light of the BTOP program itself, which will drive even further network traffic to these national networks, as the BTOP winners, who will collectively add tens of thousands of anchors to their networks, either already connect to these national networks (e.g., Merit, MCNC, and I-Light) or almost certainly will want to do so. This proposal will add 11,811 new, diverse 100 Gbps-capable route miles, and upgrades over 10,000 existing network route miles to 100 Gbps. This proposal expands the model used today by Internet2 and NLR for 66,000 anchor institutions, of ensuring national connectivity for them for advanced broadband applications, to 45,000 to 65,000 more anchors



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initially, and eventually all or virtually all anchors (while also ensuring there are sufficient upgrades to continue to adequately serve the original 66,000 anchors). It is precisely this model of Internet2, NLR and the R&E community that the FCC stated in its National Broadband Plan 'should be expanded to other community institutions' and that doing so 'would offer tremendous benefits.' See Supplementary Materials. If funded, these networks will jump start the goal of connecting all 200,000+ U.S. community anchors to a high-performance network. Thus, this project glues the winning BTOP projects together as a whole. Simply put, this project does not compete with other BTOP projects; it completes them. It will also be a building block that attracts more local investment even for non-funded BTOP projects, as such projects will be more valuable if they are connected to non-profit networks that can support national connections for the advanced broadband applications anchors need (Internet2's and NLR's prior, more limited, upgrades motivated tremendous investment by others in local networks). This project makes BTOP a winner for Americans everywhere, while catalyzing the adoption of transformational broadband applications that can fundamentally improve education, health care, public safety, and job-creating economic innovation. This project compliments other sustainable broadband adoption proposals, as more people will want to use broadband if its benefits are greater. When used by research universities, this project will support the growing demands of data-intensive e-science, thereby helping to uncover new energy sources, reduce cardiovascular disease, and help with cancer research. It can also serve as a test bed for advanced network technologies like dynamic circuit provisioning, which will spur economic growth and the creation of new applications, businesses and jobs. Internet2, NLR, and their over 30 regional and state networking collaborators (RONs) have a strong history of providing advanced networking to anchors. Individuals associated with these organizations played key roles in developing NSFNet in the 1980's, and transforming NSFNet into the commercial Internet in the 1990's. For nearly 15 years, Internet2 and NLR networks have been the solution for RONs connecting to community anchors seeking advanced broadband capabilities. Today, they provide cutting-edge networking for the research community, and have expanded their reach to K12 schools, community colleges, libraries, museums, science centers, performing arts centers, hospitals, and other health clinics. They know the needs of anchors, the technology and applications, and how to ensure sustainable business models. This proposal commits to the open Internet recommendations of BTOP and the FCC and also commits to making these networks completely transparent. U.S. UCAN will have measurement and trouble shooting tools that allow all operational aspects of the network to be published on the web in near real-time. The proposed services include a point-to-point, nationwide optical and routed IP network to last mile providers for community anchors. The minimum peak load network bandwidth capacity is 100,000 Mbps. We expect (i) connections to this infrastructure from regional middle-mile providers in the range of 1,000 to 100,000 Mbps, and (ii) pricing in the range of \$21 per Mbps/month to \$2 per Mbps/month for such connections. The proposed network is Wireline Fiber-optic Cable. To ensure access to next-generation Internet protocols, the infrastructure will be built as both IPv6 and IPv4 native. U.S. UCAN will provide service to the entire U.S. and will reach community anchors through RONs and extensions serving all 50 states. This project acquires 11,811 miles of newly lit fiber. At the outset, it will reach over 100,000 anchors, serving over 35,000,000 Americans (students, doctors, patients, library visitors, public safety officers, etc.). The infrastructure will be capable of serving the remaining U.S. anchors. This project is expected to cost a total of \$96,793,607, of which \$62,540,162 (64.61%) is funded by BTOP and \$34,253,445 (35.39%) is cost matching. This project is expected to create or save 1,052 job years in advanced manufacturing and technical engineering. The named partners include Internet2, NLR (private not for profit), the Northern Tier Networking Consortium (public partners), Indiana University Information Technology Services (IU) (public partner), Ciena, Cisco, Infinera, and Juniper (private for-profit), and other collaborators include over 30 RONs, who will all provide technology, equipment and connections to the anchors. The American Association of Community Colleges, the National Emergency Number Association, and many other groups support this proposal.



Winter 2010 BTOP Application Information:

Applicant	NATIONAL EMERGENCY NUMBER ASSOCIATION ARLINGTON, VA
Contact	Brian Fontes (703) 812-4675 rcranston@nena.org
Easygrants ID	6873
Project Title	Increasing Public Safety Broadband Demand by Enabling Multi-State Next Generation 9-1-1 Capabilities
Description	Through developing and demonstrating the requirements for interoperable, multi-state, standards-based Next Generation 9-1-1 systems, this project will increase broadband use by rapidly accelerating NG9-1-1 capabilities, training and education. The end product will be a replicable model that boosts public safety broadband demand and improves access to emergency services for all Americans.
Tribe Impacted	Shoalwater Bay Tribe of the Shoalwater Bay Indian Reservation
States Served	AL, CT, IL, MN, TX, WA
Project Type	Sustainable Broadband Adoption
Federal Request Amount	\$ 6,831,458

Executive summary:

Achieving integrated and interoperable emergency response systems requires that public safety has access to broadband, public safety networks are interoperable and interconnected, and most importantly, the right data and applications can be transmitted over broadband-based networks. As 9-1-1 is the cornerstone of emergency communications, the National Emergency Number Association (NENA) recognizes that a major step forward can occur with the implementation and demonstration of Next Generation 9-1-1 (NG9-1-1) capabilities that interconnect public safety answering points (PSAPs) using broadband services to allow for voice, video and data/text communications. NENA's proposal seeks to implement several national elements called for in NG9-1-1 standards that are common to all NG9-1-1 deployments. This is an important step in improving public safety and increasing public safety broadband demand nationwide. Advancements in modern communications technology have created the need for a more advanced system to access emergency care. While the existing 9-1-1 system has been a success story, it is now being stretched to its limit as technology advances. Many PSAPs rely on outmoded technology and, unlike the rest of the economy, they do not sufficiently take advantage of broadband technologies. To complicate this problem, new wireless and IP-based communications devices are being developed at a rapid rate, offering capabilities such as text and video communications. These technologies are particularly useful for individuals with disabilities. Unfortunately, the current 9-1-1 system was never intended to receive calls and data from these new and emerging technologies, let alone be able to pass this information on to first responders. The results are a public that cannot communicate with 9-1-1 in the way that they are used to communicating with others, and responders without critical information necessary to respond to an emergency event. Obviously, the new NG9-1-1 environment will differ considerably from the current 9-1-1 environment as it requires an overhaul of all aspects of 9-1-1 from governance to the delivery of services. It will establish the foundation for emergency communications services in a wireless mobile society. The public will be able to make voice, text, or video emergency "calls" from any communications device. And, the PSAP will be able to receive data from personal safety devices such as Advanced Automatic Collision Notification systems like OnStar, medical alert systems, and sensors of various types and transmit it to any entity involved in the emergency event. The success of NG9-1-1 relies on a number of common elements that must be developed at the national level, standardized and then replicated across states and regions as they deploy NG9-1-1 systems. This is the focus of NENA's proposal. During NENA's 2-year project, it intends to: develop the architecture and demonstrate a national-level Emergency Services IP Network (ESInet) necessary for a multi-state, interconnected, broadband enabled NG9-1-1 system ("Internetwork"); develop and implement national-level elements called for in NG9-1-1 standards; Develop and demonstrate interoperability enablers (core services) such as an agency locator and identity management and access control service; develop best practices for NG9-1-1 governance; design and disseminate training materials for the new broadband-based environment; and, ensure that the public, government officials, and responders become aware of the capabilities and benefits of NG9-1-1. Conventional approaches to 9-1-1 and emergency communications tend to focus primarily on expanding broadband infrastructure, which addresses only a part of the problem for public safety, and doing so at a local level. Our innovative proposal is focused on a multi-state effort to stimulate robust use of broadband by our nation's 6,183 PSAPs. The focus is on software services to harness broadband infrastructure, not infrastructure alone, and a replicable multi-state effort, not a stand-alone local project. Our project will create a significant reason for 9-1-1 leaders to demand



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and use broadband by enabling substantially improved emergency communications capabilities. These public safety benefits cannot be obtained by focusing only on infrastructure or only on local projects but by taking a broader multi-state approach exemplified in this project. While many states are implementing NG9-1-1, many are holding back, waiting for the technology to mature. This project will remove that barrier and provide the impetus for moving forward. To ensure multi-state compatibility, NENA will be partnering with six states/regions; Alabama, Connecticut, Minnesota, the Counties of Southern Illinois, Texas, and Washington. There are 1,226 PSAPs, 20% of total PSAPs in the US, in our project area, as well as 20,000 first responder organizations, each with demands for use of broadband networks, equipment, and applications. These organizations as well as the populations they serve will be the beneficiaries of NENA's project work. In addition, recognizing the need to create an entity comprised of leading public safety organizations, NENA formed the next Generation Safety Consortium (NGSC) to coordinate the deployments of regional and state ESInets. NGSC is an integral part of the NENA project and will help to ensure public safety support and buy-in for this project. This unique mix of project partners has a wide geographic reach and valuable expertise in public safety communications that will allow for continued work and sustainability beyond this project. NENA and its skilled management team are well prepared to launch the program activities detailed in this grant application as soon as funding is made available. NENA's management partner, L.R. Kimball, has managed numerous projects of comparable size and complexity for federal and state government agencies, including the Department of Transportation and Department of Defense. Further, NENA and Kimball have previous collaborative experience on multi-million dollar, multi-year projects related to next generation, IP-based emergency communications. While NENA is submitting this application, with Kimball as a project management partner, NENA members and supporting state/regional government partners will be instrumental in completing project deliverables and sustaining broadband use long term. Our proposal directly addresses multiple BTOP statutory purposes. It will profoundly improve the use of broadband by public safety entities, and thus increase demand for access to broadband and the applications enabled by broadband, not only by PSAPs, but by the agencies wishing to exchange information with them. Since safety agencies exist in all communities, our demand creation will help support the provision of broadband to unserved areas and improve the quality of broadband in underserved areas. It will provide education, awareness, and training for public safety agencies. Today, there are currently 6,183 PSAPs in the United States with approximately 100,000 9-1-1 call takers. As NG9-1-1 is rolled out, these call taker jobs will change requiring NG9-1-1 training programs so that call takers can upgrade their skills. In addition, training will be required for other public safety personnel who routinely interface with 9-1-1. The NENA initiative will lead a comprehensive training effort with 9-1-1 and public safety leaders in the project area. Through interconnected NG9-1-1 systems, access to 9-1-1 and emergency services for individuals with disabilities will dramatically improve, thus enhancing these capabilities for a traditionally vulnerable population. Finally, this project will stimulate economic growth and job creation. In the short term, new jobs will be needed to support and maintain this advanced technological environment and train personnel on the new NG9-1-1 environment. In the long term, jobs will be created as new products and services utilizing NG9-1-1 systems are developed, introduced, and used. The total cost for this project is \$15,000,000. This cost includes requested BTOP funds of \$6,831,458, and matching funds of \$8,168,542, a nearly 55 percent match from states, multi-county regions, and others who will be working on the project.



Winter 2010 BTOP Application Information:

Applicant	COUNTY EXECUTIVES TELECOMMUNICATIONS INITIATIVE BROOKFIELD, WI
Contact	Michael Griffin (202) 737-0556 mgriffin@countyexecutives.org
Easygrants ID	7027
Project Title	County Executives Telecommunications Network (CETN), formerly County Executives Television Network.
Description	CETN promotes the use of broadband to standardize best practice training and certification around the country by empowering every county leader to provide state of the art training to police, fire, health, public works, NGO's and others. This program will be a tool for workforce improvement and information sharing. It will bridge the gap between urban and rural and will improve skill sets.
Tribe Impacted	Shoalwater Bay Tribe of the Shoalwater Bay Indian Reservation
States Served	AK, AL, AR, AZ, CA, CO, CT, DC, DE, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, MA, MD, ME, MI, MN, MO, MS, MT, NC, ND, NE, NH, NJ, NM, NV, NY, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VA, VT, WA, WI, WV, WY
Project Type	Sustainable Broadband Adoption
Federal Request Amount	\$ 14,954,765

Executive summary:

The County Executives Telecommunications Network project seeks funding to share and develop on-line training courses to meet the growing training needs of county employees. Counties serve virtually every need, vulnerable population and community anchor institutions identified by the Congress and the National Telecommunications Administration (NTIA). This project seeks to make engaging and highly-desired training content available to virtually all counties in the United States. This content will help drive county governments to adopt and use broadband technologies. That adoption will allow counties to save tax dollars, improve workforce skills and better serve their citizens. Just as compelling content led to the development of the Internet, compelling content will improve broadband adoption among county, public safety, health care, education and public works employees. This project seeks to use needed, desired and newly created content to allow county employees around the nation to use broadband technologies to meet their workforce training and education needs. Training is among the most critical needs for those working in county government and those delivering county services. Tight budgets have squeezed the ability of thousands county employees of to gain access to training which will help them better perform their jobs, to maintain their jobs and to advance. The increasing costs of in-person training and the accompanying travel costs limit the ability of counties to fully train their personnel. The use of broadband infrastructure to provide online training will meet the needs of counties, save funding and drive adoption of broadband technology to address this critical need. Accessing content through broadband is cost-effective, eliminates costly travel and time away. It is also efficient and immediately available and can be accessed upon need as well as on a regular basis. This application using compelling content made easily available to counties will drive broader broadband adoption among county governments and introduce new ways to use broadband technology to achieve government efficiency. Counties must drive as much efficiency as possible to allow for the citizen services while retaining their human capital. Past methods of providing instructor-led training and the readiness to first responders must adapt to more recent learning methods used by colleges and university systems, namely online training. The delivery of training content via broadband improves the cost benefit ratio for the existing and ongoing IP infrastructure investments made by counties. This will increase adoption of broadband while building online training into the operational fabric of the county institutions. By making existing training courses available to a broad audience and by using collaborative efforts among counties to develop new content, new economies of scale will be achieved which have not been available before. This application is based on a proven model of introducing on-line training on very affordable favorable terms during the grant period to give government entities an opportunity to experience and understand the cost savings and learning opportunities available. In smaller pilots the subsidized introduction of tele-training was followed by sustainable levels of adoption following the introductory period. This grant is necessary to create the necessary economy of scale to create affordable content that meets the unique public service needs of anchor institutions. The availability of the content will drive counties to employ broadband as the most efficient means to address the training needs of the services they offer to their citizens. The wide range of services that are covered under the content and training services created under this grant meets virtually every purpose of the recovery act. It will be a catalyst for increased adoption and use of broadband connections for county based services from public safety, to health care, education, and workforce development. County Executive Telecommunications Network



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(CETN) is a broadband Internet Protocol (IP) network that will deliver multimedia streaming content to all counties for use in workforce improvement, training and information sharing. CETN is designed to deliver continued professional education and skills based training to local government personnel to include: police, fire, EMS, healthcare, public works and related professions. This training would be scalable and continuous for workforce improvement and to supplement traditional instructor-led training. Our partner, Critical Information Network (CiNet), provides eLearning and workplace training solutions with one of the world's largest libraries of educational multimedia materials delivered through a customizable array of platforms, including a robust Web-based learning management system. CiNet offers continuing education solutions, accredited programs, and tools designed to augment instructor-led content. The functional components of CETN will include a learning portal, creation of multi-media content using proven instructional designs, a learning content delivery platform, centralized learning management system (LMS) and an accreditation platform for the tracking and reporting of professional continued education. CETN will not only provide access to existing multimedia content but will create new content to be delivered through the CETN learning portal. The online learning structure can be replicated across the country in different settings and serve to improve future projects. The project is scalable and accessible to any entity with access to broadband service. By meeting the core need of delivering mandatory training via an online portal, CETN will drive the adoption of broadband.



Winter 2010 BTOP Application Information:

Applicant	BROADBAND ALLIANCE COLLINSVILLE, IL
Contact	Robert Paarlberg (618) 223-6005 rpaarlberg@isresearch.com
Easygrants ID	6672
Project Title	Software Wizard to recommend broadband service based on user needs and budget.
Description	Bi-Lingual Software Wizard to recommend broadband service based on user needs and budget. On-line application will match user requirements with real-time data from state, federal and private sources to recommend and build confidence in subscribers' choice.
Tribe Impacted	Shoalwater Bay Tribe of the Shoalwater Bay Indian Reservation
States Served	AK, AL, AR, AS, AZ, CA, CO, CT, DC, DE, FL, FM, GA, GU, HI, IA, ID, IL, IN, KS, KY, LA, MA, MD, ME, MH, MI, MN, MO, MP, MS, MT, NA, NC, ND, NE, NH, NJ, NM, NV, NY, OH, OK, OR, PA, PR, PW, RI, SC, SD, TN, TX, UT, VA, VI, VT, WA, WI, WV, WY
Project Type	Sustainable Broadband Adoption
Federal Request Amount	\$ 672,260
Executive summary:	<p>The Broadband Initiatives Program and the Broadband Technology Opportunities Program's middle and last mile will allow resources to make considerable strides in rolling out broadband throughout the US. Once that happens, efforts will need to be made to make rural and vulnerable subscribers adept and comfortable with the technology and use it for best results. The speed of adaptation will surely lose momentum if we have to educate new subscribers on DSL, fiber, security, back-haul and other items just to make a choice for their household or business. Our answer is a simple software wizard. This software wizard will walk them through a series of questions designed to determine their broadband requirements. Will they use email? Will they watch videos? How many users in household will be accessing the connection? What time of day will it be used the most? and so on. This information will be used to analyze the available options for that potential subscribers location. Things like speed, fair access policy, shared bandwidth, back-haul speed, security, distance from backbone all will be considered in addition to cost and contract factors to help them select the connectivity that is right for them. This is about building confidence in the decision. While this project has the normal application development stages of design, prototype/storyboard, programming and testing it will involve a significant amount of data collection from public and private sources. To do this mapping of location based data we will be using college students to provide the sourcing and data mapping of broadband alternatives. We have discussed this opportunity with several university Career Development Centers and are optimistic that we will have more than adequate resources available. The audience for this application are the 40% of US households that do not have broadband connectivity (Pew Internet Project - April 2009). This disproportionately represents rural, Hispanic, African-American and aged population. Our solution is innovative because it doesn't just show them the alternatives it takes their preferences and provides them with the best location based solution for their needs. Our solution uses the most sophisticated geo-referenced data analysis tools available in the market. We anticipate directly creating 15-20 student jobs and 5 technology jobs. The indirect impact will be jobs that are created because of the level playing field of no internet disconnect. The principals on this project represent a 25 year CIO, a Chairman, and a VP of Operations of a technology company. We have individually managed projects much larger and more complex than this one. The overall budget for this project is \$672,260</p>



Winter 2010 BTOP Application Information:

Applicant	TEV ENTERPRISES LLC HINSDALE, IL
Contact	Eric Bergquist (630) 687-1852 bergquist.services@comcast.net
Easygrants ID	7701
Project Title	Emergency Alert Broadcasts to PCs
Description	One compelling reason for a commitment to serve public safety entities that have expressed a demand or indicated a need for access or improved access to broadband service is a comprehensive communities project to provide emergency & community messages to support safety, health and welfare. We seek funding to develop and distribute software for broadband-connected PCs to receive broadcast emergenc
Tribe Impacted	Shoalwater Bay Tribe of the Shoalwater Bay Indian Reservation
States Served	AK, AL, AR, AS, AZ, CA, CO, CT, DC, DE, FL, FM, GA, GU, HI, IA, ID, IL, IN, KS, KY, LA, MA, MD, ME, MH, MI, MN, MO, MP, MS, MT, NC, ND, NE, NH, NJ, NM, NV, NY, OH, OK, OR, PA, PR, PW, RI, SC, SD, TN, TX, UT, VA, VI, VT, WA, WI, WV, WY
Project Type	CCI
Federal Request Amount	\$ 1,950,000
Executive summary:	
<p>As natural and man-made threats continue, there is an increasing need to be able to effectively communicate warnings to those potentially affected. When the local emergency siren goes off, does it mean there is a tornado and one should seek shelter in the basement, or is there a flood and one needs to seek higher ground' The e-Global Broadcast System (e-GBS) will provide that effective communication, therefore providing for the safety, health, and welfare of the people within the affected community. With the ubiquity of PCs and set-top boxes, the e-GBS system will broadcast a message via the broadband network. All PCs and set-top boxes with the e-GBS client software installed will be programmed to receive such messages using user-specified settings, sounding an alarm and displaying the message with the appropriate instructions on what to do. e-GBS will also broadcast an 'all clear' message when the danger has passed. This innovative approach provides a differentiable service to ISPs, giving them incentive to deploy the system. The service will not have any 'User Fees' nor require anyone to 'sign up' to receive the messages, only to install the client on their PCs, which will help drive adoption of the system. With an initial focus on the top 10 US ISPs, 66 million broadband users across the entire US would have the potential of receiving this service. The total cost of creating and initially deploying this new eco-system will be \$1.95M. The system has many applications for other organizations such as police, fire, military, local communities and utility companies, just to name a few. The user would have full control over whether to display any category message (except Presidential Alerts, which are required to be displayed by the WARN Act). To insure a commitment to serve public safety entities that have expressed a demand or indicated a need for access or improved access to broadband service is a comprehensive communities project to provide for both personal and family safety. Another is to improve access to and use of broadband services by public safety agencies. We seek funding to distribute software clients for broadband-connected PCs and integrate into set-top boxes to display broadcast emergency alert messages with instructions, along with 'all clear' messages. The software would be downloaded by the user from a website and would work as follows: 1. The software would run as part of a broadband network communications service, and would be able to automatically look up IP address information to derive location information, and thus provide relevant local messages. The geographic details are pulled from a commercially available geolocation database. Due to the transient nature of human beings, geolocation technology can never be 100% accurate in providing the location of an IP address, and the users will be allowed to manually enter in their zip codes. 2. This emergency broadcast service would be provided without charge. The system is without additional charge to ISP customers and users. 3. The software would be configurable by the user to opt out of all messages except presidential alerts. The broadcast of the message would be through a feed from the FEMA WARN gateway and handled by the network provider. The message would be broadcast throughout the ISP networks. This would require the newer multicasting-capable routers. The message would be multicast to all geographically relevant IP addresses connected to that router. The client software would receive the message and only display it if it matched the relevant geographical location. 4. The message would be broadcast to all connected PCs and set-top boxes with the software installed and operating, and be displayed in the relevant geographic location of the emergency. The software does not stop current user activity, but merely displays a message box on the screen, stating the</p>	



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emergency message and instruction as to the proper course of action. The message would produce a warning sound if speakers are connected and working, and display until the user acknowledges the receipt of the message 5. The system would also display an 'all clear' message when the event is no longer a threat to the affected area. While the distribution of the client will begin with the top 10 US ISPs as a download from the website, future deployment will encompass several additional distribution channels. After initial development, we will work with the major OS manufacturers (Microsoft Windows, Apple OS/X and RedHat Linux) to integrate the e-GBS Emergency Alert Client directly into the OS. This client can then also be distributed through current OS 'updating' methods. The creation and initial deployment of this new eco-system will create engineering jobs (architects, designers and developers) along with deployment staff (marketing and client [ISP, OS and set-top box manufacturers] account managers). TEV ENTERPRISES, an emergency alert and e-commerce broadcasting system company, was formed by four experienced ex-Motorola senior technical and business executives, with experience and capabilities as illustrated in the resumes presented in Section 18, Attachments, 'Management Team and Organization Chart.'



Winter 2010 BTOP Application Information:

Applicant	DUVAL & JULES LLC KANSAS CITY, MO
Contact	Fedy Duval (816) 396-8709 fedy707@gmail.com
Easygrants ID	6095
Project Title	NetLifeTV
Description	Giving the rural community acces to broadband broadcast with out using a PC. This will solve their problem with lack of access to cable television.
Tribe Impacted	Shoalwater Bay Tribe of the Shoalwater Bay Indian Reservation
States Served	AK, AL, AR, AS, AZ, CA, CO, CT, DC, DE, FL, FM, GA, GU, HI, IA, ID, IL, IN, KS, KY, LA, MA, MD, ME, MH, MI, MN, MO, MP, MS, MT, NA, NC, ND, NE, NH, NJ, NM, NV, NY, OH, OK, OR, PA, PR, PW, RI, SC, SD, TN, TX, UT, VA, VI, VT, WA, WI, WV, WY
Project Type	Public Computer Center
Federal Request Amount	\$ 6,500,000
Executive summary:	NetLifeTV is located at 1101 Walnut in downtown Kansas City, Missouri right next to the new and vibrant Power and Light District. ' NetLifeTV is staging the way for a revolutionary change for social media websites.' Utilizing the business model and strategies of multi-level marketing, referral representatives will be paid for referring their friends to www.NetLifeNow.com social networking site.' Additionally referral representatives will be able to market advertising for NetLifeTV and sell the products.' Additionally, referral representatives as they move up the hiearcy of advancement will share in the add revenues generated from the NetLifeTV website.



Winter 2010 BTOP Application Information:

Applicant	AZTRONIX, LLC NASHUA, NH
Contact	Michael Russo (603) 397-0960 mike@aztronix.com
Easygrants ID	6977
Project Title	Aztronix BTOP SBA UZAP Global Online Marketplace Project
Description	AZTRONIX LLC is working with the New Hampshire State Library including Community Colleges working as a public private partnership in the spirit building local communities as indicated in the BTOP SBA phase 2 'communities' initiatives. We will provide the UZAP platform and technology to remove barriers for businesses and individuals to increase economic activity and create great jobs.
Tribe Impacted	Shoalwater Bay Tribe of the Shoalwater Bay Indian Reservation
States Served	AK, AL, AR, AS, AZ, CA, CO, CT, DC, DE, FL, FM, GA, GU, HI, IA, ID, IL, IN, KS, KY, LA, MA, MD, ME, MH, MI, MN, MO, MP, MS, MT, NA, NC, ND, NE, NH, NJ, NM, NV, NY, OH, OK, OR, PA, PR, PW, RI, SC, SD, TN, TX, UT, VA, VI, VT, WA, WI, WV, WY
Project Type	Sustainable Broadband Adoption
Federal Request Amount	\$ 2,000,000

Executive summary:

EXECUTIVE SUMMARY (TWO PAGES): WWW.UZAP.COM ' Global Online Marketplace PREPARED February 2010 by: AZTRONIX LLC - UZAP' Global Online Marketplace Harvey Lawner, Co-Founder/Lead Investor/Chairman Email: hlawner@aztronix.com Phone: 603-595-3388 ext 103 Mike Russo, Co-Founder/CEO (SDVOSB) Email: mike@aztronix.com Phone: 603-397-0960 Company Overview: Aztronix LLC, a New Hampshire limited liability corporation and a VA CVE verified SDVOSB (Service Disabled Veteran Owned Small Business) is providing all engineering, software development and technical services for UZAP' (www.uzap.com currently on line and live in 'Beta' mode). UZAP' is a virtual on-line marketplace that connects buyers and sellers via a revolutionary online platform that combines the best search and safety features of auction websites with the precise, localized vertical targeting of interactive classified websites on a global scale. The co-founders both own and control Aztronix LLC and UZAP/TLGI. UZAP' is the world's most focused member-centric global online community for transacting trade in goods and services between both people and businesses. UZAP' has been designed to be a member-centric Ask-Bid-Deal Engine web platform that allows users and members worldwide to trade goods and services within more than forty-five main categories and more than one thousand four hundred subcategories for FREE! UZAP' is socially responsible and features a prominent and comprehensive Donate and Barter/Trade function. If people have an interest in buying, selling, trading, leasing, or donating the UZAP.com 'Ask Bid Deal' Global Trade Platform is the place for people to promote themselves, their services, their companies and websites in the most economical way possible... it's FREE for all sponsored listings. Subject matter experts, or 'market makers' buyers, sellers, traders in any of our extensive list of categories or sub-categories are all welcome to capitalize upon the wide range of opportunities for trade and profit at UZAP'. Why UZAP' and why now' With the global economy in turmoil and all ranges of companies laying off workers in mass - people have to rely upon themselves and become their own profit centers. The global online market demand is therefore poised for dramatic explosive growth between 2009 and 2012 with rapid expansion and availability of high speed internet access via both wired and emerging wireless 3G technologies. The primary goal and focus of UZAP' is to create dramatic 'WEB 2.0/3.0' sustained demand and web income and profits on invested capital for all of its stakeholders. UZAP' will focus on delivering sustained shareholder value in keeping with the most exciting WEB 2.0/3.0 enterprises. An integral part of the UZAP' strategy is to apply safe and secure Information Technology in proprietary ways that have the potential to dramatically change markets and industries. UZAP' will contribute in a positively impactful way to the global society of the 21st century. UZAP' listens to what the market wants and delivers user friendly easy to use solutions with a very compelling value proposition. Our team expects to grow to over 800+/- employees in 4 years and provide additional online market income opportunities for many millions of end users in the USA and internationally. UZAP' by deploying new, innovative, safe and cost effective technologies in a very customer focused business friendly fashion will sustain a solid and very long term competitive business model with long term and sustained broadband utilization and demand. People and businesses need better, faster and more cost effective ways to find and complete great deals at a good profit with trading partners they can trust. UZAP' offers a mobile function that we are expanding to support both text based and the 3G based smart phone browsers and handsets that will enable a global scope of audience to benefit from our tremendous value proposition. We plan to integrate the mobile.uzap.com and www.uzap.mobi sites with our UZAP' .com .net .biz and .org interactive



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Global Trade Platform in a coordinated and comprehensive manner. UZAP' is now live in prototype mode at www.uzap.com generating Google Adwords' revenue. UZAP' is seeking Global Strategic Advertising Business Partners to accelerate the UZAP' roadmap deployment. UZAP's roadmap features exciting new functionality including the UZAP Ad Engine (UAE), UZAP Business Directory Engine (UBDE), UZAP E-Commerce Engine, UZAP What's Hot Now Engine and enhancements to the UZAP Ask Bid Engine monetized via 'Google Adwords'. The UZAP' Proprietary Global Trade Platform Suite of Applications, Infrastructure & Services: UZAP' and the UZAP logo are public domain trademarks and copyrights of TLG Internet, Inc., a New Hampshire Corporation owned by the AZTRONIX Co-Founders as a holding corporation for the UZAP' brand and intellectual property. The UZAP' Global Trade Platform is both user and business friendly. UZAP' Global Trade Platform functionality conveys a number of highly competitive features and benefits. UZAP' allows for customization of member's preferences that anyone can intuitively tailor to their specific needs saving time and earning money. All users may search UZAP' freely - and - by registering ' a simple process requiring NO uniquely identifiable information ' all users may place unlimited sponsored listings for Goods and Services absolutely FREE! Market: UZAP' is dedicated to serving the global internet trade requirements of all individual, institutional, corporate, commercial and industrial internet users worldwide. This includes all wire connected, high-speed broadband, Wireless Access Protocol/WIFI and interactive 3G HTML Smart Cell phone enabled users. The growth in online virtual business use is a bright spot in the current economy. Market facts: ' 2009 Worldwide Wireless mobile phone users over 4.0 billion Users (Source: International Telecommunication Union (ITU). ' 2009 Worldwide Internet Users over 1,173,109,925 (Source: Wikipedia - CIA). ' 2009 Worldwide Broadband Internet Users over 349,980,000 (Source: Wikipedia CIA). ' The global advertising market grew to just over US\$600 billion in 2007 - global ad revenues to grow at a compound annual growth rate (CAGR) of 2.7 percent and reach US\$707 billion in 2012, propelled by growth in the interactive segment. (Source for market growth statistics: The Kelsey Group). ' U.S. interactive classified and vertical share of online advertising will grow from 18 percent in 2007 to 24 percent by 2012. Revenues for interactive classifieds and verticals will grow from US\$3.9 billion to US\$14.7 billion during the same forecast period, representing a 30.5 percent compound annual growth rate (CAGR). (Source for market growth statistics: The Kelsey Group). ' During the forecast period, U.S. online classifieds will grow from US\$3.9 billion to US\$9.1 billion (18.6 percent CAGR) and online verticals (such as home services, home and garden, health care, legal and auto repair) will grow from US\$100 million to US\$5.6 billion (461.4 percent CAGR). (Source for market growth statistics: The Kelsey Group). Our conservative goal is 200 Million registered active users by end of year 4. Global users projected to be in excess of 4 billion by 2012. This market will be served on a free standard services model monetized by both indirect and direct advertising (FREE to Ask - Bid - Deal). UZAP' provides a competitive and safe internet commerce and trading environment for all of our users. OPERATIONS and DISTRIBUTION: Currently we are seeing acceleration in 'creative destruction' with new global technologies eclipsing established models at a daunting pace. The UZAP' Global Trade Platform open source architecture embraces creative destruction and accommodates any new technology with rapid integration providing a comprehensive service model, constantly fresh feature set and extremely compelling value proposition to serve a global scope of audience. Our immediate plan is to Ramp-up and continue development of our safe Global Trade Platform. MANAGEMENT: Our Chairman and AZTRONIX Co-Founder, Mr. Harvey Lawner has over fifteen years of experience in the area of executive search. Mr. Lawner has placed over 300 of the top executive talent for start-up ventures as well as multi-national corporations. The Co-Founder and AZTRONIX CEO, Mike Russo served as a combat information systems hardware and software expert aboard high-speed nuclear fast attack submarines in the US Navy. Our CEO is responsible for developing, communicating and realizing the UZAP' vision. SOURCES & APPLICATIONS OF FUNDS: UZAP' is up and running in live 'Beta' mode and seeks funding in the amount of \$2 Million (\$480,000 Matching Cash and In-Kind contribution already invested, \$2,000,000 BTOP Grant and ramps up to \$1 Billion Plus projected ongoing income over 4 years.



Winter 2010 BTOP Application Information:

Applicant	NATIVE BROADBAND SATELLITE, LLC NEW YORK, NY
Contact	Jonathan Glass (121) 228-6870 jglass@nativebroadband.net
Easygrants ID	4468
Project Title	Native Broadband - Bringing Remote and Tribal Community Institutions Up to Speed
Description	Native Broadband, partnered with rural last mile providers and community anchors, will deliver high quality broadband to thousands of inaccessible and underserved remote locations in the vast Tribal and Native lands of the Western US and Alaska, including schools, colleges, libraries, clinics, public safety, and other anchor institutions lacking broadband access in the modern information age.
Tribes Impacted	Shoalwater Bay Tribe of the Shoalwater Bay Indian Reservation
States Served	AK, AZ, CO, ID, MT, ND, NE, NM, OR, SD, UT, WA
Project Type	CCI
Federal Request Amount	\$150,000,000

Executive summary:

Access to broadband is a critical enabler of participation in modern society. This is especially true for Native and Tribal users in remote areas, who have been left behind in so many areas of modern development. The FCC states that broadband penetration in Tribal areas is less than 10%, compared to a national average of 65%, and FCC Chairman Julius Genachowski recently called broadband penetration in Tribal areas 'a disgrace'. Market forces are not providing Alaskan and Native citizens with the access they need to participate in modern society, obtain health care, or even use basic public services. Native Broadband is led by Native shareholders to provide upgraded, and in some cases the first ever, middle mile broadband to over 300 remote, difficult-to-reach communities in Alaska and several dozen major reservations in the Western US. The project targets community anchors that are central access points to public services, a number of whom are represented in this application. Native Broadband's co-applicant is Rivada Sea Lion (RSL), an RUS ARRA Round 1 last mile winner with the SW Alaska Broadband Rural Expansion (SABRE) project bringing 4G wireless to 45 rural Alaskan communities. RSL's last mile service will use Native Broadband's middle mile service for backhaul, maximizing efficiency and taxpayer benefits through the ARRA. RSL is also applying for a Round 2 grant that will use Native Broadband and will further leverage taxpayer dollars. Providing broadband to Alaska's remote communities presents unique challenges due to climate and topography. It is twice the size of Texas with a population slightly larger than Vermont. With the exception of communities accessible from Anchorage and a few near Fairbanks and the coast, the cost of running fiber or microwave across thousands of miles of mountains and tundra makes terrestrial connectivity nearly impossible. The RUS acknowledged this when they awarded RSL the last mile SABRE project, whose 4G service will be backhauled via satellite. No other backhaul technology is feasible in these regions. The challenges are complicated by an acute shortage of affordable backhaul capacity as providers such as StarBand and AT&T Alascom continue to shrink their footprint in the State. That capacity that is available remains prohibitively expensive. Native Broadband is partnering with last mile providers and community institutions to deploy middle mile broadband in areas where satellite backhaul is the only option. Native Broadband will provide ground hardware as well as purchase dedicated transponder assets on a geostationary satellite, to ensure that the capacity is affordable and available for Native Broadband's stakeholders. We will buy transponder assets from a company placing a satellite at an orbital location ideal for serving Alaska and the Western US. Native Broadband is purchasing a large portion of the satellite's capacity to provide over 8 Gbps of middle mile throughput to our partners and institutions. Without Native Broadband, the new satellite will not be deployed in this location and will not direct its coverage beams to rural Alaskan and Tribal areas, since mainstream satellite companies focus their fixed infrastructure on the heavily populated suburban and exurban areas of the lower 48. Satellite backhaul was chosen for two key reasons: 1. For the remote locations that we serve, no terrestrial options are available. Satellite is the connectivity option of last resort to bring these citizens into the modern age. 2. Satellite middle mile backhaul has advanced considerably compared to even five years ago, providing an all-IP-over-satellite environment designed for latency sensitive applications. These systems can affordably provide voice, video, and high speed data approaching telco-quality service. Opportunity Rural Alaska and Tribal areas of the Western US lag in nearly every development indicator including broadband access. Clear barriers to a market solution exist in these locations. Income levels and demographics do not justify investment, and both Alaska and remote Western US reservations have geographic barriers which massively drive up the costs for terrestrial broadband



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infrastructure. Service Area Description The Native Broadband project will provide low cost middle mile broadband to vast rural and remote unserved areas of Alaska, connecting over 300 communities with 150,000 people, and several dozen Tribal reservations in the Lower-48 with 393,000 people, and enabling last mile providers and community anchors, such as our RUS-winning partner RSL, to provide life-changing access. The service area covers over 570,000 square miles (over 2x the size of Texas) of largely inaccessible, highly remote terrain. Households and Businesses Broadband will be provided via last mile partners and community anchors to 49,000 households and 150,000 citizens in Alaska, and 21,100 businesses. Broadband will be provided via middle mile community infrastructure to 122,000 households and 393,000 citizens in Tribal areas of the Lower-48, and 19,400 businesses. Community Anchor Institutions The project involves 1,850 community institutions, including 490 schools, 390 libraries and 6 community colleges. The project has a focus on anchor institutions as a way to bring the best in modern broadband, including videoconference consultations and distance learning, into Native and rural communities. Proposed services and applications The network supports bandwidth speeds up to 10 Mbps for community institutions and other users, which supports distance learning; telemedicine consultations; videoconferences; streaming video for K-12 education; and technical training to upgrade skills, among others. Reliable bandwidth at key anchor community institutions will support all applications used in served areas of the US. The network will support voice, video, data, and videoconferencing. Nondiscrimination and interconnection obligations Native Broadband will be a provider of full and open broadband connectivity. We are a provider-agnostic, application-agnostic, open data pipe for our stakeholders. We fully commit to all principles contained in the FCC's Internet Policy Statement Type of broadband system Native Broadband will provide coverage of all of rural Alaska and all of the selected Lower-48 Tribal areas, not just high income and natural resource-rich regions. Backhaul will be based on latest best-of-breed open architecture using an IP over satellite backhaul environment optimized with packet-by-packet traffic management for latency sensitive applications. DOCSIS, TDMA and other proven point-to-point and multipoint technologies will be utilized as well as DVBS-2 and LDPC. The system supports improvements and everything above the transport layer can be optimized as technology improves. Qualifications Native Broadband's team has 200 years of combined network and rural broadband design, engineering, management, regulatory, operations and financing experience. Among the team members are people who have started major communications companies, and others who have spent their working lives providing broadband services via satellite to Alaska and other rural areas. Infrastructure cost Native Broadband is providing \$65MM in funds from private sources and is requesting \$150MM in matching grant funding from NTIA. The total cost of the project is \$215MM, and Native Broadband is providing 30%. This total cost includes ground equipment, transponder purchase, and all other supporting facilities and equipment. Expected subscriber projections Native Broadband conservatively estimates that its middle mile service will result in 1,100 community anchor institutions receiving critical broadband services. In addition Native Broadband will enable service directly to 30,000 households and 3,200 businesses. These are conservative projections based on achieving sustainability and higher subscriber numbers are possible. Number of jobs created or saved The project will create 4,530 jobs. On-site installers, technicians, and IT operators will service the infrastructure and manage ongoing operations in each anchor institution for the life of the project. Trainers will assist users in learning to utilize broadband. Indirectly, the asset purchase and infrastructure build will fund design, construction and launch of the satellite and various ground systems which create new jobs. Finally, access will create opportunities for commerce fostered by entrepreneurs and business incubators. Many skilled positions will be enabled by telemedicine, distance learning, and integrated public safety services. In addition, the enhanced broadband penetration that Native Broadband will enable will create an estimated 20,000 jobs.



Winter 2010 BTOP Application Information:

Applicant	SOCKET MOBILE, INC. NEWARK, CA
Contact	Micheal Gifford (510) 933-3000 btop@socketmobile.com
Easygrants ID	5335
Project Title	Mobile Broadband Health Platform
Description	In partnership with the University of California and others, launch a versatile, scalable, and accessible broadband healthcare delivery technology platform to be utilized remotely by healthcare professionals, administrators, insurers, and patients; and which creates high value and permanent broadband adoption, economic growth, and 'shovel ready' U.S. jobs.
Tribe Impacted	Shoalwater Bay Tribe of the Shoalwater Bay Indian Reservation
States Served	AK, AL, AR, AS, AZ, CA, CO, CT, DC, DE, FL, FM, GA, GU, HI, IA, ID, IL, IN, KS, KY, LA, MA, MD, ME, MH, MI, MN, MO, MP, MS, MT, NA, NC, ND, NE, NH, NJ, NM, NV, NY, OH, OK, OR, PA, PR, PW, RI, SC, SD, TN, TX, UT, VA, VI, VT, WA, WI, WV, WY
Project Type	Sustainable Broadband Adoption
Federal Request Amount	\$ 3,858,038

Executive summary:

The Problem: As a general matter, the U.S. lags behind other industrialized nations in the availability and affordability of broadband ('BB') due to the significant lack of high value applications and equipment that deliver compelling affordability, high utility, exceptional ease of use, speed, and true cross-platform functionality. Should the U.S. government foster and develop a next generation family of high-impact applications ' including those for BB enabled healthcare, the demand for BB services will markedly increase across all strata of society, reaching the most remote geographic regions and disenfranchised demographics. Innovative Proposal ' The 'Mobile Broadband Health Platform': Socket Mobile, Inc. ('Socket Mobile') proposes to develop, launch, and maintain the 'Mobile Broadband Health Platform' ('Platform') ' a low-cost, secure, scalable, customizable, and highly effective BB healthcare delivery platform that allows any healthcare provider or supporting administrative agency (insurers, anchor institutions, etc.) to deliver superior remote healthcare services to members of the public '- located anywhere '- and do so in a manner consistent with the standards expected in a non-remote (hospital, clinic) environment. To launch this platform and an associated software development kit (SDK) for developing remote medical applications, Socket Mobile will partner with the University of California - Wireless Internet Information System for Medical Response in Disasters (WIISARD), and potentially the CDC, VA Hospitals, and the U.S. Army Telemedicine and Advanced Technology Research Center (TATRC), to whom Socket Mobile intends to license the SDK on a perpetual and free basis, thereby ensuring that U.S. taxpayers get value for their investment from day one of the project. This Platform will consist of three main components: (1) a Medical PDA mobile computing and BB communications device customized for remote point of care healthcare applications; (2) a HealthScan automatic identification device (e.g., barcode scanner / RFID reader) that attaches to popular third-party smartphones (e.g., Apple iPhone, RIM BlackBerry) and enables remote healthcare providers to comply with industry standards and best practices that leverage automatic identification technology to improve patient safety, ensure patient confidentiality, and increase operational efficiency; and (3) an application and developer communication server that provides third-party healthcare applications for the aforementioned devices coupled with a software development kit that allows third-party developers to easily create mobile healthcare applications that integrate Socket Mobile automatic identification technology with support for leading cloud computing-based personal health data systems (e.g., Microsoft HealthVault, Google Health, Dossia). Currently, doctors and other clinicians have two basic choices in terms of handheld platforms for remote healthcare diagnostic, documentation, and prescription activities. The first is the typical 'smartphone' running a 'thin client' healthcare software application. Such a device can assist with basic remote diagnostic and documentation functions (e.g., charting patients' symptoms during home health check-ups), but do not approach the level of computing, automatic identification (e.g., barcode scanning, RFID) and networking power associated with devices to be found in the non-remote medical environment (the departmental station within a clinic). The second choice available to medical personnel performing remote health services is a purpose-built, handheld medical device that is essentially a portable version of a computer workstation to be found within the non-remote environment. This type of device closely approximates many key functionalities of a non-remote device, but only at considerable cost (perhaps \$10,000 to purchase, with significant maintenance costs). There does not exist a BB-based device and database platform that serves the key middle ground in these two approaches '-a device has the



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affordability and scalability of a smartphone yet the power and functionality of the purpose-built handheld medical device. The Platform is designed to fill this gap, providing a BB-enabled solution where healthcare providers can take Socket Mobile's Medical PDA or popular third-party smartphones enhanced with Socket Mobile HealthScan automatic identification devices, combine them with third-party healthcare applications developed from the Socket Mobile SDK and distributed through the Socket Mobile application and developer communication server, leverage personal health records from a secure 'Cloud Computing' back-end database environment, and enable a telemedicine and healthcare management system that can readily be used by healthcare professionals in the field (anywhere, anytime functionality), with minimal training, and best results (accuracy, security, speed). In doing so, the Platform can bring better medical care to people who cannot travel to traditional venues (hospitals, clinics), lower the need for many of these medical facility visits (again, lowering facility and insurance costs) by performing much of the diagnosis and recordation remotely (on-site of patients' work, home, community center, bedside visits), and providing a tool which healthcare professionals can use to better manage daily medical data processes by not being limited to a particular location relating to a particular data management exercise (recordation, diagnosis, and prescriptions), while still complying with industry standards and best practices for these activities.

Solution Addressing BTOP Purposes & ARRA Goals: The Platform serves BTOP Statutory Purpose populations (unserved and underserved areas, public safety, anchor institutions, and vulnerable populations) due to its enablement of fast, effective, and paradigm shifting telemedicine, public safety communication, and job training activities. As such, the Platform can be a high-impact contributor to the development of local and national BB markets as well as serve several broader national goals set forth in ARRA (i.e., 'to preserve and create jobs and promote economic recovery', 'to assist those most impacted by the recession', 'to provide investments needed to increase economic efficiency by spurring technological advances in science and health.'). Given the call to action by our President to create jobs and revitalize the economy in an accelerated and sustainable fashion, we believe our Platform is well-suited to NTIA BTOP support due to its: (i) credible management team; (ii) transparent organizational structure (NASDAQ listed company) (iii) track-record in delivering innovative technologies in prior markets; (iv) its ability to hire 25 employees ('shovel ready'); (v) focus on BB market enablement and BB related job growth; (vi) induce the creation of 122.4 BB enabled telemedicine jobs (mostly in the data recordation services sector); (vii) induce 742,068 new BB users to adopt and use BB services (e.g. remotely enabled patients); and (viii) focus on serving BTOP priority populations. **Applicant Qualifications:** Socket Mobile will make for an exceptional custodian of taxpayer funds as the team has considerable experience in technology development and has already delivered successfully on similar technology projects. Of note, the executive team of Kevin Mills (CEO), Michael Gifford (Founder / Exec. VP), and David Dunlap (CFO) are well matched to the task of managing a high growth and high impact BB platform and have held leading management roles in public and private companies such as Logitech, Inc., Mountain Network Solutions, and Deloitte and Touche, and have a track record of taking new and innovative ideas and transforming them into market leading technology platforms. Socket Mobile has already facilitated the rollout of diverse healthcare applications by launching several medical mobile devices and partnering with leading software developers and integration experts who specialize in mobile healthcare. Of note, the company has enabled healthcare providers to: 'Expand access to medications to elderly, low-income, and disabled patients as well as families with young.' 'Prevent medication errors and save patients' lives by enabling nurses to automatically verify patient identity and medications directly at bedside with a handheld barcoding and RFID application.' 'Streamline documentation and improve access to patient records for senior care facilities.' 'Improve effectiveness of medical first responders by documenting triage status and managing field care with portable barcode scanners.

Reasonable Program Costs: Socket Mobile envisions the project costing \$5,771,334 to finish, with completion within 18 months. Of this amount, Socket Mobile is requesting that NTIA contribute \$3,858,038 and Socket Mobile providing a 33.15% 'match' in cash and in-kind.



Winter 2010 BTOP Application Information:

Applicant	BRINKSMAN CONSULTING & TRADING GROUP PITTSBURGH, PA
Contact	Keith Brinksman (141) 244-0300 bctgroup@bctgroup.com
Easygrants ID	6081
Project Title	Planning Guideline for Broadband Access Implementation
Description	The objective is to create a planning guideline for the small telco that has no strong technology/business planning organization. With this guide, the owner/manager can develop overall plans for the deployment of Advanced Architectures in the Access Plant area. The USDA will provide the guide to winning bidders for development of projects under the Broadband Infrastructure Applications awards.
Tribe Impacted	Shoalwater Bay Tribe of the Shoalwater Bay Indian Reservation
States Served	AK, AL, AR, AS, AZ, CA, CO, CT, DC, DE, FL, FM, GA, GU, HI, IA, ID, IL, IN, KS, KY, LA, MA, MD, ME, MH, MI, MN, MO, MP, MS, MT, NA, NC, ND, NE, NH, NJ, NM, NV, NY, OH, OK, OR, PA, PR, PW, RI, SC, SD, TN, TX, UT, VA, VI, VT, WA, WI, WV, WY
Project Type	Sustainable Broadband Adoption
Federal Request Amount	\$ 500,000
Executive summary:	<p>Problem: Over half of the rural telcos in the US are not providing fiber lines (2008 survey by National Telecommunications Cooperative Association ' NTCA ' shows only 44% providing FTTH or FTTC.) While some type of high-speed service is available in all zip codes, over 62% of zip codes have no fiber-based service available. (As of June 2008, according to material from the FCC.) These areas without fiber are largely the rural, sparsely populated areas served by small telephone companies. In comments before the FCC, the NECA (National Exchange Carrier Association) reported from their 2003 Access Market Survey that over half of their surveyed companies served over 200 square miles each and that they typically averaged 10 or less subscribers per square mile. More recent data confirms this picture. According to information published in June 2009 by the industry magazine, Broadband Properties, there are 681 providers of Fiber services in the US other than the three RBOCs. However, these 681 providers average only 1653 subscribers each and account for only 25% of the fiber lines served in this country. To summarize the problem, much of rural America is without fiber-based service, in spite of the often-quoted information that all zip codes have high-speed service. When surveyed the rural companies say that the number one reason they are not deploying fiber is cost of deployment. The Recovery Act should provide the funds to greatly alleviate this problem, however actually achieving the fiber development will still face hurdles. One of those hurdles is the need for adequate planning (business and technical) before committing to the details of a fiber project. Making the decision to deploy advanced services via fiber facilities is a very involved undertaking. It requires making many decisions in advance ' both service and business related. There are a number of basic architectures from which to select; each with its own service capability suite; and with its own set of cost characteristics (both first cost and life costs.) These decisions need to be made by the service provider management considering the best alternatives for their customers and for their company. However, they do not have the staff to provide the kind of technical/business planning advice they need. These staffs are only found in the larger telcos, mostly in the RBOCs, and with some vendors. Without proper planning, many missteps can occur, requiring costly and service delaying re-dos, or even complete project abandonment. Solution: The solution proposed by this project is to develop a Planning Guideline for the small telco (or other broadband access provider) that does not have the benefit of a strong technology/business planning organization. It is intended to provide the necessary background so that the owner/manager can make informed choices in developing overall plans for the deployment of Advanced Architectures in the Access Plant area. It is anticipated that this planning tool will be provided by the Agriculture Department to those entities winning proposals for development of projects under the Broadband Infrastructure Applications awards. The strategy is to design and write an access fiber broadband planning guideline designed specifically for use by the small rural telco (or other provider) owner or manager. The guideline will be in workbook fashion that has summary points and decision point identifications at the end of each chapter. The guide will be a self-taught primer for planning fiber deployments. Areas to be included are: ' Description of Various Broadband Architectures ' Traffic Capacity And Service Possibilities Of Each Architecture ' Economics Of Architectures ' Economics Of Changing From One Architecture To Another ' Impact Of Low Density (Rural) On Economics And Operations ' Components Of Each BB Architecture ' Vendors Of Each Component ' Description Of What The "Biggies" Are Doing (Bells) Area to be Served: The area served is rural America. It is estimated that as many as 2,142,000 new subscribers to fiber-based</p>



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broadband can be added. Qualifications The two professionals involved in this project are Keith Brinksman and Clifford Holliday. Both have long backgrounds in telecommunications, planning, engineering, management and consulting. Mr. Holliday will be the principal writer of the Planning Guideline. He has been involved (planning, engineering and operations) in improving access plant deployment since the mid 1970's. He has been involved in virtually every major advance in that area ever since, including supervising some of the foundation work that led to today's deployment of fiber. He writes (and has for ten years) a quarterly newsletter on High-Speed Access. (Published by Information Gatekeepers, Inc.) He has written numerous articles and major reports that have been published in the trade press over the last three decades, on the subject of access plant. Jobs to be Saved or Created Obviously this is an estimate, but from the authors' experience, it takes approximately 15 hours to install and cutover a FTTH line. We are estimating 2,142,000 new lines could be impacted by this proposal, which gives 16,000 years of labor. Thus this proposal could help create (or save) 16,000 jobs for a year. This is in line with another estimate circulating in the trade press of 10,000 jobs associated with the Recovery Act Infrastructure projects. Proposal Cost Total cost of this proposal is \$625,000



Winter 2010 BTOP Application Information:

Applicant	GENOA SERVICES SAN FRANCISCO, CA
Contact	Ed Gallagher (415) 641-8343 edgepr@comcast.net
Easygrants ID	6911
Project Title	Broadband Enabled Remote Guidance Systems For The Visually Impaired ("InSight Platform")
Description	In partnership with the Rotary Club of SF to launch an nationwide BB enabled web platform where home bound (e.g. physically disabled) 'Remote Guides' lend their sight to the blind utilizing a 3G wireless head mount web cam and audio ensemble worn by blind persons with the resulting audio/video streamed to sight enabled Remote Guides based anywhere in the U.S. who then provide assistance as needed.
Tribe Impacted	Shoalwater Bay Tribe of the Shoalwater Bay Indian Reservation
States Served	AK, AL, AR, AS, AZ, CA, CO, CT, DC, DE, FL, FM, GA, GU, HI, IA, ID, IL, IN, KS, KY, LA, MA, MD, ME, MH, MI, MN, MO, MP, MS, MT, NA, NC, ND, NE, NH, NJ, NM, NV, NY, OH, OK, OR, PA, PR, PW, RI, SC, SD, TN, TX, UT, VA, VI, VT, WA, WI, WV, WY
Project Type	Sustainable Broadband Adoption
Federal Request Amount	\$ 2,265,600

Executive summary:

Innovative Proposal ' Provide Remote Guidance Services For The Visually Impaired: Genoa and Rotary intend to launch a nationwide broadband ('BB') enabled remote guidance system ('Genoa InSight Platform') serving the visually impaired (a large BTOP vulnerable population). The program will be available in all communities, including unserved and underserved areas, and encourage BB adoption amongst the blind and visually impaired (a demographic that has yet to take full advantage of the BB revolution) and home bound (e.g. physically disabled) 'remote guides' or 'virtual guides' who can lend their sight to assist the blind and visually impaired (the 'beneficiaries') and who can perform these community services from their own home computers. The platform utilizes a wireless 3G, head mounted webcam and audio array worn by the visually impaired beneficiary, with the resulting live audio+video streamed to a sight enabled virtual guide located anywhere in the U.S. who is able to remotely talk the visually impaired beneficiary through a particular activity (grocery shopping, checking food expiration dates, travel, etc.). In addition to providing the nearly 20 million visually impaired persons in the U.S. with a means of undertaking a variety of everyday tasks, the platform will also serve as the cornerstone for a nationwide, high-caliber virtual guidance call center network that can create long-term, high value employment for many thousands of homebound disabled persons (e.g. wheelchair bound or otherwise physically disabled). Genoa is partnering with the Rotary Club of San Francisco to build a platform that can be effectively rolled-out in communities across the country leveraging upon the 7,840 local Rotary clubs made up of 368,145 Rotary members who can assist with the training of the visually impaired persons wearing the 3G enabled webcam headset as well as train the homebound virtual guides. Together the two entities are prepared to collaborate to deploy this innovative system over a 24 month time period and make these devices available to tens of thousands visually impaired persons and employ a large group of disabled, BB-based, home bound virtual guides. As for technology proficiency, Genoa is currently working with Logitech, the leader of BB enabled webcam, video calling and audio headset solutions and has also received support form Plantronics. Similarly, the InSight platform will leverage the expertise of LiveOps, the leading provider of on-demand contact center software for virtual call center outsourcing with at-home agents for inbound and outbound calls and has considerable experience implementing systems for home bound disabled personnel. Addresses Significant Problem: The U.S. lags far behind other industrialized nations in both the availability and affordability of BB enabled webcam and distributed call center capabilities. This in turn limits much of the value generation potential relating to telemedicine, distance learning, remote job training, and other online activities that are typically enabled through BB webcam technology adoption. As such, the InSight platform will encourage BB users to interact using mobile webcam technologies and facilitate the growth of online functionality (the sight enabled assisting the sight impaired), as well as further additional telemedicine, distance learning, and remote job training activities across BTOP vulnerable population in unserved and underserved communities. Applicant Qualifications: Genoa is the leading innovator in remote guidance systems for the blind and has pioneered the use of off-the-shelf technologies for this purpose. Rotary is the leading community-based volunteer organization with over 1.2 million members worldwide. Together, the two entities are uniquely positioned to deliver on the InSight platform due to the fact that Genoa has the technical web-cam and remote guidance experience



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for the visually impaired and Rotary has the ability to project this BB technology delivery and expertise throughout its many thousands of U.S. volunteers. In addition, the project can expect the support by Logitech International, Plantronics, and LiveOps, each a world leader in its field. Scalability & Sustainability: In terms of user scalability, the platform will demonstrate how a significant number of the 21.3 million home bound disabled persons in the U.S. can work as virtual remote guides for the visually. Specifically, this project estimates that 288 'full time equivalent' home bound workers will be employed in addition to the 18 FTE engineers and support staff to be hired by the technology team (306 jobs total). An additional strength of the InSight platform lies in its ability to draw such virtual guides into the program for relatively short periods of time and at variable intervals (again, making this type of employment ideal for disabled home bound persons). This ability to work on short notice for 'a half hour here, and a half hour there' and do so from home allows employment for persons from all walks of life to partake in 'flex-employment' via their BB connections irrespective of their background, training, or financial status. Further, individual guides can assist the visually impaired located anywhere in the U.S. -' not just those in their immediate community. Given the large number of persons in the U.S. who would work if they could do so in a more manageable, virtual, and remote fashion, the platform has the ability to pull in potentially far more participants than other traditional employment opportunities that require a larger time commitment and physical presence of all the parties. As for the scalability of the visually impaired beneficiaries, the InSight platform will provide its web cam technology to the market for free, allowing manufacturers to produce and supply the blind users at the lowest possible cost (even before Medicaid, Medicare, and insurance reimbursements). Further, Genoa will make the remote guide service available for \$100 a month (again, much less expensive than a home care worker visit to assist the blind person). In terms of total market demand and the ultimate sustainability of the project, it is estimated by the American Foundation for the Blind ('AFB') that there are approximately 20 million Americans who could benefit from the platform. Serving Vulnerable Populations: Among this pool, many beneficiaries would also be members of other BTOP vulnerable populations in that they are aged (6.2 million sr. citizens are visually impaired), low income (5.7 million visually impaired have family incomes of less than \$20,000 per year), or have limited educational experiences (4.5 million visually impaired have less than a high school diploma). Program Cost & Job Creation: As a leading community-based volunteer organization, Rotary is uniquely positioned to deliver on the Genoa promise of BB enabled remote guidance for the blind. As such, we expect to see accelerated rollout of remote guidance system solutions in the U.S. (e.g. both Logitech and LiveOps solutions and as well as compatible non-Logitech/LiveOps systems) and have estimated that an addition 97 jobs will be created as a result (bringing the total direct, indirect, and induced jobs created to 409). In addition, the cost of our program will run approximately \$5.75 million with \$2.26 million requested from NTIA and the remaining \$3.48 million provided by Genoa and partners as 'match' over the life of the project. By linking the visually impaired with a large pool of remote guides via a network of mobile webcam and audio peripherals, the program can also facilitate other types of remote activities -' including distance learning, job training, and telemedicine. As such, the platform will support use by vulnerable populations (low-income, unemployed, aged, etc.) in served, unserved, and underserved areas and by public safety agencies (enhanced emergency response capabilities). Innovative Approach Generating Extraordinary Results: In sum, this innovative platform will (i) empower those with vision impairments to greatly expand their range and utility of their activities without meaningful cost to society; (ii) create 306 'shovel ready' jobs across the country (engineers, software developers, administration, virtual guides); (iii) add an estimated 8,233 additional BB users nationwide (virtual guides and visually impaired beneficiaries); (iv) dramatically increase the level of volunteerism in the U.S. (e.g. Rotary training services); (v) lower the access costs (BB access, hardware, software) for users of all telepresence; (vi) spur the adoption of telemedicine, job training, distance learning activities; and (vii) enable public anchor institutions (school, hospitals, community centers) and public safety entities to better manage and respond to the needs of the blind population.



Winter 2010 BTOP Application Information:

Applicant	COUNTY EXECUTIVES TELECOMMUNICATIONS INITIATIVE WASHINGTON, DC
Contact	Michael Griffin (202) 737-0556 mgriffin@countyexecutives.org
Easygrants ID	7108
Project Title	County Executives Telecommunication Network (CETN) formerly the County Executives Television Network
Description	CETN will provide the middle mile broadband connectivity for county governments. This initiative provides the broadband communications network which currently does not exist, linking anchor institutions during times of emergency. This comprehensive community infrastructure can be accessed for best practices, state of the art first responder training, information sharing and workforce improvement.
States Served	AK, AL, AR, AZ, CA, CO, CT, DC, DE, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, MA, MD, ME, MI, MN, MO, MS, MT, NC, ND, NE, NH, NJ, NM, NV, NY, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VA, VT, WA, WI, WV, WY
Project Type	CCI
Federal Request Amount	\$ 53,715,757

Executive summary:

For many years, county executives sought to create a broadband communications network capable of surviving both man-made and natural disasters while also meeting the growing needs of county employees and residents for training, information and service delivery. The County Executives Association (CEA) seeks BTOP funding for a County Executives Telecommunications Network (CETN) to create a nationwide middle-mile satellite delivered broadband network. When disaster strikes, terrestrial networks often fail and agencies and jurisdictions need to communicate without network interruption. The 3,089 counties across the country need only look to the lessons learned from September 2001 and Hurricane Katrina in August 2005. CETN proposes to address two profound needs of an estimated 2,100 county governments and the citizens they serve ' access to a resilient and redundant broadband network which can survive a disaster for emergency communications and the adoption of broadband technologies and e-learning to bring down costs of emergency exercises, training, and health education. CETN would create a nationwide middle-mile broadband satellite infrastructure for use during emergencies but also for daily use for county employees and residents' training needs. Counties continue to search for solutions to providing public safety communications. According to the Department of Transportation, 68% of all counties are economically distressed. As budgets decline, training needs for county employees continue to grow. U.S. Census Bureau data shows county governments receive just 3% of their overall revenue from the federal government. A 2009 Survey by the National Association of Counties reveals that 56% of counties started their fiscal years with up to a \$10 million projected shortfall; 47% of county shortfalls increased after the start of their fiscal year. As a result, 60% delayed purchases and repairs; 59% froze pay; 49% froze hiring and 44% raided reserve funds. CETN can help citizens find jobs and acquire skills. The FCC's National Broadband Plan shows that many employers are exclusively posting jobs online, preventing citizens without access from seeking these opportunities. With limited travel budgets, e-Learning is essential to meet the training needs of county governments and anchor institutions. For counties, saving money equates to saving jobs. . Approximately half of all counties are located in underserved or unserved areas of the country. The ability to use distance learning tools to train employees in the public safety, health care, and community colleges is limited by available bandwidth. CETN enables training at a scale not available through traditional instructor led programs. The effectiveness of distance learning courses is well documented providing a return on investment of 4:1 to 7:1 over instructor led training. CETN will enable additional applications like video conferencing, policy training, and compliance training to develop. These collaborative opportunities would not be possible without broadband connectivity or BTOP support. . Police Chiefs report that this training helps retain police officers and empowers officers in various law enforcement disciplines. CETN is currently available as a web portal to each of CEA's 700+ member counties. CETN's contractor, CiNet, delivers training today to hundreds of county institutions from police and fire departments to community colleges. Description of the proposed funded service areas The project proposes to develop and implement a middle mile broadband network connecting at least 2,100 of the 3089 counties nationwide. This includes counties that have already invested in broadband and those that are under-served or unserved. Proposed services and applications CETN's IP network will provide the e-Learning and workplace training solutions needed with a library of multimedia materials delivered through a customizable edge content delivery platform. It will comply with industry and government mandates, and facilitate individual career advancement. CETN's eLearning platform will offer on-demand and continuing education solutions, accredited programs, and



reporting tools on courses delivered. In addition, CETN will create content and continuing education courses specified by the counties. Once CETN is operational, a host of uses and applications will offer counties a solution for secure communications, enhancing inter-agency and cross-jurisdictional communication. CETN will make exercises and training and job development less expensive, removing time and location barriers. Community colleges are also an integral part of the eco-system, often operating under county support and supervision. These colleges provide opportunities to recruit and train employees, and CETN expects these colleges to be beneficiaries of the new network. When community colleges link to the CETN satellite network, access to e-Learning opportunities will open up. Online courses will compliment in-class instruction. . Community colleges lag in connectivity but have dramatically grown in enrollment as students seek more affordable education. First responders (police, fire EMS and healthcare) are mandated to maintain continuing education as a requirement for their professional licenses. What first responders lack is quality multimedia training content that can only be delivered through broadband for the mandatory training that does not require skills competency demonstrations (e.g. CPR, firearms)' However, no emergency communication or information-sharing network exists that allows employees to take advantage of such services. CETN addresses this gap. The communication and gap was evident during Hurricane Rita in 2005 when satellite communications were used by Mayor Robert Eckles to manage the evacuation of Houston. Type of broadband system CETN is an Internet Protocol (IP) data infrastructure that leverages existing terrestrial communications via satellite infrastructure. The functional components of CETN will include content delivery, store and forward capability, video conferencing, VoIP and a satellite based IP network. CETN's National Operations Center (NOC) will manage and support the data infrastructure. The day-to-day functionality at the county point of presence will vary from bi-directional (two way data exchange) to receive only (one way data exchange). In emergencies, routine functions will be dynamically altered to enable bi-directional data exchanges. Every site, when activated, will have internet access, VoIP connectivity, and emergency communications features. Counties will become a local 'hub' for the IP data infrastructure. The IP is flexible enough to allow the localized hub to be a 'regional center' for several counties or a single point of presence. Satellite service delivery is unique in telecommunications. As a system, it is first, last and middle mile all wrapped together. As such, it will deliver last mile connectivity to unserved and underserved areas. By connecting to the counties, CETN provides the middle mile broadband capability. Qualifications of the Applicant County Executives of America (CEA) is a not for profit entity representing the chief elected county government executives and is the applicant seeking funding for the CETN project. CEA has also partnered with other stakeholder associations including: other County Associations; National Sheriffs Association and International Association of Emergency Medical Service Chiefs. CETN's for profit partners include Critical Information Network, IntelSat, KenCast and iDirect, all providers of broadband communications nationwide. The project builds on successfully delivering training video via satellite or terrestrial broadband to 1,200 county sites nation-wide. CETN will utilize proven methodologies and their contractor's experience in the deployment of the satellite broadband middle mile network... CETN will manage the centralized outreach, site reviews, installations and testing using a program management office. County Executives have worked on CETN for years, the CEA Board having passed a 2007 resolution endorsing the need. This shovel ready project will create jobs and cannot proceed but for stimulus funding. County Executives are responsible for the operations, management, and use of most of the anchor institutions described in the BTOP program. Overall infrastructure cost CEA requests \$53,715,757 (\$25,579 per county) and will offer a \$23,022,300 in kind match (\$10,963 per county). Job Creation This project will create 23 direct jobs, 330 indirect jobs, and 2142 induced jobs.