

<b>Submitted Date:</b> 3/15/2010 10:25:39 AM	Easygrants ID: 5507
<b>Funding Opportunity</b> : Sustainable Broadband Adoption	Applicant Organization: ZERODIVIDE
Task: Submit Application - Sustainable Broadband Adoption	Applicant Name: Ms. Tessie Guillermo

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# A. General Application Information

Applicant Information	
Name and Federal ID for Applicant	
DUNS Number	829939854
CCR # (CAGE)	5DKM3
Legal Business Name	ZERODIVIDE
Point of Contact (POC)	TESSIE GUILLERMO
	4157730388
	Ext.
	tessie@zerodivide.org
Alternate POC	JOHN HOFFMAN
	4157730388
	Ext.
	jhoffman@zerodivide.org
<b>Electronic Business POC</b>	TESSIE GUILLERMO
	4157730388
	Ext.
	tessie@zerodivide.org
Alternate Electronic Business	LAURA EFURD
POC	4157730388
	Ext.
	laura@zerodivide.org

Name and Contact Information of Person to be Contacted on Matters Involving this Application:	
Prefix	Ms.
First Name	Tessie
Middle Name	
Last Name	Guillermo



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Suffix	
Telephone Number	14157730388
Fax Number	14157730380
Email	tessie@zerodivide.org
Title	President & CEO

# Additional Contact Information of Person to be Contacted on Matters Involving this Application:

Project Role	Name	Phone	Email
Secondary Point of Contact	Mr. John , Hoffman	4157730388	jhoffman@zerod ivide.org

Other Required Identification Numbers	
Easygrants ID	5507
<b>Funding Opportunity Number</b>	500001
Catalog of Federal Domestic Assistance Number	BTOP CFDA Number: 11.557 BTOP CFDA Title: Broadband Technology Opportunities Program

Organization Classification	
Type of Organization	Non-profit Foundation
Is the organization a small business?	No
Does the organization meet the definition of a socially and economically disadvantaged small business concern?	No

# **Authorized Organizational Representative**



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AOR	GUILLERMO, TESSIE
Result	Applicant Authorized

# **Project Title and Project Description**

Project Title: Tribal Digital Village Broadband Adoption Program

**Project Description**: ZeroDivide's "Tribal Digital Village Broadband Adoption Program" will increase broadband adoption from the 17% current baseline usage to 70% (4800 new broadband users) among members of 19 Native American tribes in rural So. California. This will be accomplished through outreach & public awareness, digital literacy training, content creation, and establishment of sustainable business models.

#### **Other Applications**

Is this application being submitted in coordination with any other application being submitted during this round of funding?

#### Yes

Easygrants ID	Project Title
5654	SCTCA/TDVNet to the Home

If YES, please explain any synergies and/or dependencies between this project and any other applications.

ZeroDivide's TDV Broadband Adoption Program application is not being submitted in coordination with another BTOP application. However, it is being submitted in coordination with Southern California Tribal Chairmen's Association (SCTCA) ARRA Rural Utilities Service Broadband Initiatives Program (BIP) application. That application is intended to support the expansion of TDV's wireless broadband network infrastructure ("TDVNet Tribal Home Deployment").

TDV will offer broadband internet connectivity to 2000 Tribal homes on 15 of the 19 tribal communities of the SCTCA in San Diego County. Residential broadband services will be deployed through the Tribal Digital Village Network that currently serves the tribal community



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anchor institutions at no cost. These community anchor institutions--libraries, resource programs, schools, and tribal community buildings--will serve as meeting places and training sites for advancing the TDV Broadband Adoption project.

In 2006, TDV made its first effort to bring wireless internet access into 22 homes on the Mesa Grande Reservation through a partnership with ZeroDivide and the Champaign-Urbana Community Wireless Network. Beginning in 2009, TDV and ZeroDivide expanded this network to an additional 200 tribal homes.

If successful in receiving funding, SCTCA's TDVNet Tribal Home Deployment will provide much needed resources to continue the build-out of their residential internet infrastructure and help assure that residents participating in the broadband adoption programs have an option for affordable broadband service. Establishing affordable broadband service on the reservations is a key component to increasing adoption among tribal members. Also, the sustainability of the broadband network expansion in the BIP application will depend upon increased broadband subscribership and adoption supported in the ZeroDivide/TDV Broadband Adoption application.

Another key synergy with TDV's BIP application involves the TDV Shadow Project in our BTOP SBA application. The TDV Shadow project will train and mentor 10 community youth to deploy and operate TDV wireless broadband network. Shadow project participants will work directly on the network build-out supported by the BIP application.

Is the Applicant exempt from the Department of Commerce requirements regarding individual background screening in connection with any award resulting from this Application?

No, Applicant is subject to these requirements

If the answer to the above question is "No," please identify each key individual associated with the Applicant who would be required to complete Form CD-346, "Applicant for Funding Assistance," in connection with any award resulting from this Application:

Name	Title	Employer
Laura Efurd	Chief Community Investment Officer	ZeroDivide



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# B. Executive Summary, Project Purpose and Benefits

# **Essay Question**

#### **Executive Summary of the proposed project:**

Problem Statement: The National Congress of American Indians estimates that only 5-8% of Native Americans living on tribal lands have residential broadband access. A 2007 US Census Bureau study reported that broadband adoption rates by American Indians and Native Alaskans was 30%, the lowest adoption rate of any ethnic group. A 2009 study by Native Public Media concluded that broadband adoption efforts must accompany deployment of infrastructure and be driven by the Native American tribal community. Geographic isolation and cultural differences make tribal communities especially vulnerable to disparities in broadband deployment and adoption. In addition, telecommunications companies are not interested in deploying internet to these communities due to the limited financial return on investment. Consequently some tribal entities, such as the Southern California Tribal Chairmen's Association (SCTCA), have been forced to build and operate their own broadband networks. Through their Tribal Digital Village (TDV), SCTCA maintains a high-speed wireless broadband network linking community anchor institutions of 19 Tribal reservations. This network serves as the only internet access point for thousands of tribal members. TDV has begun a major effort to expand its network to 2,000 tribal homes. However other barriers continue to prevent adoption-including affordability, lack of training, perceived lack of relevance to their lives, and lack of linguistic and culturally approriate content. These barriers perpetuate the digital divide and an "opportunity" divide that must be overcome to correct disparities in health, education, civic engagement and economic status among tribal members. Solution: Since 2006, ZeroDivide has partnered with TDV to expand broadband access and adoption among the SCTCA tribal communities. The proposed TDV Broadband Adoption Program will increase broadband adoption among the 8,900 Tribal community members from the current 17% baseline to 70% usage. The program will augment TDV's deployment of a residential Tribal broadband network to 2,000 tribal homes through a comprehensive four-component broadband adoption strategy: 1) Outreach and Public Awareness, 2) Basic and Advanced Digital Literacy Training, 3) Creation of Meaningful Content, and 4) Sustainability. This program addresses the BTOP goals of 1) providing improved access to broadband service to consumers residing in unserved and underserved areas of the country; 2) providing broadband access, education, awareness, training, equipment, and support to community anchor institutions and organizations serving vulnerable populations; and 3)



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stimulating the demand for broadband. Approach/Innovation: TDV and ZeroDivide propose a comprehensive approach to increasing and integrating broadband adoption by tribal members. Our program addresses multiple barriers to broadband adoption, utilizes the resources of the community anchor institutions on the reservations, supports the cultural heritage of tribal communities, increases technology job skills, and links community members to resources, networks, and activities via the internet. In addition, a major outcome of this program is a viable business model to sustain the broadband access and adoption activities beyond the BTOP grant. Program components are: 1) Outreach and Public Awareness: A multi-faceted public awareness campaign utilizing traditional methods of communication among tribal members to promote both the availability of new wireless networks and broadband training sessions. 2) Basic & Advanced Digital Literacy/Technology Training: 40–60 training sessions teaching broadband application skills conducted in 31 community anchor institutions. Participants will also have the option to obtain a free computer from the San Diego Futures Foundation. In addition, the TDV Shadow Project will train and mentor 10 community youth to deploy and operate the TDV wireless broadband network. 3) Creation of Relevant and Meaningful Content: TDV will redesign its website to support distribution of more robust content, tribal government services, and community content. In addition, the program will train participants in advanced broadband applications including digital video production, sound engineering, graphics, website development and the use of social media. 4) Sustainability: ZeroDivide, has successfully invested in several social enterprises since 1997, will work with TDV to test its emerging ISP business model that will sustain TDV's wireless broadband service and related adoption efforts beyond the life of the BTOP grant. Areas to be Served: The reservations of 19 federally recognized tribes that are members of the Southern California Tribal Chairmen's Association. The reservations are primarily located in San Diego County, California, and are scattered within an area beginning in southern Riverside County, California, and stretching southward 150 miles to the U.S.-Mexico border. Target Population: 8,900 enrolled tribal members of 19 Native American tribes in Southern California and 2,000 residents living in communities adjacent to the tribes. Demographic Information: The vast majority of the target population is Native American, including 8,900 enrolled tribal members. The additional 2,000 residents living in communities near the tribes are Native American and Hispanic. Based on year 2000 Census figures, 77.94% of the population was born on the reservations. 68.39% of the population is not in the work force and 26.85% is employed. 41.47% of the population has an income less then \$24,999 and 29.73% of the people live at or below the poverty line. 26.05% of the people at the poverty line are families with children. 41.33% of the population is under 18 years old and 11.74% is over 55. 35.14% are ESL (English as second language). 16.14% of the population is disabled. Of those



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with disabilities, 28.64% live at or below the poverty line. Qualifications: ZeroDivide is a 501(c)(3) public foundation supporting technology adoption in underserved communities. Established by community leaders from California's most underserved populations, Zerodivide has expertise in overcoming barriers to technology adoption in disadvantaged communities. In the past 10 years, ZeroDivide has worked to build technology capacity among nearly 450 community anchor institutions and increase technology (including broadband) adoption in the communities it serves. In addition to the technology outcomes of our programs, we have increased graduation rates among low-income and at-risk youth in Long Beach; increased access to health care for limited English proficient and low-income individuals in San Francisco; and media content distributed via broadband networks throughout California to better reflect the state's diverse populations. ZeroDivide has the management staff and qualifications to replicate and scale models, including:

- a. Technical, organizational and financial capacity
- b. Ability to leverage experience and philanthropic/corporate relationships
- A track record in stimulating broadband demand and adoption in vulnerable communities Tribal Digital Village was established in 2001 through a community planning process among the SCTCA tribes, initiated by their successful application for a 3 yr, \$5 million grant from the Hewlett Packard Company (HP). As a result, TDV was established to deploy a high-speed wireless internet data network linking the major community anchor institutions of 19 Tribal reservations throughout Southern California. TDV led the construction and deployment of the network, trained tribal youth to participate in building and creating the network, and trained staff and residents on computer and internet use. Over the last 9 years they have continued to maintain the network, providing customer service and troubleshooting everyday network issues. This staff also manages the network recovery from major disasters such as the San Diego fires in 2008. The TDV staff are from tribal communities. HP funding ended after three years, further underscoring the need for BTOP monies to provide sustainability in this dramatically underserved population. SCTCA is applying for a BIP grant to support the expansion of its wireless broadband network infrastructure (TDVNet Tribal Home Deployment). Outcomes: This program will result in 4,000 new broadband users at 2000 tribal homes, 750 new users at community anchor institutions, and 50 new business users-for a total of 4,800 new users. Combined with the existing 1,500 broadband users, there will be a total of 6,300 broadband users at the end of this program.

Job Creation: 11 jobs saved or created (using Nat'l Council of Economic Advisors method)



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Overall Cost: ZeroDivide proposes an overall project budget of \$986,060. Of this amount, ZeroDivide requests \$686,157 in BTOP Sustainable Broadband Adoption funds and will provide \$299,903 in cash match for 30.4% of the project costs.

#### **Project purpose:**

Project Purpose: The purpose of the Tribal Digital Village (TDV) Broadband Adoption Program is to increase broadband adoption and stimulate demand for economic growth and job creation in 19 Native American reservations in Southern California. This program addresses the BTOP goals of 1) providing improved access to broadband service to consumers residing in unserved and underserved areas of the country; 2) providing broadband access, education, awareness, training, equipment, and support to community anchor institutions and organizations serving vulnerable populations; and 3) stimulating the demand for broadband, economic growth and job creation. Significance of Problem: The National Congress of American Indians estimates that only 5-8% of Native Americans living on tribal lands have residential broadband access. A 2007 US Census study reported that broadband adoption rates by American Indians and Native Alaskans was 30%, the lowest adoption rate of any ethnic group. A 2009 study by Native Public Media concluded that broadband adoption efforts must accompany deployment of infrastructure and be driven by the Native American tribal community. Geographic isolation and cultural differences make tribal communities especially vulnerable to disparities in broadband deployment and adoption. In addition, telecommunications companies are not interested in deploying internet to these communities due to the limited financial return on investment. Consequently, some tribal entities, such as the Southern California Tribal Chairmen's Association (SCTCA), have been forced to build and operate their own broadband networks. Through its Tribal Digital Village (TDV), SCTCA maintains a high-speed wireless broadband network linking community anchor institutions of 19 reservations. This network serves as the only internet access point for thousands of tribal members. TDV has begun a major effort to expand its network to 2,000 tribal homes. However, other barriers continue to prevent adoption including affordability, lack of training, perceived lack of relevance to their lives, and lack of linguistic and culturally appropriate content. These barriers perpetuate the digital divide and an "opportunity" divide that must be overcome to correct disparities in health, education, civic engagement and economic status among tribal members. Effective Solution: Since 2006, ZeroDivide has partnered with TDV to expand broadband access and adoption among the SCTCA tribal communities. The proposed TDV Broadband Adoption Program will increase broadband adoption among the 8,900 tribal community members from the current 17% baseline to 70% usage. The program will augment TDV's deployment of a broadband network to 2,000



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tribal homes through a comprehensive four-component broadband adoption strategy: I. Outreach and Public Awareness, II. Basic and Advanced Digital Literacy Training, III. Creation of Meaningful Content, and IV. Sustainability. The program is designed to address multiple barriers to broadband adoption, including affordability, access to computers, digital literacy training, and relevancy of content to Native Americans. In addition, the project will utilize and build capacity in community anchor institutions on reservations to support broadband adoption by tribal members. Our approach also stresses integration of broadband usage into the everyday lives of tribal members to increase their overall health and well being; support the cultural heritage of tribal communities; increase technology job skills; and improve educational and economic opportunities for tribal members. Broad Significance: Residents in rural areas and Native American reservations are among the lowest adopters of broadband. The TDV Broadband Adoption Program will demonstrate effective and sustainable broadband adoption strategies that can be replicated in other tribal and rural communities. TDV already serves as a model for broadband deployment in rural and geographically challenged areas. Their model has been used to create broadband networks in the Coeur d'Alene reservation, the Navajo Nation, and communities in Chile, Ghana and Southern India. The Federal Communications Commission recognizes TDV as a successful rural Wireless Internet Service Provider (WISP). ZeroDivide's program will create two additional, replicable components to TDV's successful broadband deployment model: 1) a comprehensive, culturally competent broadband adoption model; and 2) a financially sustainable community-owned and operated ISP. We also expect to gain valuable knowledge from lessons learned during implementation. Although this program is based on sound data, in-depth knowledge of communities, and significant experience in broadband adoptions programs, we expect to learn a great deal more about broadband adoption strategies and methodologies among tribal communities. In ZeroDivide's first collaboration with TDV in 2006 - to deploy wireless broadband to homes on the reservation - we learned a great deal about the technical difficulties of deploying open source technology on a remote reservation, the need for significant outreach and education prior to deployment, and the level of training necessary for regular broadband use. We intend to document and disseminate widely our lessons learned, so that other tribal and rural communities can replicate and improve upon this model. Unserved and Underserved Area: This program will address broadband adoption in both unserved and underserved areas. Residential broadband service is not currently available on all SCTCA reservations. In some areas broadband services can only be obtained through satellite, which is often prohibitively expensive. While TDV is currently expanding its wireless network to 2,000 residences, this will not cover all homes. For residents who do not have access to broadband in



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the home, this project will build the capacity of existing public access points at community anchor institutions.

#### **Recovery Act and Other Governmental Collaboration:**

Tribal Digital Village Broadband Adoption Program is not receiving any other Recovery Act, federal or state developmental funds.

#### **Technology Strategy:**

ZeroDivide's technology strategy addresses barriers to technology adoption that go beyond affordability and network access. Thus, this project will increase sustained broadband adoption within the targeted population through a combination of training sessions delivered at locations within Tribal Digital Village (TDV)'s network of 86 tribal community centers, libraries, public safety agencies and other community anchor institutions, including 4 tribal flagship upgraded technology training centers (Pala Learning Center/Library, Rincon Indian Education Center/Library, San Pasqual Education Center/Library and The Barona Museum). These centers will leverage TDV's existing broadband network.

Course curricula will provide basic technology skills training to access vital individual, community and business benefits via online content/applications that require broadband connectivity. Individual participant content and applications training includes access to 1) online job listings and career-building content; 2) financial and banking information; 3) free internet-based telephony; 4) digital media and social media; and 5) home entertainment. Community-wide content and applications include access to 1) tribal/governmental resources; 2) health care information and alternative health care; 3) community-relevant digital content; and 4) extended learning. Business specific content and applications include: 1) e-commerce and online auction sites where Native American artists and craftspeople can sell their goods; 2) access to business and financial information; 3) the ability to send and receive large files; and 4) small business access to a global customer base.

Curriculua will be broken out into two main tracks: 1) Basic Computer Skills, including computer vocabulary, file structuring, word processing, spreadsheets and internet/email; and 2) Broad Applications, including broadband telephony, e-commerce, access to content, and basic digital video/audio.



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Technology training sessions will utilize 10 new HP TouchSmart 9100 VS663UT Intel Core 2 Duo T6570 2.10GHz, 2GB DDR3, 250GB HDD, 23" TouchScreen LCD, Windows 7 Professional PC's at each location. A portable laptop, projector and screen will be acquired to run demonstrations and trainings. In addition, the Pala Learning Center will be equipped with a static projector and screen.

Concurrent with this application is Southern California Tribal Chairmen's Association/TDV's request to the Rural Utilities Service under the Broadband Initiatives Program, to expand TDV's network to 2000 homes via a 300 mile point-to-point infrastructure. This network will provide low-cost service of up to a 3/3 Mbps broadband connection to residents who currently have no other viable home broadband access options within the three-year period.

#### **Innovative Approach:**

ZeroDivide's innovative approach transforms vulnerable and underserved communities by building their capacity to understand, design, and adopt broadband and other technologies. From its inception, the TDV broadband wireless network has been a community-led effort to bring internet technology to remote Native American reservations. The proposed program will build upon this landmark effort and strengthen the tribes' ability to increase and sustain broadband and technology adoption on the reservations.

# Our strategy has four key components:

Comprehensive: Our program is designed to address multiple barriers to broadband adoption, including affordability, access to computers, digital literacy training, and relevancy of content to Native Americans. In addition, the project will utilize and build capacity in community anchor institutions on reservations to support broadband adoption of tribal members. Our approach also stresses integration of broadband usage into the everyday lives of tribal members to increase their overall health and well being; support the cultural heritage of tribal communities; increase technology job skills; and improve educational and economic opportunities for tribal members.

Community-led: Tribal Digital Village was established in 2001, through processes rooted in tribal communities and traditions. As a tribal entity, TDV has significant expertise in ensuring that all programs and practices are culturally competent and incorporate community voices and input.



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Ecosystem of Support: The great value of ZeroDivide's methodology is to provide an ecosystem of support for its community partners. Specifically, ZeroDivide provides TDV with technical assistance and capacity building in such areas as metrics/data collection/evaluation, business development, financial reporting, fund development & sustainability, and accessibility for individuals with disabilities. ZeroDivide can guide implementation of adoption methods based on 10 years of funding successful programs. We will leverage relationships with the technology industry, philanthropy, non-profit technical assistance providers, and volunteer organizations. For example, through ZeroDivide TDV will have access to low cost hardware and software via organizations such as TechSoup Global and the San Diego Futures Foundation, and access to CRM Salesforce.com.

Sustainability: A unique aspect of our methodology is to foster in our partners a revenue generation component to support sustained technology usage and ongoing adoption. This not only ensures long-term use of broadband, but also creates self-sustainable enterprises capable of building definable consumer markets for future broadband services and applications. Since 1997, ZeroDivide has successfully supported several such social enterprises. The program will test TDV'S emerging ISP business model which can sustain their wireless broadband service and related adoption efforts beyond the life of the BTOP grant.

Is the applicant is seeking a waiver of the Buy American provision pursuant to section x.Q of the NOFA?

No

Is the applicant deliquent on any federal debt?

No

If Yes, justification for deliquency:

Are you seeking a waiver of any requirement set forth in the NOFA that is not mandated by statute or applicable law?

> No

# C. Partners



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# Are you partnering with any other key institutions, organizations, or other entities for this project?

> Yes

If YES, key partners are listed below:

Project Role: Sub-recipient Name: Rantanen, Matthew Email: mrantanen@sctdv.net Address 1: P.O. Box 1470

Address 2: Address 3:

City: Valley Center State: California Zip Code: 92082

Organization: Southern California Tribal Chairman's Association

Organization Type: Indian Tribe

Small business: No

Socially and economically disadvantaged small business concern: No

Project Role: Third party in-kind contributor

Name: Graulich, Megan Email: megan@sdfutures.org Address 1: 4283 El Cajon Boulevard

Address 2: Suite 130

Address 3: City: San Diego State: California Zip Code: 92105

Organization: San Diego Futures Foundation Organization Type: Non-profit Corporation

Small business: No

Socially and economically disadvantaged small business concern: No

#### Description of the involvement of the partners listed above in the project.

In 2001, Southern California Tribal Chairmen's Association, using a three-year \$5 million grant from Hewlett Packard, created the Tribal Digital Village (TDV). Using a high-performance wireless backbone, TDV delivers broadband over a network spanning 300-plus miles of point-to-point and point-to-multi-point connections to over 1000 computers and network devices. TDV's



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wireless backbone supports 86 tribal buildings and community anchor institutions in and around 19 tribal reservations: Tribal libraries, fire stations, sheriff substations, Tribal law enforcement offices, learning centers, after-school resource centers, Tribal schools, TANF offices, and Tribal business and administrative buildings. TDV provides cultural education, technology training, job placement, and other social services through its community resource centers. In 2006, due to the lack of residential internet service on some reservations and the prohibitively high costs for residential service on others, TDV and ZeroDivide partnered in the provision of wireless deployment to 22 reservation households. Currently, TDV and ZeroDivide are expanding this network to 2,000 tribal homes on 15 of the 19 reservations spread out over more than 9,000 square miles of San Diego County. TDV's largest role will be to maintain and operate the broadband wireless network. In addition, TDV will serve as liaison to the tribal governments and members, and ensure strong community participation and input into the broadband adoption programs. TDV will also conduct a culturally appropriate public outreach and awareness campaign, and provide on-the-ground support for training programs, content development, and capacity building for the community anchor institutions. TDV operates an audio/video recording studio that will be used by Tribal communities to generate relevant cultural and educational content which will be disseminated to the Tribal community through the TDV web portal. TDV engaged with ZeroDivide in a joint planning process to design this project. SCTCA and the Tribal Council leaders fully support this project and have participated in previous tribal awareness campaigns and community briefings. TDV has the infrastructure in place to support such an endeavor and already has 90% of the technology staff in place. TDV's staffing includes a Director of Technology; Asst. Director; Network administrator; and two IT staff members.

Through SCTCA TDV, which meets the definition of a socially and economically disadvantaged small business concern (SDB), is separately applying for a BIP grant to support the expansion of its wireless broadband network infrastructure ("TDVNet Tribal Home Deployment").

#### Address:

Southern California Tribal Chairmen's Association Tribal Digital Village P.O. Box 1470 Vallay Center, CA. 92082 Contact: Matthew R. Rantanen Director of Technology (760) 742-8690 x102



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# **D.** Congressional Districts

# **Applicant Headquarters**

California

#### **Project Service States**

California

#### **Project Service Areas**

California - 49

California - 51

California - 52

Will any portion of your proposed project serve federally recognized tribal entities?

> Yes

Indicate each federally recognized tribal entity your proposed project will serve.

Barona Band of Mission Indians

Cahuilla Band of Mission Indians

Campo Band of Mission Indians

Chemehuevi Tribe

Ewiiaapaayp Band of Kumeyaay Indians

Inaja-Cosmit Reservation

Jamul Indian Village



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La Jolla Band of Luiseno Indians

La Posta Band of Mission Indians

Los Coyotes Reservation

Manzanita Band of Mission Indians

Mesa Grande Band of Mission Indians

Pala Band of Mission Indians

Pauma/Yuima Band of Mission Indians

Rincon Band of Mission Indians

Santa Ysabel Band of Mission Indians

Sycuan Band of Mission Indians

Viejas Band of Mission Indians

San Pasqual Band of Diegueno Indians

Have you consulted with each of the federally recognized tribal entities identified above?

Yes

# **E.** Community Anchor Summary

Community Anchor Institution	
Schools (k-12)	0
Libraries	12
Medical and Healthcare Providers	2
<b>Public Safety Entities</b>	4



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Community Colleges	0
<b>Public Housing</b>	0
Other Institutions of Higher Education	0
Other Community Support Organization	4
Other Government Facilities	8
TOTAL COMMUNITY ANCHOR INSTITUTIONS	30
<b>Minority Serving Institution</b>	s
Historically Black colleges and Universities	0
Tribal Colleges and Universities	0
Alaska Native Serving Institutions	0
Hispanic Serving Institutions	0
Native Hawaiian Serving Institutions	0
TOTAL MINORITY SERVING INSTITUTIONS	0

# F. Demographics

Will your proposed project be specifically directed to serve vulnerable population groups?

> Yes

If "Yes" which vulnerable population groups will your proposed project serve? Check as many as apply: Hispanic



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Native American or Native Alaskan

English as Second Language (ESL)

Disabled

Low Income

Unemployed

Senior Citizen (55 and over)

Youth

#### Other:

#### **Vulnerable Populations**

The TDV Broadband Adoption Program is 100% targeted towards vulnerable populations. Those served are Native Americans, Hispanic, disabled, unemployed, seniors and youth living on or near 19 Native American reservations in economically distressed areas of Southern California. Census data for this region indicates the following: 95% are Native American, of whom 78% were born on the reservations; 41% are under 18 years of age; 12% are over 55 years old; 99% live in rural non-farm areas; 35% speak English as a Second Language; 68% are not employed; 42% have household income less than \$25,000 per year; and 16% are disabled.

Native Americans: We will address specific barriers to adoption of broadband among tribal communities, including access to broadband services, training, access to computers and availability of relevant content. As a tribal entity, TDV has significant expertise in ensuring that all programs and practices are culturally competent and incorporate community voices and input. Hispanics: A significant Hispanic population resides near the Indian reservations, and will be directly recruited in this program. Outreach materials will be targeted to Hispanic residents, and several trainings will be conducted in Spanish.

Disabled: Training individuals with disabilities will ensure their access to broadband adoption programs. TDV's facilities are fully accessible, and, where needed, training will incorporate specialized software for those with graphical user interface (GUI) deficiencies (i.e. blindness,



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deafness, or vision or hearing impairment). ZeroDivide utilizes the Alliance for Technology Access to provide technical assistance in all our technology programs.

Low-Income: Broadband adoption programs will be provided free of charge. In addition, free computers will be available for low-income households via donations of computers through technology refurbishing organizations such as the San Diego Futures Foundation. Unemployed: Trainings will utilize curriculum that addresses the needs of unemployed participants, including job search and technology related job skills. Training on advanced broadband applications will teach real-life job skills such as website design, sound and audio engineering, video, and graphics production.

Seniors: The broadband adoption training will utilize curriculum developed specifically for seniors. Some classes will be provided in native languages, specifically for the purpose of targeting tribal elders who often have limited English language proficiency.

Youth: Several trainings are targeted for youth, with the goals of increasing educational attainment and building job skills. The TDV Shadow Project will train and mentor 10 community youth to deploy and operate the TDV wireless broadband network. Similar trainings on advanced broadband applications such as digital video production, sound, graphics, website development and use of social media will be designed just for native youth participants.

#### Accessibility

The ZeroDivide TDV Broadband Adoption Program will serve the 8,900 members of the Southern California Tribal Chairmen's Association (SCTCA) tribes and an additional 2,000 residents living in communities adjacent to tribal lands. Based on Year 2000 census data, 16.14% of this population is disabled. Of those with disabilities, 28.64% live at or below the poverty line.

TDV's facilities are fully equipped to accommodate those with physical and mobility issues (i.e. walking, climbing stairs, reaching, lifting or carrying). All TDV buildings in the following reservations are in compliance with the Americans with Disabilities Act: Pauma, Pala, Rincon, Barona Inaja-Cosmit, Santa Ysabel, Mesa Grande, Campo, La Posta, Manzanita, La Jolla, Sycuan, Viejas, and Jamul.

ZeroDivide and TDV will take specific measures to address the needs of individuals with disabilities, including the use of specialized software for those with Graphical User Interface (GUI) deficiencies (i.e. blindness, deafness, or severe vision or hearing impairment), such as screen readers and voice recognition software for the visually disabled. We will collaborate with



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non-profit organizations dedicated to serving individuals with disabilities to ensure that residents obtain the necessary assistive technologies to enable full broadband adoption.

#### **Other Languages**

The demographics of the target population show that 65% speak English only and 35% speak English as a second language.

Outreach materials for all public awareness campaigns and broadband trainings will be provided in English, Spanish and selected native languages.

For the ESL population, specific outreach will include utilizing tribal organizations and entities. Traditional tribal networks will be used to conduct outreach to individuals who primarily speak their native tribal language. In addition to tribal members who speak native languages, there is a significant Hispanic population that resides near the reservations. Outreach to these groups will be made through Spanish-language community organizations and groups, as well as through the Native employers for whom many Hispanic area residents work.

The bulk of the trainings and other programs will be conducted in English. Several trainings will be conducted in Spanish and selected native languages.

Finally, participants in the advanced broadband applications programs will learn to create content in native languages, which can be distributed via the Tribal Digital Village website (http://www.sctdv.net/).

# G. Project Budget

Project Budget	
Federal Grant Request	\$686,157
<b>Total Match Amount</b>	\$299,903
Total Budget	\$986,060
Match Percent	30.4%



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#### **Projects Outside Recommended Funding Range:**

#### **Sustainability:**

For 10 years, ZeroDivide has focused on building and sustaining technology adoption in disadvantaged communities. ZeroDivide's approach to sustainability includes both the financial sustainability of the project beyond the BTOP grant period, and the sustainability of broadband adoption among new users.

ZeroDivide's plan for sustaining program operations beyond the BTOP grant period include an ongoing commitment to the TDV Broadband Adoption Program, a fund development strategy for securing ongoing government and private co-funding, and an innovative social enterprise model to generate earned income revenue for TDV.

In its most recently audited year, ZeroDivide had an annual operating budget of \$2,477,000, and has a current asset balance of \$11.4 million, of which \$10.2 million is cash and liquid investments. Through its cash match, ZeroDivide is directing \$299,903 toward this 2.50-year program which represents only 2.6% of its current net assets.

ZeroDivide has a 4-year history of funding and supporting TDV. Should federal awards be granted, ZeroDivide assures a long-term funding commitment will be provided to sustain operations at the TDV training centers beyond the initial build-out stage. In addition, ZeroDivide will direct its own fund development resources to partner with TDV during the grant period to raise additional funding from Federal and non-Federal sources. Since 2003, ZeroDivide has raised more than \$8 million in grants and contributions, which has been directed toward community anchor institutions like TDV.

In 2009, ZeroDivide helped TDV develop and implement an Internet Service Provider (ISP) service for tribal residents through its community wireless network. This social enterprise will help sustain the project beyond the initial grant period. Now in its first quarter of operations, the ISP has 55 customers generating \$2,500/month in gross revenues and projects to grow revenue to \$9,500/month by the end of the fourth quarter of operations. A key component of ZeroDivide's methodology is to provide an ecosystem of support to provide TDV with technical assistance and



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capacity building in business planning, marketing, financial reporting, and other enterprise development activities.

To ensure that broadband adoption is sustained, the project will provide technology-focused skills development via culturally competent hands-on training and classes. Course curricula will provide basic technology skills development that will enable new users to access vital online individual, community and business benefits. Courses will focus on subjects such as job search, health, civic and ecommerce content/applications that will be integrated into participant's lives, making broadband more essential to their lives.

Matching Funds	
Applicant is providing matching funds of at least 20% towards the total eligible project costs?	Yes
Describe the matching contributions	a) ZeroDivide will provide a match contribution of b) \$299,903, equal to 30.4% of the total budget for this program. c) The match will be made in cash from ZeroDivide's net assets, which totaled \$11.4 million as of 12/31/09, and \$10.2 of that total is invested in cash and highly liquid assets. d) Cash match will be used to provide grants for operating costs to our sub-recipient partners to implement the project.
Unjust enrichment	Neither ZeroDivide nor any of its sub-recipient partners is currently receiving Federal support of any kind in the area for which it is seeking an award. Neither ZeroDivide nor any of its sub-recipient partners currently has any applications pending for any other Federal support for this program.
Disclosure of federal and/or state funding sources	No Federal or State funding has been received or requested by ZeroDivide or its subrecipient partners for this program. No Universal Service Fund funding is being used or requested for this program.

<b>Budget Narrative</b>	
Budget narrative	Program requests \$686,157 in funding over 2.5 years, against a \$299,903 (30.4%) cash match from ZD, for a total project budget of \$986,060.



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Section B, Form 424A

a. Personnel, \$510,734; \$225,556 for 1.48 FTE of program mgmt staff; \$235,429 for 1.61 FTE of tech staff: (Technology Manager, Asst. Dir. Network, Asst., etc); and \$49,929 for .15 FTE of program oversight staff. Program projects 39.1% of personnel costs in year 1, 40.2% in year 2, with the balance of 20.7% in year 3 to transition the program. b. Fringe Benefits, \$125,685. Fringe rate is 25% (Social Security, FICA, health/life/disability insurance, and pension plan costs as provided for in OMB A-122.) c. Travel, \$7,950. Travel between TDV and ZeroDivide for program coordination, technical assistance and oversight. Each trip at \$825/trip (air: \$350; lodging: \$175; per diem and local transport \$150). 2 trips/year for ZD for a total of \$1,650 and 2 trips/year for TDV for a total of \$1,650. Also includes local travel between training sites, at an average round trip of 150 miles X \$.50/mile X 31 sites. d. Equipment, \$53,200. All purchased in year one. For trainings at 86 community centers: Sony VAIO VPCF11 Intel Core i7 Notebook PC: \$1,100, Epson PowerLite 1725 Multimedia Projector: \$1,200, Buhl Industries TPS-T60 Mobile Screen: \$200. For trainings at Pala Learning Center: Sony VAIO VPCF11 Intel Core i7 Notebook PC: \$1,100, Viewsonic Pro8100 LCD Projector: \$1,350, Elite Screens VMAX2, Projector Screen: \$350. For Shadow Project: HP ProBook 4710s Intel Core 2 Duo Notebook PC: 3 @ 800.00 = \$2400, HP Elitebook 8530w Intel Core 2 Duo Notebook PC: \$1,500. For training at 4 flagship tech centers: Intel Core 2 Duo, Windows 7 Professional PC's (10 @ \$1,100) X 4 centers = \$44,000.00. e. Supplies. \$2,000.00. To support the Public Awareness Campaign, a mailing list for 5000 households for \$1,000.00. Misc supplies for \$1,000. f. Contractual. \$71,900. \$17,000 to support a public awareness campaign, including \$8,500 for design, printing and postage for 2 mailings to 5000 homes, \$4,500 to add public awareness content to TDV website, and \$4,000 to update tribal video sharing website. \$45,000 to the Bay Area Video Coalition to develop the digital media curriculum/training program. \$900 for 10 Women's Audio Mission memberships @ \$30/yr for 3 years of digital media training/certification. \$9,000.00 for 36 guest trainer stipends @ \$250



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	for broadband literacy training sessions. g. Construction N/A. h.
	Other: \$1,200 for Clicktools aggregation software licenses @ \$300/yr
	for 3 yrs to measure adoption, \$11,700 of allowable pre-application
	personnel expense. i.Direct Charges \$786,369. j. Indirect Charges
	\$199,691. Charged at 26.8% of total allowable direct charges of
	\$753,469. (\$786,369 direct charges less total of subawards and
	contracts exceeding \$25,000 and pre-award expenses.) k. Total
	\$986,060. 7. No program income is being projected for this project.
	Unlike a broadband infrastructure program, adoption unit cost is
	primarily a function of labor expense to conduct outreach and provide
	training services, with some equipment and operational costs
	distributed over the total number of broadband adoption users trained.
	While there are no "industry benchmarks" for unit costs for broadband
	adoption, ZeroDivide has long-term expertise in assessing the
	reasonable cost of such programs. Based on a historical cost basis of
	technology adoption grants made by ZeroDivide's 10 years as a
	grantmaker in this area, Tribal Digital Village (TDV) will require
	support for 2.5 FTE of technical and training staff, a typical staffing
	pattern for comprehensive technology adoption programs.
	Additionally, ZeroDivide's oversight, management and delivery of
	supportive services requires coordination by a senior staff person, as
Budget reasonableness	well as a technology manager who oversees purposing of equipment
	and deployment at sub-recipient sites. These two positions total @ .75
	FTE. As essential due diligence, travel for ZeroDivide staff to TDV at
	least 2x/year will ensure resources are being appropriately deployed;
	as is consistent delivery of program services across all 7 sites. Also, a
	representative of TDV will attend a yearly ZeroDivide convening at its
	office in San Francisco to participate in trainings, evaluation activities,
	and best practice documentation. The average cost of each roundtrip is
	\$875 at current air, lodging and per diem rates. Trainings by TDV
	staff will be conducted 2x/year in 31 sites throughout the 19
	reservations served by the broadband adoption program, necessitating
	local mileage expense averaging 150 miles/trip @ .50/mile.
	Equipment purchases for this program are limited to training-related
	technology which will be used directly in delivering training at
	in delivering training at



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participating tribal center sites. Laptop computers and projection equipment are budgeted at current best retail prices. Awareness campaign costs include purchase of tribal member mailing lists and development and translation of printed brochures in appropriate languages, which will be distributed throughout the reservations at the cost of \$1,000 and \$8,500 respectively. TDV will redesign its website to expand functionality for digital video and social networking applications. Web design contract @ \$4500 is reasonable, and all development will be accomplished with TDV technical staff. An additional \$4500 is budgeted for the design of Tribal PEACE, a "YouTube for Tribes" application. Outsourcing of advanced trainings on digital video production and online distribution will be done through a \$50,000 subcontract for the Bay Area Video Coalition (BAVC). Guest speakers with subject-specific expertise will be used in at least one training at up to 18 sites annually. They will be drawn from TDV's and ZeroDivide's extensive network of technology instructors at local colleges and universities, and will receive a nominal speaking fee of \$250 for each presentation. Absent Federal funding, the Tribal Digital Village Broadband Adoption Program cannot be deployed. No other viable public or private institution exists that can provide the combination of funding for technology adoption (as proposed in this SBA funding request to NTIA), along with funding for broadband infrastructure (as outlined in the concurrent BIP application to RUS) that this program requires for successful deployment. **Demonstration of need** TDV was established in 2001 through a 3 year, \$5 million grant from the Hewlett Packard Company. Since this initial investment, HP funding for TDV has ended. In 2009, The Southern California Tribal Chairmen's Association was denied funding for TDV by several potential funders, including a denial of Round One funding by Rural Utilities Service Broadband Initiatives Program for a last mile infrastructure grant, and a denial of concurrent round one BTOP funding to NTIA.



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Despite being funded by the Administration for Native Americans (ANA) through the U.S. Dept. of Health and Human Services twice over a period of 36 months prior to 2009, ANA denied funding last year for a proposal to expand broadband adoption to 1,000 new users in the home. In its declination, ANA stated that, "due to sheer volume of applications, it was impossible to fund everyone this funding cycle."

ZeroDivide has also been unsuccessful in acquiring other funding that could support this program. In 2009, ZeroDivide submitted applications for \$14.865 million in restricted and unrestricted funding to non-federal grantmakers, but successfully received only \$520,000 of restricted grant funding. This 3.4% success rate was in stark contrast to ZeroDivide's prior rate of successful funding proposals, which averaged 30% for the two years prior, 2006 – 2008. ZeroDivide was denied grant funding from The Kellogg Foundation, The John D. and Catherine T. MacArthur Foundation, AT&T, The Knight Foundation, Citi, and others, many of which had funded ZeroDivide in the past. Despite strong interest, each of these grantmakers declined funding ZeroDivide's grant proposals because of reduced grantmaking due to the economic recession-induced reduction of their financial portfolios in late 2008-early 2009.

#### Funds to States/Territories

States	Amount of Federal Grant Request
California	686,157

Funds to States/Territories Total: \$686,157

# H. Historical Financials

**Matching Funds** 



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	2007	2008	2009
Revenue	4,070,501	-1,178,462	3,281,139
Expenditures	5,576,647	5,084,631	3,304,181
Net Assets	17,643,107	11,380,014	11,356,971
Change in Net Assets from Prior Year	-1,506,146	-6,263,093	-23,042
<b>Bond Rating (if applicable)</b>			

# I. Program Benefits

Jobs	
How many direct jobs-years will be created from this project?	4
How many indirect jobs will be created from this project?	3
How many jobs will be induced from this project?	4

#### Methodology used to estimate jobs:

As recommended in BTOP grant submission guidelines, we employed the Council of Economic Advisors methodology to produce Job-Years totals.

# 1. Job-years created

Applying the rule that \$92,000 of government spending creates 1 job-year: Total Budget \$986,060 / \$92,000 = 11 job-years.

# 2. Direct and indirect jobs

Applying the rule that 64% of the job-years represent direct and indirect effects: .64 x 11 job-years = 7 direct and indirect jobs at ZeroDivide and Tribal Digital Village, including jobs created from indirect costs.

#### 3. Jobs induced

Applying the rule that 36% of the job-years are induced effects:



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 $.36 \times 11$  job-years = 4 jobs. This is the equivalent of 4 FTE as contractors, educators and suppliers.

Adoption Metrics	
How many total new home subscribers (household accounts) to broadband do you expect to generate through use of BTOP funds over the entire life of the program funded?	4000
How many total new business and/or institutional subscribers to broadband do you expect to generate through use of BTOP funds over the entire life of the program funded?	50
How many total users of broadband in public computer centers or users of broadband outside the home (e.g., in a community college) do you expect to generate through use of BTOP funds over the entire life of the program funded?	750
What is the total cost of your project per new subscriber (household, individual, or institutional) or new end-user?	\$189.00

#### **Measuring Adoption Impact:**

Subscribership Baseline: A subscribership baseline for the target population will be determined utilizing the number of broadband subscribers to TDV's residential wireless broadband service, and the number of broadband subscribers utilizing other broadband services.

Program data will be collected, traced and measured to determine impact in the following areas: Home Subscribership/Use: Number of broadband subscribers to TDV's residential wireless broadband and other available broadband services; TDV residential network use patterns; TDV's website traffic; Number of community members who request the available free and discounted computers; and Patterns and purposes of home broadband use determined by survey of TDV residential subscribers. Community Anchor Institutions: Use of broadband at public access points in community anchor institutions will be measured to determine increase in use and impact of trainings. Technology Skills: An evaluation assessment tool (pre/post survey) will be used to measure increase in technology skill level due to digital literacy training. As an added training mechanism, participants will complete online subject-specific feedback surveys/assessment forms at each of the trainings, to garner the community participants' satisfaction with the seminars, and to monitor their broadband skills adoption rate. Uptake rates for more advanced training programs (e.g. Women's Audio Mission online audio recording training) will be monitored and documented. Community Content: TDV will actively monitor



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traffic on the SCTA and TDV websites to determine the increase in community members seeking tribal assistance and resources online. Community registration and participation in the Tribal P.E.A.C.E. (an online community digital content repository) will be monitored and measured. Jobs & Job skills: Surveys of subscribers and training participants will include questions to determine impact on obtaining jobs and job skills, including impact of broadband on job search activities, online or telecommuting opportunities, and/or increasing qualifications for a job. Youth participants in the TDV Shadow Project will be tracked to determine impact on their educational opportunities and advancement in IT careers. Qualitative methods such as individual interviews will be used to help determine impact of the Shadow Project. Life Impact: Surveys of subscribers and training participants will include questions to determine impact on their lives including access to health care, health care information, education, tribal services, e-commerce, telecommuting, increased connections with family and social networks, preservation of culture, heritage and language. Data Collection Methodologies: Program data will be collected through a variety of methods including surveys, online tracking systems such as Google Analytics, interviews, and focus groups. Data will be collected and analyzed using TDV's secure online database management platform on Salesforce.com.

Broadband Training Programs	
If you intend to provide training or education, how many people in total will your program(s) reach?	1000
How many hours of training do you expect to provide per person on average for each participant in your training program(s), through completion of training for that individual?	3
How many Full time employee (FTEs) instructors or facilitators will you employ for broadband and digital literacy training purposes?	4

#### Describe their qualifications (training and experience):

The primary coordinator for community training classes is Matt Rantanen, a Cree Indian and Tribal Digital Village Director of Technology since 2001. Matt has broad expertise in web development, graphic design, and network administration. He has a long history of working with the Southern California Tribal Chairmen's Association (SCTCA) tribal communities. Michael Peralta (Rincon-Luiseno Band) TDV Assistant Director since 2001, will assist with planning training classes. He is Cisco Networking Academy Certified and is highly skilled in



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facilitating technology & education programs. Prior to TDV, Michael was Assistant Director/Head Tutor at the Rincon Indian Education Center.

Geoff Herrin (Cherokee) TDV Assistant Director of Technology since 2003, a Microsoft Certified Systems Engineer, works on the implementation of training programs. All three men have extensive experience working in the tribal communities of SCTCA and will ensure that curriculum content is culturally relevant.

Paul Miranda (Mission-Pala Band) runs training programs at the Rez Valley Studios (RVS), a tribally owned recording studio on the Pala reservation that is open for public use. Paul has 5 years of direct studio experience, mixing and mastering audio, and shooting and editing video. Paul is certified in ProTools recording software.

Additionally, 10 memberships to Women's Audio Mission (WAM) will be available for tribal members; WAM uses broadband technology to offer online training courses & certification programs in the recording arts. Tribal residents will utilize RVS to participate in WAM's online vocational training services. WAM also provides training, counseling and job placement to women pursuing technology careers in music, radio, film, TV & the internet.

ZeroDivide has a network of experienced, technology practitioners local to San Diego for subject-specific trainings, as well as instructors from local community anchor institutions: UC San Diego, San Diego State University, CA Institute for Telecommunications & Information Technology (CalIT2); and Palomar Community College. TDV has previously used instructors from these organizations for tribal technology training programs and has great support from these institutions.

ZeroDivide Technology Manager Amro Radwan is providing assistance with curriculum development and training. Amro is responsible for ZD's internal information technology infrastructure. Amro also heads a technology-consulting firm that brings quality technology services to community-based organizations.

ZeroDivide utilizes the digital media curriculum/training program it developed with the Bay Area Video Coalition (BAVC). BAVC is a nonprofit media arts center founded in 1976 to identify applications for new technologies and to enable the sharing of diverse stories through art, education and technology. BAVC has a long history of developing and facilitating digital media production classes in diverse communities across the world.

Equipment Affordability Programs		
What is the total up-front cost of this equipment?	\$53,200.00	
T0	0	Households
If you are providing an equipment purchase or	0	Businesses



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loan program, for how many households, businesses and/or institutions do you expect to provide equipment or computers?	5	Institutions
If you are employing a loan program for purchases of service or equipment, what will be the total cost to the typical customer you assist over the life of the loan, including all interest and fees?	\$0.00	
How many broadband-related equipment units (e.g. computers, wireless devices) do you intend to purchase overall?	50	

Broadband Awareness Programs	
If you are conducting an awareness campaign, how many people do you expect your campaign will reach in total per year?	11000

Awareness Campaign Methods: Briefly describe the targeting, media, and messaging strategies your awareness campaign will employ.

Our broadband awareness campaign will reach 11,000 individuals on the Southern California Tribal Chairmen's Association (SCTCA) reservations and in neighboring communities. Tribal Digital Village (TDV) will work with tribal members to develop awareness campaign messages and materials focusing on the benefits of broadband adoption. The awareness campaign will also create and distribute information on broadband trainings and adoption programs.

A mix of linguistically appropriate, off-line and on-line methods will be used to execute the campaign through print and direct mail, on-line outreach, public service announcements, and inperson convenings.

Tribal offices and other community centers are the major gathering places on reservations. To take advantage of the foot traffic at these locations, flyers will be posted in tribal offices, libraries, schools and community centers. Direct mail pieces will be sent to all tribal homes to encourage broadband adoption and provide information on availability of broadband services and adoption programs. All materials will be produced by the tribally owned Tribal Training Print Source.



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A targeted email marketing campaign advertising the training classes will be used to reach all current TDV ISP customers, and to any other available tribal email addresses. Notices of the program will be placed on the SCTCA and TDV websites, as will notifications of the free/reduced-cost refurbished computers being made available through a partnership with the San Diego Futures Foundation.

Tribal members will develop public service announcements which encourage broadband adoption, provide information on TDV's wireless residential internet service, and advertise broadband training programs. These PSA's will be distributed via local reservation radio and televisions stations, the TDV website, at community anchor institutions, and through social media.

The public awareness campaign will include 3 informational public meetings in different geographical regions to ensure that the maximum number of residents on the most remote reservations will have an opportunity to learn about the benefits of broadband and the TDV adoption programs. Every effort will be made to ensure that these meetings include individuals with disabilities, seniors, and those who are less likely to be reached via other mechanisms.

#### Measuring Campaign Impact: Describe how you will measure the impact of the awareness campaign.

We will measure the impact of the Tribal Digital Village Broadband Adoption Program awareness campaign by the increase in the overall broadband adoption rate among the 8,900 residents of the 19 Southern California Tribal Chairmen's Association reservations and the additional 2,000 residents living adjacent to tribal lands.

More specifically, we will measure five indicators to determine the impact of the awareness campaign:

- 1. The number of inquiries received regarding the broadband programs;
- 2. The number of participants in the training programs;
- 3. The number of new broadband users at community anchor institutions;
- 4. The number of inquiries received about the residential wireless broadband services; and
- 5. The uptake of new wireless broadband services to individual homes on the reservations.

Program data will be collected from those making inquiries about and/or participating in the broadband training programs, and those making inquiries and/or subscribing to the TDV residential wireless service to determine if they were motivated by the public awareness campaign – and if so, what specific component of the campaign they found to be most effective.



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Data will be collected through surveys at each training, at public access points in community anchor institutions, and through online surveys for new broadband subscribers. Data will be collected on an ongoing basis and analyzed in correlation to specific awareness activities (i.e. when PSA's began airing). This collected data will be automatically linked to TDV's secure online CRM system, Salesforce.com, which is being provisioned through ZeroDivide. Using Salesforce as an online collection tool will allow us to quickly aggregate the feedback data for review and future curriculum design.

# J. Project Readiness

**Licenses and Regulatory Approvals** 

Not applied for.

### **Organizational Readiness**

ZeroDivide is a 501(c)(3) public foundation supporting technology adoption in underserved communities. Established by community leaders from California's most underserved populations, ZeroDivide has substantial expertise in working with disadvantaged communities to overcome barriers to technology adoption. In the past 10 years, ZeroDivide has built technology capacity for and/or increased technology and broadband adoption for 450 community anchor institutions. We have invested in the implementation of 5 large-scale broadband wireless networks and related broadband adoption programs (training, provisioning of low-cost or free computers, technical support, and content production) in underserved communities in California. ZeroDivide has a strong track record in fostering and supporting technology sustainability in these same communities. We have worked with 20 community anchor institutions, including Tribal Digital Village, to develop earned income revenue streams to support organizational sustainability by offering technology products or services which are competitive in commercial markets. ZeroDivide's staff skills and experience include: technology deployment and applications, cultural competency, program design and evaluation, collaboration, partnership development, business and social enterprise development, and organizational management. Tribal Digital Village was established in 2001 through a community planning process of the Southern California Tribal Chairmen's Association, initiated by a \$5 million grant from the Hewlett Packard Company. TDV was established to deploy a high-speed wireless internet data network linking the major community anchor institutions of 19 tribal reservations throughout Southern California. TDV led the construction and deployment of the network, trained tribal



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youth to participate in building and creating the network, and trained staff and residents on computer and internet use. Over the last 9 years TDV has continued to maintain the network, including customer service and troubleshooting network issues. The staff also coordinates network recovery from major disasters such as the San Diego fires of 2008. Partnership: The ZeroDivide/TDV partnership began in 2006 with a project to provide residential service to 22 reservation households in the remote Mesa Grande reservation through the TDV wireless network. In 2008, TDV and ZeroDivide expanded their partnership to provide internet-to-home wireless connections to an additional 200 homes across three reservations: Pauma, Rincon and Pala. ZeroDivide provides financial and business related technical assistance to assist TDV in testing its Internet Service Provider (ISP) business model. TDV has the infrastructure in place to support such an endeavor and already has 90% of the technology staff in place. This five-year partnership has provided valuable insight into the unique needs of the Native American community and sustainable broadband adoption models.

# **Project Timeline and Challenges**

Yr. 1, Q1: TDV continues existing rollout of home broadband access (HBA) to the Pala, Mesa Grande and Rincon Reservations; 1st phase of Broadband Awareness & Adoption Campaign (BAAC) and notice of home wireless network availability begins. Flyer design and production at Tribal Training Print Source in Pala. Flyers sent to tribal homes in the areas where ISP connections are currently being deployed; 1st meeting at an anchor institution on Pala, Rincon or Pauma Reservation to introduce communities to the availability of BAAC programs, Implement online survey data collection tool for use at training programs. Q2: Continue rollout of HBA to Pala/Rincon; 2nd phase of BAAC flyers sent to homes on Pauma & San Pasqual Reservations; 2 basic broadband access classes at anchor institutions in Pala/Rincon; Purchase and begin computer equipment upgrade at 4 tribal community anchor institutions; Initiate partnership with San Diego Futures Foundation (SFF) for refurbished computer donations for tribal homes; Launch the IT Training Shadow Project for community youth. Q3: Continue rollout of HBA to Pala/Rincon and begin rollout to Pauma & San Pasqual Reservations; 2 basic broadband access classes at anchor institutions in Pauma/San Pasqual; 3rd phase of BAAC flyers sent to homes on the Santa Ysabel & Los Coyotes Reservations; 2nd meeting at an anchor institution at Santa Ysabel or Los Coyotes to introduce the availability of Broadband Awareness & Adoption Program; ZD/Bay Area Video Coalition Digital Media training session at Rez Valley Studios. Introduce community to availability of Women's Audio Mission online vocational training; Continue computer equipment upgrade at 4 tribal community anchor institutions. Q4: Continue existing HBA rollout. Begin rollout to Santa Ysabel & Los Coyotes Reservations



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2 basic broadband access classes at anchor institution in Santa Ysabel/Los Coyotes 3rd phase of BAAC flyers sent to homes on Campo, La Posta & Manzanita Reservations 3rd meeting at an anchor institution at Campo, La Posta or Manzanita to introduce community to the availability of Broadband Awareness & Adoption Program; Continue computer equipment upgrade in 4 tribal community anchor institutions. Years 2-3: Continuation of the above established timeline. Broadband implementation and/or awareness & adoption campaigns in the following Reservations: La Jolla, Cuyapaipe/Ewiiaapaayp, Inaja-Cosmit, Jamul, Barona, Sycuan, & Viejas; Year 2 & 3 trainings become more advanced and subject specific as we include trainers from UC San Diego, San Diego State, CALIT2, Cal State San Marcos & Palomar Community College, Hold ZD/BAVC digital media training classes annually to peak/maintain community interest in the program, Home computer donations via SFF continue. Potential Challenges: Slower rollout of residential internet service if TDV's pending BIP application not approved; negotiating/maintaining interests of 19 different tribes; demand for training outpace program.

**SPIN Number** 

# K. Environmental Questionnaire

Does the proposed action involve the procurement of materials? If so, will the materials be installed, stored or operated in an existing building or structure? If yes, please click "Add" to include the list of equipment and peripherals to be procured.

Yes

(2) Sony VAIO CPCF11 Intel Core i7 Notebook, (3) HP ProBook 4710s Intel Core 2 Duo Notebook, (1) HP Elitebook 8530w Notebook, (1) Epson PowerLite Multimedia Projector, (1) Viewsonic Pro8100 Projector, (1) Elite Screens VMAX2 Projector Screen, (40) Intel Core 2 Duo, Windows 7 Professional PC

Does the proposed action involve procurement of electronic equipment? If yes, will the equipment be disposed of in an environmentally sound manner at the end of its useful life?

Yes



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Does the proposed action involve construction, remodeling, or renovation? If so, will these activities be limited to only minor interior renovations to a structure, facility, or installation? If yes, click "Add" to include a description of the proposed renovations with your project summary.

No

Does the proposed action involve the production and/or distribution of informational materials, brochures, or newsletter?

Yes

Does the proposed action involve training, teaching, or meeting facilitation at an existing facility or structure? If yes, click "Add" to explain.

Yes

Training sessions at 4 Flagship technology training centers (Pala Learning Center/Library, Rincon Indian Education Center/Library, San Pasqual Education Center/Library and The Barona Museum) and satellite training centers at Tribal community anchor institutions throughout the reservations.

Does the proposed action involve ground or surface disturbance to accommodate new fiber optic cable? If yes, please click "Add" to include a description of the extent of service upgrade, a list of the permits required, and linear footage of underground fiber optic cabling required.

No

Does the proposed action involve an upgrade of broadband service to an existing facility or structure? If yes, please include a description of the extent of service upgrade, a list of the permits required, and linear footage of underground fiber optic cabling required?

No



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# Uploads

The following pages contain the following uploads provided by the applicant:

Upload Name	File Name	Uploaded By	Uploaded Date
Management Team Resumes and Organization Chart	TDV Management Resumes.pdf	Guillermo, Tessie	03/12/2010
Management Team Resumes and Organization Chart	ZD Management Resume and Org Chart-TDV.pdf	Guillermo, Tessie	03/15/2010
Government and Key Partnerships	SCTA Commitment Ltr.pdf	Guillermo, Tessie	03/10/2010
Government and Key Partnerships	SCTA Public Official Ltr.pdf	Guillermo, Tessie	03/10/2010
Government and Key Partnerships	SDFF Support Letter.pdf	Guillermo, Tessie	03/12/2010
Historical Financial Statements	ZeroDivide 2009-2008 Financial Stmnts.pdf	Guillermo, Tessie	03/10/2010
Historical Financial Statements	TDV March2009 Audit.pdf	Guillermo, Tessie	03/10/2010
Historical Financial Statements	SCTCA_Audit_08.pdf	Guillermo, Tessie	03/10/2010



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Community Anchor Institutions Detail	TDV Anchor institution form.xls	Guillermo, Tessie	03/12/2010
BTOP Certifications	ZD BTOP Certification.pdf	Guillermo, Tessie	03/10/2010
Detailed Budget	TDV SBA Budget Detail - Upload.xls	Guillermo, Tessie	03/15/2010
SF424 A Budget	SBA SF424A Form- TDV.pdf	Guillermo, Tessie	03/15/2010
SF424 B Assurances - Non-Construction	SF424B ZeroDivide .pdf	Guillermo, Tessie	03/12/2010