

**Broadband Infrastructure Application
Submission to RUS (BIP) and NTIA (BTOP)**

Submitted Date: 8/20/2009 4:59:34 PM	Easygrants ID: 1772
Funding Opportunity: Broadband Initiatives Program and Broadband Technology Opportunities Program	Applicant Organization: Avanzar Networks Incorporated
Task: Submit Application - Infrastructure Programs	Applicant Name: Mr. Tim Sylvester

C. Executive Summary

Executive Summary of Project for BIP and BTOP:

8. Infrastructure Projects Executive Summary

Avanzar Networks is an Internet Service Provider whose mission is to deliver broadband internet access to low income communities in California’s Central Coast. Avanzar Networks was started by a husband and wife team, combining their 40+ years of experience of computer engineering and networking, marketing [REDACTED] ment, and community organizing to open economic opportunities to low income families, particularly Latino immigrants, by increasing broadband internet access. The Spanish word “Avanzar” means “to advance.” It is Avanzar Networks mission to enable low income families to advance their social and economic opportunities through access to the Internet.

Overview: Avanzar Networks is participating in a collaborative of community, educational and government institutions called the Tec Familiar (Family Technology) program to provide low income families in Santa Cruz County with free and low-cost broadband internet access, along with training and content delivery relevant to pursuing greater economic opportunities. Avanzar Networks is applying for the Broadband Infrastructure grant program with this application, while Community Bridges will apply for the Sustainable Adoption grant and the Santa Cruz Adult School will apply for the Public Computer Centers (PCC’s) [REDACTED]

Avanzar Network’s Broadband Infrastructure grant application is to provide affordable broadband internet service to residents living in the Live Oak and Beach Flats communities. While broadband internet access is generally available to these families, it is not affordable and many lack computer skills and access to computers. In response, Avanzar Networks will build a wireless network using WiMAX technology. WiMAX technology allows Avanzar to quickly and economically install a broadband connection in Tec Familiar homes and PCCs. The wireless network will become a permanent community asset that will bridge the digital divide in Live Oak and Beach Flats.



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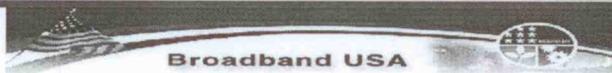
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Need: The service areas of Beach Flats and Live Oak together include 7,618 households. The service area also includes several major health care facilities: Dominican Hospital, Sutter Maternity and Surgery Center and offices for hundreds of doctors. The County Sheriff has a service station in the middle of Live Oak. The Live Oak School District serves over 2000 students in 3 elementary schools, 1 middle school, and 2 charter schools.

Avanzar Networks found that reliance on the Census Tract data did not accurately depict broadband penetration rates. For example, in Live Oak, one Census Tract contains a 107-unit trailer park adjacent to a 32-unit housing development with million dollar homes. In Beach Flats, 97% of the residents are renters and 39% live below the poverty level. However, Beach Flats shares the same Census Tract as the Beach Hill neighborhood with 120-year-old Victorian houses with ocean views.

The communities of Live Oak and Beach Flats were determined to be underserved areas by a methodology of using Census Tract data and the indicators for predicting broadband adoption published in a statewide survey by the Public Policy Institute of California (PPIC), Californians and Information Technology. The PPIC survey shows that the best indicators for low broadband adoption are: Latinos that speak Spanish in the home (17% have broadband), people with incomes less than \$40K per year (33%), people who did not go to college (32%) and Latinos in general (34%). Using Census data and the PPIC information, the broadband adoption rate was estimated for each Census Block Group. The predicted broadband penetration rates for each Census Block Group were aggregated to the Census Tract level and compared against the actual broadband penetration rate information from the California Public Utility Commission and the Federal Communications Commission.

Beach Flats is a neighborhood within the City of Santa Cruz with over 1000 residents; 82 percent who are Spanish-speaking with median incomes of \$19,138. Only 10 percent of adults have a highschool diploma. The poverty rate is 38%. The community of Live Oak is made of 28,816 households, the third largest population center of Santa Cruz County, but lacks many essential services since it is unincorporated. The median household income is \$44,964 with 14.4% of Live Oak's children living below poverty. Live Oak families are increasingly Latino immigrants. The Live Oak School District serves over 2000 students of which, 49% are from Latino families, with the student population made of 38% of English-learners. Over 47% of school children are eligible for free or reduced lunch.



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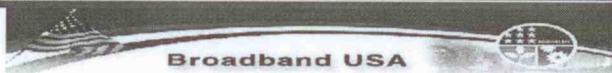
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The digital divide in these low income communities translates directly to reduced educational advancement and thus, economic opportunities. The effects of the divide have been studied and documented by University of California Santa Cruz economics professor, Dr. Robert Fairlie. Dr. Fairlie's 2005 study called "Are We Really a Nation Online? Ethnic and Racial Disparities in Access to Technology and Their Consequences," found the digital divide to be greater among Latino and Black children than whites: only 40.5 percent of blacks and 38.1 percent of Latinos have Internet access at home, compared to 67.3 percent of white students. His study also concluded that teens who have access to home computers are 6 to 8 percentage points more likely to graduate from high school than teens who do not have home computers, even after controlling for individual, parental, and family characteristics.

Proposed Service Model: Avanzar will offer income eligible consumers Broadband Lifeline Internet service for \$10 per month; other providers charge \$20 to \$45 per month for an equivalent service. Broadband Lifeline will use the same income eligibility guidelines as Lifeline (www.lifeline.gov), a discounted phone service all phones companies are required to offer to income eligible consumers for approximately \$6 per month. This low-cost fee for broadband access will serve to meet the BTOP purpose for stimulating demand for broadband access.

Avanzar Networks will provide broadband Internet access in the funded service area with at least 1 Mbps and up to 6 Mbps. Users will be able to use any legal broadband application including VoIP (Skype, Vonage, etc.), video (Hulu, YouTube, video chat, etc.). Avanzar Networks will not discriminate against other service providers. Other Internet Service Providers will be able to purchase access on the network and resell it to their customers.

Tec Familiar Partners: While Avanzar Networks is an applicant for the Broadband Infrastructure grant program it is doing so as part of a larger community-wide collaborative called Tec Familiar, which translates to "Family Technology." Tec Familiar partners include Community Bridges, a county-wide nonprofit provider of human services to 20,000 persons, and the Santa Cruz Adult School, who serves 7000 students with ESL, GED, computer literacy and basic skills, along with several other partners to promote sustainable adoption. The Tec Familiar program recognizes the synergistic value of providing low income families in Santa Cruz County with free and low-cost broadband internet access, along with training and content delivery relevant to pursuing greater economic opportunities.



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Qualifications: The CEO of Avanzar Networks has over 20 years experience in computer networking and business startups. As a new ISP, Avanzar Networks will be contracting with [REDACTED] provide CPE installation services for customers that require outdoor CPE; front line technical support for customers via phone and e-mail; and the backhaul connection to the Internet for the WiMAX network. Avanzar will also contract with [REDACTED] who has over 15 years of experience designing and deploying wireless data networks.

[REDACTED]

Impact: Within five years, approximately 700 additional households will subscribe to broadband Internet service through the Avanzar WiMAX network. This represents a 9.2% increase in the underserved areas of Live Oak and Beach Flats who will participate in the Tec Familiar program. In addition to covering the proposed funded service areas, the WiMAX network will reach 31,714 households with 76,383 people including the downtown area of Santa Cruz and the harbor. Within five years, approximately 3,400 households in total will be Avanzar subscribers. This project will create four permanent positions for employees at Avanzar Networks. Also, two four-month positions for developing the billing, CRM and provisioning software will be created. The overall infrastructure cost will be \$923,115.

In summary, this application for Broadband Infrastructure will serve to provide access to consumers residing in “underserved” areas of Beach Flats and Live Oak. As a collaborator in the Tec Familiar program, Avanzar Networks will be partnering with educational, nonprofit and public institutions to develop sustainable adoption strategies that will that serve the health, education, and job training needs to advance the economic opportunities of our families in Santa Cruz County.

Description of BTOP Project Purpose (BTOP Applicants Only Next Three Questions)