Executive Summary

The central California foothills region has been hit harder by the economic downturn than the rest of the state and much of the nation. The local lumber industry has been shut down, resource based industries such as cement production have vanished. Education is no longer an anchor industry, with dozens and dozens of recent layoff notices for teachers on top of last year’s massive cutbacks. The local mining industry no longer thrives and mines sit un-worked. Large retail stores have gone under and a major hospital closed. And the real estate development sector has crashed. Nearby cities unfortunately lead the entire nation in the foreclosure rate. With a record 17% unemployment rate, Calaveras County, in the center of the foothills region, is in dire straits. This rate is way above the California rate and 70% higher than the United States unemployment rate. Additionally, the region has been nearly bereft of reliable broadband connectivity. 79% is either unserved or underserved. Much of the existing coverage hugs the few scattered highways, resulting in lack of coverage a few blocks off the highway, even in the few small cities such as Angels Camp where there is no actual assurance of service within the city limits. Furthermore, coverage that exists falls well short of needed broadband speeds. Bandwidth and backhaul enhancements are critically necessary. In response to the documented shortage of affordable access to broadband Internet in the Central Sierra region identified in an Aggregation of Broadband Demand Project, led by the Amador Tuolumne Community Action Agency, the Central Sierra Economic Development District (CSEDD) hereby applies for Middle Mile grant funding under the U.S. Department of Commerce's National Telecommunications and Information Administration's (NTIA) Broadband Technology Opportunities Program (BTOP). The total CSEDD project equals $28,901,872, and will seek ARRA funding of $19,550,093 with non-federal matching funds of $ 9,351,779, almost 1/3 of the budget, committed in support of the project. The goal of the project is to bring fast, robust, reliable and affordable broadband Middle Mile backbone Internet connectivity to the needy region. The project will generate 134 direct job-years, 67 indirect job-years and 113 induced job-years. The CSEDD has extensive Federal grant management experience in its 34-year history of serving the needs of the economically disadvantaged in the region. It has developed a three-pronged approach to an effective public-private partnership. The cornerstone of CSEDD's strategy is partnering with the local cellular carrier, Golden State Cellular, which endeavors to add broadband to its network, and two local telecommunications providers, Volcano Communications and Calaveras Telephone, which provide triple play services in selected areas of the overall region. Secondly, numerous public entities support the project, including Alpine, Amador, Calaveras, and Tuolumne Counties. These are the direct focus of CSEDD's leadership team. Further, the California State Office of the Chief Information Officer (OCIO) supports the project. By leveraging the resources of these partners, the project can significantly enhance the ability to deploy a
broadband solution quickly and at a significantly reduced cost. Thirdly, to maximize the value brought to the region by partnering with others in the local community, CSEDD has aligned itself with three other ARRA applicants for Round 2 funding: the Mother Lode Broadband Project, the Tuolumne County Rural Remote Broadband Project, and the Central Sierra Connect Neighborhood Information Public Computer Center Project. These conjoined projects will address a common lack of technology resources in the exceedingly rural and isolated region of Northern California. Isolation is a breeding ground for economic problems. The key issue is lack of economy of scale which inhibits business development resulting in a further loss of jobs and foreclosures. Calaveras County is building a new jail and will contract with other nearby counties to ensure an economically viable population. Meanwhile, Tuolumne County is building a new juvenile facility. Both facilities will be equipped with modern broadband capabilities to ensure further cost advantages. Bandwidth and backhaul are all that will be lacking once these new facilities are completed. The CSEDD has identified 144 targeted local community facilities including: K-12, healthcare, regional libraries, two local community colleges, public safety agencies such as all four county Sheriff's and Fire Departments, local government and community-based organizations. In addition to the identified, targeted facilities, this project will also serve a severely economically distressed area of Northern/Central California. The regional unemployment rate consistently tracks higher than the state average, which is in turn much higher than the US rate. In December of 2007 the state unemployment rate was 5.4% while the Central Sierra region struggled at 6.7%. Currently the four-county area has an unemployment rate of 14.73%. According to census data 20.2% of residents are below poverty level and an average of 51% have income below the median income level, and thus qualify as part of the targeted income group for federal grant programs such as HUD. Access to broadband and emerging technology is an essential ingredient to allow these communities to thrive. CSEDD's strong team of community leaders including public, private, business and nonprofit organizations share deep concerns about how future lack of access will impact the region and recognize that affordable access to technology is critical to the health, well-being and future of every citizen. Demand for public access to broadband has been documented and these communities are ready to move ahead with bold strategic steps for significant, community-wide improvements to close the Digital Divide. Bringing robust and affordable broadband to the region will strengthen local economic vitality significantly by attracting businesses and enabling existing small businesses to compete in the global marketplace. The drawbacks of abundant isolation must be addressed. Geographic challenges contribute to the physical isolation. Much of the terrain is mountainous with low densities, and clearly very expensive to serve. Thus, plans to serve these targeted institutions must be tailored to the local topography so as to efficiently overcome the Digital Divide with intelligent solutions. The chosen design platform includes a hybrid fiber optic and microwave network with 20 points of access. Fiber optic cable can provide virtually unlimited bandwidth. The project will create four open fiber access points to serve anchor tenants and last mile providers. From the fiber backbone, the project proposes to extend broadband availability using microwave technology. The extreme geography and terrain in the region thus becomes an asset for building a microwave network. Microwave technology is a reliable and proven broadband solution and will provide 16 access points to serve anchor tenants and last mile providers. Using this hybrid approach, the project can deploy a very robust broadband network capable of meeting future demands in a very short period of time. Throughout the four-county region, surveys reveal the theme is clear with both residents and businesses: there is an immediate need for the affordable, fast, reliable broadband service that CSEDD's
Middle Mile project will provide. The inter-locking partnerships already in place provide the strength of the project. CSEDD does not just propose to ramp up from scratch. This Consortium is comprised of an executive team representing the public jurisdictions, a dominant microwave technology provider, a Tier 1 Internet backbone supplier, an experienced, profitable, locally owned County-based network operator, all closely coordinated by a project management and systems integration company with a proven track record in successfully organizing, managing and deploying large, complex technology and telecommunication installations for public agencies in the state of California. The proposed network operating partners are currently operating numerous broadband services networks. Owners of Golden State Cellular, Operator of the CSEDD network, presently own, operate and service broadband networks in California. Nothing new needs to be created to ensure excellent network support. The project is currently ready for business. The challenge of lack of available bandwidth locally can be addressed in this broadband-starved landscape with the assistance of BTOP funding.