The Siskiyou County Office of Economic and Community Development has planned an Internet Middle Mile network using multi-gigabit Microwave funded by the BTOP. As a remote, rural county the size of Connecticut with dispersed population the costs of building a middle mile network are high. If not for a BTOP capital investment a middle mile network could not be built. Ironically, the fiber that forms the west coast Internet backbone passes through Siskiyou County, but does not have an access point here. Without a middle mile network there is no aggregation point that makes it cost effective to create an access point to this fiber. Our plan changes this and finally delivers wholesale Internet over a middle mile network for the use of our ISP’s, community anchor tenants, and other end users. The need for this grant is clear: 76% of the county is unserved or underserved. Siskiyou County, geographically the 5th largest county in the state of California, covers more than 6,347 square miles in the northernmost section of California with a population of approximately 44,301 people. The county includes 9 incorporated cities including Dorris, Dunsmuir, Etna, Ft. Jones, Montague, Mt Shasta, Tulelake, Weed and Yreka, plus another 10 unincorporated population centers. The county has 32 local k-12 schools and local education agencies which serve some 6,200 students, as well as a local community college. The county also contains 150 institutions (anchor tenants) that support local, state and federal emergency, health and support services. The proposal addresses all five of the BTOP statutory goals, and presents a solution in partnership with the Office of the State Chief Information Officer. The county has a consistently high unemployment rate, currently (& consistently) twice the state average, and at 18.6% today it ranks 6th highest among California’s 58 counties. According to census data over 18% of residents are below poverty level and an average of 51% have income below the median income level for the area and thus qualify as part of the targeted income group for federal grant programs such as HUD. The County has been unable to attract new businesses and jobs to the area because of the lack of communications infrastructure required for a business to be competitive in today’s economy. This project will enable cost effective services for businesses and consumers resulting in job growth and population retention. Siskiyou County has a total of 18,556 households and 2,452 businesses, 150 potential community anchor tenants including government, schools, libraries, Tribes, and healthcare. Our proposal will benefit all of them. Rural broadband is an issue that affects all the communities in Siskiyou County. Each city supports the Siskiyou County Economic Development Council (SCEDC) in pursuing this critical infrastructure. The SCEDC has formed a Broadband Coalition of local ISP/WISP providers, k-12 Education, Community College, healthcare, Karuk Tribal Council, business leaders, backbone service providers, Siskiyou Telephone (a former RUS Borrower) and public elected officials. The SCEDC has assessed the need and the opportunity, and has created the Siskiyou County Broadband
Consortium (SCBC), a collaborative public-private team to bring broadband to rural remote Siskiyou County. The SCBC was established to address the lack of convenient, affordable broadband connectivity throughout the county. Currently, broadband is available only in very small service areas. Broadband services are primarily DSL and are limited by the distance from a Telco Central Office (CO). Expensive low speed (DSx 1.5Mb/Sec- 45Mb/Sec) middle mile is backhauled from Redding, 70 mile to the south, to these CO’s. This leaves large sections of the County without affordable Broadband service. Wireless broadband is an option; but, the hardware costs of more than $700 for equipment and installation along with the burden of an expensive middle mile make the wireless financially prohibitive for the majority of our residents. All of the currently available solutions (in the limited offering area)average more than double the monthly recurring costs of broadband in metropolitan areas. The lack of middle mile, the costs of backhaul, and the limited bandwidth available inhibit the feasibility and affordability of broadband service to rural remote Siskiyou County. The Consortium will provide an open, middle mile broadband infrastructure that will allow internet service providers points of connectivity to broadband access. The Consortium proposal is an open system connecting into the wholesale internet. The terrain of Siskiyou County is an asset for building a microwave network instead of a hindrance to building a fiber network. Microwave technology is a reliable and proven broadband solution, and is pervasive throughout the world. With no major disruptions, legal battles and certain delays accompanying any fiber buildout, we will create and sustain a microwave network backbone through new radios on existing towers. Many of these towers are managed by the State of California CIO’s Public Safety Communications Division (PSCD). The state has agreed to lease tower access to us. All of these factors reduce risk and shorten timeline. Our deployment will be done in months not years, at a fraction of the cost of a traditional fiber backbone. We have already made arrangements with a Tier-1 carrier operating a major fiber route traversing Siskiyou County. Existing regeneration stations in the cities of Dunsmuir and Montague are available to create Siskiyou County access points for our middle mile network eliminating the prohibitive expense and distance limitations associated with the current practice of backhauling traffic over 100 miles to carrier Points of Presence (POPs) in southern Oregon and Redding, CA (Shasta County). Finally, the program provides for open access allowing community anchors, government, healthcare, libraries, business, tribal and citizen consumers. The sustainable business is funded by rates that are projected to be competitive with rates charged today in major metropolitan areas. The middle mile network operator’s business model is based on operating the network on principles of openness and interconnectivity espoused under the ARRA BTOP. The citizens of Siskiyou County have joined together in collaborative efforts to bring growth, sustainability and economic opportunity to the region. All 9 cities and the county have formally joined together to obtain State recognition as an Enterprise Zone. This successful designation put economic development at the top of the strategic plan for all communities. The SCEDC was named by unanimous resolution in all 10 jurisdictions as the leader in Economic Development for the county. This leadership and collaborative style made the SCEDC the logical choice to take the lead bringing rural broadband connectivity to Siskiyou County. The SCEDC designed and created the Siskiyou County Broadband Consortium to implement this public/private partnership and present the middle mile opportunity for Siskiyou County. 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 Siskiyou 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. In addition, our initial subscriber projections include 36 community anchor tenants, 13 businesses, and 4 ISP’s. Utilizing current, competitively bid, government procurement schedules including statewide sourced contracts, California Multiple Award Schedules (CMAS), as well as soliciting competitive bids for other product and services, the total cost for implementation and deployment of the Siskiyou Broadband Middle Mile Project is $16,970,290. Our project’s need, the state’s broadband priorities, and our budget sustainability have been validated by the fact that California Public Utility Commission will be providing a cash matching grant of $1,733,786. Our proposal will increase broadband penetration in Siskiyou County by 90%. This investment will also generate 184 job-years with 118 of those jobs being Direct/Indirect jobs and 66 induced jobs. These figures are derived from the White House whitepaper on estimates of job-years created as referenced in the BTOP Application Guide.