

California BROADBAND COUNCIL

Success Story

Central Coast Broadband Expansion

The Challenge

More than 100,000 people in the Salinas and Pajaro valleys and other rural areas of California's Central Coast did not have access to broadband service that met state or federal minimum standards. The businesses and institutions they relied upon for jobs and services could not grow because of the lack of broadband infrastructure and willing telecommunications providers.

The Solution

Engage local governments, economic development organizations and independent Internet service providers (ISPs) and enable them to:

1. Support initiatives by the University of California, Santa Cruz (UCSC) to develop two open access, middle-mile fiber routes connecting the region to major Internet hubs via funding from the Corporation for Education Network Initiatives in California (CENIC), the California Advanced Services Fund (CASF) and private sources.
2. Build independent fiber to the premise and other systems that use these middle-mile routes to connect communities within the region, serve consumers and businesses in these communities, and obtain wholesale Internet access at Silicon Valley price and quality of service levels.
3. Participate in proceedings before the California Public Utilities Commission (CPUC) and other regulatory agencies, with the objective of encouraging, by various means, incumbent telecommunications companies to upgrade their infrastructures and services in the region.

The Provider

- AT&T
- CENIC
- Charter Communications
- City of Watsonville
- Comcast
- Cruzio
- De Novo
- Etheric
- Extenet
- Frontier Communications
- Geolinks
- OpticAccess
- Pinnacles Telephone Company
- Razzolink
- Redshift
- South Valley Internet
- Sunesys/Crown
- Castle
- Surfnet
- Wave Broadband

The Goals

- 1 Make commercial and industrial-class broadband facilities and services available to businesses, institutions and retail ISPs in the region at price, capacity and quality levels equal to Silicon Valley.
- 2 Give every home and small business in the region access to competitive broadband providers that offer affordable services which, initially, meet state and federal standards.
- 3 Develop the competitive environment and infrastructure necessary to deliver a full range of broadband services. Ensure these services meet the standards determined by local agencies and regional leaders to be necessary for the development of, and full participation in a 21st Century economy and society.

The Customer/Community

- City of Hollister
- City of King
- City of Marina
- City of Salinas
- City of San Juan Bautista
- City of Santa Cruz
- City of Seaside
- City of Soledad
- County of Monterey
- County of San Benito
- County of Santa Cruz
- CSU, Monterey Bay
- Hartnell College
- Monterey Bay Economic Partnership
- Monterey County Business Council
- San Benito County Economic Development Corporation
- Santa Cruz County Business Council
- University of California, Santa Cruz

The Implementation

The Central Coast Broadband Consortium (CCBC), which dates back more than 20 years, became the coordinating body for regional broadband planning and projects in Monterey, San Benito and Santa Cruz counties. Building on regional broadband infrastructure grant proposals submitted to CASF and the federal American Recovery and Reinvestment Act program, the CCBC obtained CASF consortia funding from the CPUC to develop and support state and federal broadband infrastructure project grants, and publicly and privately funded initiatives. The City of Watsonville provided seed funding and serves as the consortium's fiscal agent. This work included coordination of middle- and last-mile projects, adoption of broadband-friendly policies, analytical and GIS assistance for providers, project developers and local agencies, broadband advocacy and community organization. Tellus Venture Associates was the CCBC's project lead.

UCSC engaged CENIC and Crown Castle (formerly Sunesys) to:

1. Build a middle-mile fiber route over the Santa Cruz Mountains, connecting Santa Cruz to major Internet hubs in Silicon Valley.
2. Apply for and receive a CASF grant to build a middle mile fiber route from Santa Cruz, through the Pajaro and Salinas valleys, to Soledad (the Connected Central Coast or C3 Project).

With key support from UCSC, the CCBC worked with local ISPs to develop and submit several CASF infrastructure grant proposals, including two Surfnet residential FTTP projects approved for connection to the C3 route, one by Pinnacles Telephone Company to upgrade facilities in rural San Benito County, and one by South Valley Internet to provide FTTP service in a rural Santa Clara County community bordering the Pajaro Valley.

The City of Gonzales intervened in the CPUC's review of Charter Communications purchase of Time Warner and Bright House Cable System in California, and was later joined in this effort by the County of Monterey. Charter's cable systems in the Salinas Valley, parts of the Pajaro Valley and the communities in between were analog-only networks incapable of providing broadband or other advanced services. As a result, Charter was required to upgrade these systems and deliver full digital service, consistent with what it provides in more affluent communities. The C3 route is the middle mile fiber backbone that made these upgrades possible.

The City of Watsonville, which is the Pajaro Valley's economic hub, built an open access, municipal dark fiber network and data center that is connected to the C3 route, and recruited Cruzio and OpticAccess as commercial service providers.

The City of Santa Cruz entered negotiations with Cruzio that resulted in the privately funded construction of an FTTP system initially serving residents and businesses in central Santa Cruz. This initiative provided sufficient market pressure on Comcast leading it to upgrade its plant to DOCSIS 3.0 standards, and on AT&T leading it to build competing FTTP facilities. Cruzio's Santa Cruz hub is connected to Silicon Valley by the original UCSC/Sunesys fiber route. It supports Watsonville operations and provides other services to the region via the C3 route.

Relying upon the C3 route, the cities of Salinas and Gonzales issued RFPs for a commercial/industrial class fiber network and universal residential service. These projects are currently in progress.

Using research and templates developed by the CCBC, many local agencies, including the cities of Gonzales, Santa Cruz, Watsonville, Salinas, Seaside, the counties of Santa Cruz and San Benito, and the Monterey Airport District, adopted the “Dig Once” policy, among others, designed to encourage construction of broadband infrastructure. These policies resulted in the construction of facilities that directly supported FTTP networks in Watsonville and Santa Cruz, and broadband conduit elsewhere.

The CCBC supported federal grant proposals by Redshift and DeNovo for wireless service in the Salinas Valley, and a parallel initiative by the City of Marina.

The Monterey Bay Economic Partnership (MBEP), working with the CCBC, convened community leaders and conducted market research to establish a regional standard for minimum acceptable broadband service. The results of this work are due to be published. MBEP also has a long-standing Tech Ecosystem development program that informs and relies upon the CCBC’s broadband infrastructure development efforts.

The CCBC continues to develop broadband infrastructure partners and projects. Extending the C3 route through the Salinas Valley to San Luis Obispo and into San Benito County is a major objective.

Tellus Venture Associates is the CCBC’s project lead and provides broadband infrastructure development and policy consulting services to local agencies in the Central Coast region, including the cities of Salinas, Gonzales, Santa Cruz, Watsonville, Seaside and Monterey. Tellus Venture Associates has also provided market and financial analysis, and grant application support to local ISPs, including Cruzio, Surfnet and Redshift.

Results

At least 95,000 of the 100,000-plus people in the Salinas and Pajaro Valleys identified as under or unserved now have access to affordable broadband service that meets or exceeds the U.S. Department of Agriculture and Federal Communications Commission’s standard of 25 Mbps download and 3 Mbps upload speeds. This speed far exceeds the California state standard of 6 Mbps download and 1 Mbps upload speeds. Major companies and anchor institutions throughout the region have access to commercial and industrial class broadband infrastructure and services at prices and service levels comparable to Silicon Valley benchmarks.

Urban centers in the region’s four largest cities – Salinas, Watsonville, Santa Cruz and Hollister – are served by high-capacity, open-access, dark fiber networks that provide the foundation for continued economic growth, locally and regionally. All four cities are increasingly integrated into Silicon Valley’s economy: Santa Cruz and Hollister are destinations for startups, established companies looking to expand and high-tech workers seeking a better lifestyle. Watsonville and Salinas are centers for agricultural technology development and investment.

Key Success Factors

- Proactive and cooperative leadership by local governments, elected officials, economic development and broadband professionals, independent Internet service providers and, particularly, the University of California, Santa Cruz.
- Coordinated development of various independent projects and initiatives that depend upon each other for success.
- Successful engagement with incumbent cable and telephone companies based on agreed terms, supporting market competition and regulatory action, as needed.
- An interdisciplinary approach connecting key stakeholders, such as technologists, telecommunications specialists, public works, and marketing and policy professionals, to work towards common, regionally focused goals.
- Funding from grants and programs, such as CASF middle mile infrastructure subsidies (no longer available due to AB 1665), state and federal last mile infrastructure grants and programs, and CASF consortia funding.